Chapter 5 : The use of mensuration signs in French and Italian notational systems: Observations concerning theory, practice and semiotic intertextuality

...notandum quod antiqui, ymmo et moderni licet raro, ponebant talia signa ut cantor primo aspectu sciret cognoscere cuius mensure esset cantus sibi propositus.¹

In a recent article discussing the origins and early use of the so-call cut or *tempus perfectum diminutum* sign (ϕ), Margaret Bent stated: "Among a great variety of proportional signs and colorations used around and after 1400, very few notational usages could have been viewed as standard representations of particular temporal relationships; conversely, very few temporal relationships enjoyed monopoly of a single sign."² Indeed, few historians of musical notation would disagree with the view that notational practice in the polyphony of the late fourteenth century in France and Italy is in general marked by a great flourish of notational experimentation and innovation motivated especially by concerns for the representation of rhythmic nuances integral to its various styles. It is in the music of the *ars subtilior* that a peak in the breadth of notational devices can be observed not only in the use of special note forms, but in the use of mensuration signs. Yet, the use of mensuration signs in this style extends beyond merely indicating extrinsically changes in mensuration, but also to signalling intricate proportional relationships between voices.

The initial impetus behind this chapter was to fill some of the gap, lamented by certain musicologists,³ between the comprehensive scholarship on these signs in contemporary musical theory and their practical use in extant sources.⁴ Thus, this chapter

¹ "...it should be noted that the ancients, and indeed the moderns although rarely, did place such signs so that the singer at first sight might understand and recognise the mensuration of the song placed before him." Thus writes Prosdocimus de Beldemandis on the use of mensuration signs in 1404; *vid.* F. Alberto Gallo, (ed.), *Prosdocimi de Beldemandi Opera 1: Expositiones*, Chap LVI, sent. 18.

² Margaret Bent, 'The early use of the sign ϕ ', *Early Music*, vol. 24, no. 2, 1996, pp. 202.

³ Peter Lefferts, 'Review: Mensuration and Proportion Signs: Origins and Evolution', *Music and Letters*, vol. 76, no. 1, 1995, p. 80.

⁴ The most comprehensive studies of mensuration signs in French notation are: Busse Berger, op.cit.; Johannes Wolf, op.cit., vol. 1, pp. 91-103; J. A. Bank, Tactus, Tempo and Notation in Mensural Music from the 13th to the 17th century, Amsterdam, 1972.

begins at the beginning of the fourteenth century, when developments in mensural notation, both north and south of the Alps, saw an increased number of possible musical divisions of time being indicated by notation. From its earliest stages, the theorists of mensural notation realised the need to indicate changes in mensuration extrinsically and hence the need for distinct signs. Yet, an examination of the French and Italian mensural traditions suggests less uniform elements existed in the theories of mensural signs in France and Italy. Additionally, there is little evidence in practical sources until the last quarter of the fourteenth century that mensuration signs in both mensural systems were seen as necessary when the mensuration of most works could be readily determined from intrinsic elements.

This situation affords an opportunity to observe the use of mensuration signs in musical notation in terms of a cultural process. It is in this light that I examine the reception of French notational processes into the early fifteenth century re-notation of the works of two mid-fourteenth century masters of Florence, Lorenzo Masini and Gherardello da Firenze. In highlighting the processes adopted by early fifteenth century Italian scribes to translate notational elements native to mid-century Florentine notation, I seek to bring into relief the influence of late fourteenth century, French notational process, largely associated with the *ars subtilior*, upon scribes in Italy. This situation informs the reader not only of the cultural values espoused by particular scribes, but it brings to the foreground the dynamism of subsequent scribes in the preservation, modification and cultural re-invigoration of older repertoires.

The situation that will been seen in relation to the transmitted works of the *ars subtilior* parallels in many respects scribal process witnessed in relation to the late transmission of *trecento* repertoires. I argue that the scribal record of the *ars subtilior* and associated repertoires reflect various stages of notational process. These various mensural states shift from transmission to transmission, so that re-notation often resulted from a new scribal context. Based on the assumption that different cultural contexts evoked various mensural practices, I locate specific examples of semiotic intertextuality in the works of Matheus de Sancto Johanne and Philipoctus de Caserta. The presence of limited notational processes among works thematically and chronologically linked suggest the existence of a particular notational culture which may have had its origins in southern France and northern Italy. In doing so, I demonstrate that, like special note shapes in this period, mensuration signs are outward reflections of a cultural process which is preserved in the semiotic process of mensural notation.

5.1. Mensuration signs in French notational theory

The tradition, which was to affect the subsequent notational systems, due perhaps to the downfall of the Italian notational system no later than 1430, was the French system of mensural notation. As has been already discussed in the previous chapter, both the French and Italian systems of mensuration were centred around the thirteenth century concepts of perfection (divisibility by three) and imperfection (divisibility by two) as a way of defining the relationship between each successive *gradus* or step in the division of time. In French notational theory, the relationship of the *brevis* (•) to the *longa* (•) was referred to as *modus* (mode), of the *semibrevis* (•) to the *brevis* as *tempus*, and of the *minima* (•) to the *semibrevis* as *prolatio* (prolation). Through the implication that the subsequent divisions of *tempus* and *prolatio* would be identical in either perfect or imperfect mode, four principal mensurations of *tempus* and prolation were formulated. These are shown in Table 5.1.

							•			
tempus		***		•••			••		••	
prolation			••	••		.	•••	••	••	
Mensuration sign c. 1400.	· · · · · · · · · · · · · · · · · · ·			0			C		С	
Name of mensuration	tempus perfectum prolatinis maioris		Tem <u>p</u> prola	Tempus perfectum prolatinis minoris		Tempus impefectum prolationis maioris		Ten imper prola min	npus fectum Itionis noris	
Abbreviation	[3,3]			[3,2]		[2,3]		[2,2]		

Table 5.1: The four principal mensurations of French musica mensurabilis.

As will be recalled from the previous chapter, the important coefficient of this system in French music was *minima* equivalence which results in two different durations for *semibreves* (that is a perfect *semibrevis* equal to three *minime* and an imperfect *semibrevis* equal to two *minime*) and three different durations for a *brevis* (each one equivalent to the duration of either 9, 6 or 4 *minime*).

Any assessment of development and theoretical codification of mensuration signs during the fourteenth century must take into account several factors. The first concerns the transmission of theory to the present day. Treatises on *musica mensurabilis* of the *ars nova* are often transmitted in sources copied a considerable time after they were conceivably written. Furthermore, a critical appraisal of a treatise's transmission with due attention to the possibility of scribal emendation or additions by glossators during a long period of use must be taken into account.

The theory of mensuration signs and the actual forms found in theoretical writings during the course of the fourteenth century varies. Johannes de Muris' earliest treatises on music, the *Notitia artis musicae* written in 1321 and the *Compendium musicae practicae* (*c.* 1322), which sets out the *gradus* system and refines concepts such as alteration and imperfection, makes no mention of mensuration signs. One is hesitant to turn to a set of treatises once subsumed within the so-called *Ars nova* of Philippe de Vitry and regard them as a single tradition. Recent scholarship has argued that this disparate set of sources cannot represent a single authorial intent.⁵ Rather, they appear to represent separate traditions that continued to be copied and/or modified throughout the fourteenth century. A further problem stemming from the surviving transmissions of this group of sources is that the earliest extant transmission must be from the late fourteenth century.

The treatise in the manuscript Rome, Biblioteca Apostolica Vaticana, Barbarini lat. 307 (ff. 17r-20v) forms the basis of Gilbert Reaney's edition, which he entitled *Ars nova*. It represents the earliest traditions with tangible links to the early *ars nova* style. Here, two types of signs are given: 1) the signs for perfect and imperfect mode consisting of a rectangle containing three or two horizontal lines respectively (\blacksquare) and which are described verbally and graphically, and 2) the signs for perfect mode and *tempus* and imperfect mode and *tempus* which are described as O containing three lines and C containing two lines respectively, although the example found in this source uses dots in the place of lines.⁶ Another late fourteenth century source Paris, Bibliothèque Nationale, fonds lat. 14741 (*olim* St. Victor 680) (=F-Pn 14741) contains several readings close to the Vatican treatise. In this transmission, which was also employed by Reaney in his edition, the figures are

⁶ Rome, Biblioteca Apostolica Vaticana, Barbarini lat. 307, f. 20r as found in John Gray, Oliver B. Ellsworth and Michael W. Lundell (eds), 'Ars nova (Rome, Biblioteca Apostolica Vaticana, Barberini lat. 307, ff. 17r-20v)', *Thesaurus Musicarum Latinarum*, no date (accessed 2nd Nov. 2000),

⁵ Sarah Fuller, 'A phantom treatise of the fourteenth century? The *ars nova*', *Journal of Musicology*, vol. 4, no. 1, 1985-86, pp. 23-50. One should also note Andrew Wathey's view that the ascription of several works on musical theory to Philippe de Vitry by northern Italian scribes may be due to the poet-composer's subsequent reputation among Italian Petrarchists and their students. *vid.* Andrew Wathey, 'The motets of Philippe de Vitry and the fourteenth-century renaissance', *Early Music History*, vol. 12, 1993, pp. 132-133.

<http://www.music.indiana.edu/tml/14th/VITANV_MBAVB307.html>. Cf. Reaney, Gilles and Maillard, (eds), Philippi de Vitriaco Ars Nova, p. 27, chap. XVIII, sent. 2-5.

drawn as O containing three parallel vertical lines and C containing two parallel horizontal lines. However, the treatise in F-Pn 14741 distinguishes itself from the Vatican treatise by the presence of a chapter (also included in Reaney's edition⁷) which describes mensuration signs used to indicate *tempus*. For perfect *tempus*, a circle O or three vertical strokes on a staff line are prescribed, while one uses a semicircle C or two vertical strokes in imperfect *tempus*.⁸ An important observation to be noted with regard to the musical examples furnished in the Paris manuscript, which uses either the circle or semicircle, is that prolation in both cases must be major despite the absence of any explicit indication to indicate this. From this, it might be suggested that *tempus* mensuration signs have no extrinsic relationship to prolation. Rather the intrinsic properties of note groups, rests and dots indicate this level of mensuration.

A further treatise connected to the *Ars nova* tradition by its previous editors was the *Omni desiderati notitiam* treatise transmitted in both manuscripts Seville, Biblioteca Capitola y Colombina, 5.2.25, ff. 63r-64v and Chicago, Newberry Library, MS 54.1, ff. 52v-56v. This is the same treatise that Coussemaker entitled in his edition the *Ars perfecta in musica Magistri Philippoti de Vitriaco*. However, the ascription to De Vitry occurs only in the Newberry manuscript. As Sarah Fuller states,⁹ this treatise represents a late stage in the development of French notation in the fourteenth century, and it shows greater affinity to the tradition of the *Libellus cantus mensurabilis*, the popular handbook on mensural notation usually ascribed to Johannes de Muris, than the traditions described in the previous paragraphs. The *Omni desiderati notitiam* from the last decade of the fourteenth century and found in what is now the Newberry manuscript, sees the use of *tempus*-prolation mensuration signs where *tempus* is denoted by a circle or semicircle and prolation by three or

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⁷ Reaney et al., op.cit., ch. XVI.

⁸ I have disregarded Reaney's emendation in Ch. XVI.6 of the MS reading *brevis* to *semibrevis*. The passage at hand is clearly describing the appropriate ternary division of perfect *tempus*. One further source connected to this *ars nova* "group" is Paris, Bibliothèque Nationale, fonds latin 7378A. In this source *tempus* mensuration signs are described thus: Ad temporis perfecti designationem anteponitur circulus rotundus, quia forma rotunda perfecta est, et aliquando tres tractuli, et utrumque est bonum, ut hic <exemplum deest>. Ad temporis inperfecti designationem inponitur semicirculus et aliquando duo tractuli
baculi Gilles, err.> et utrumque est bonum...(for indicating perfect time, a round circle is placed beforehand because the round form is perfect, and sometimes the little lines: either is acceptable, as here:...For the indication of imperfect time there is placed a semicircle and sometimes two little lines, and either is acceptable...), André Gilles, 'Un temoignage inedit de l'enseignement de Philippe de Vitry', in Philippi de Vitriaco Ars Nova, pp. 65-67.

⁹ Fuller, ' A phantom treatise of the fourteenth century?', p. 29.

two dots placed inside the *tempus* sign ($\mathfrak{D}, \mathfrak{D}, \mathfrak{D}, \mathfrak{D}, \mathfrak{D}$). As will be seen below, this transmission appears to represent a theoretical *status quo* in relation to mensuration signs.

As such, the evidence supplied by the Ars nova suite of treatises and the late dates of surviving manuscripts provides few clues as to the chronological order of the theoretical codification of mensuration signs. However, Jacobus de Liège,¹⁰ champion of the ars vetus, provides the most telling observations of his contemporaries' modern notational practices. The seventh book of his Speculum musicae was possibly written between June 1323 and 1324/25.11 Chapter XLVII, which commences with a comparison of the old and new musical notation in terms of which contains the greatest freedom,¹² lists several uses of mensuration signs in the new art reported to be current at that time. Several signs demonstrate affinities to the Ars nova Vatican treatise described above. The signs for tempus imperfectum are given as O or three lines, which debent tangere lineam et aliquis de spatio utriusque lineam lateris. This echoes the possibly earlier treatise¹³ entitled Compendium musicae mensurabilis tam veteris quam novae which states that perfect time may be indicated by either the circle or three strokes and imperfect time by a semicircle or two strokes.¹⁴ Similarly, the Speculum musice also mentions rectangular mode signs, containing two or three lines, which are also found in the Ars nova Vatican treatise. One also finds in the Speculum musicae the same modus-tempus signs in the form of circle/semicircle containing two or three strokes as those found in the Paris Ars nova source (Pn 14741). However, Jacobus also gives other irregular forms including two semicircles to denote imperfection (it is unclear whether this refers to tempus or modus), and M and N to indicate modus perfectus and imperfectus respectively. Jacobus reports the Moderns held the latter signs analogous to the use of O and

¹⁰ Recently, Karen Desmond in her 'New light on Jacobus, author of *Speculum musicae'*, *Plainsong and Medieval Music*, vol. 9, no. 1, 2000, pp. 19-40, has strengthened the hypothesis originally made by Oliver Ellsworth (*op.cit.*, pp. 9-10), that Jacobus de Liège might also be Jacobus de Montibus named in the fourth treatise of the Berkeley manuscript. Desmond details a Jacobus de Montibus who held a canonicate at St. Paul's of Liège, may have been a *magister scholorum*, and died between 1337 and 1343. Such dates accord well with the writing of the *Speculum musice*.

¹¹ Ulrich Michels, *Die Musiktraktate des Johannes de Muris*, Beihefte zum Archiv für Musikwissenschaft 8, Wiesbaden, 1970, pp. 50ff.

¹² Jacob employs a reversed analogy where the new art of notation and all its prescriptions is compared to the Old Testament (*lex veta*) and the old art of notation to the New Testament (*lex nova*) with its simplicity and freedom. Jacobus argues that mensuration signs are but another constraint on the new art.

¹³ Vid. Busse Berger, op.cit., p. 12.

¹⁴ Pro tempore perfecto denotando ponitur circulus rotundus vel tres tractuli; pro imperfecto vero ponuntur semicirculi ve duo tractatuli...; Gilbert Reaney, Compendium musicae mensurabilis tam veteris quam novae artis, in Corpus Scriptorum de Musicae 30, 1982, p. 40.

C. Jacobus also reports that the signs O and C are held by some Moderns to be significative of the perfection/imperfection of *modus* as well as *tempus*.

The collective testimony of Jacobus de Liège and the early *Ars nova* treatises suggests, from a theoretical perspective, that the earliest use of mensuration signs in the French *ars nova* was established by the third decade of the fourteenth century. These signs appear to signify *modus* and/or *tempus* only. Indeed, the term *prolatio* is used by Jacobus de Liège in his *Speculum musice* not as a term to denote the measurement of the *semibrevis*, but rather as a term related to the measurement of simultaneous vocal production.¹⁵ The development of the extrinsic signification of prolation would appear to be a subsequent development based on the O and C *tempus* mensuration signs.

Even at a later date, there are suggestions that the notion of *tempus* only mensuration signs persisted. The treatise *De semibrevibus caudatis*,¹⁶ once ascribed to Theodoricus de Campo, is clearly an anonymous work from the last quarter of the fourteenth century which describes, among other things, techniques associated with the *ars subtilior* style. These include special note forms such as the *dragma*, *syncopa* (using both the *punctus divisionis* and coloration), dotted *minime* and *sesquitercia* coloration of *minime*. However, in the chapter on mensuration signs, only the older O/C *tempus* signs are given.

The progress from *tempus* only to *tempus-prolatio* mensuration signs can be gauged from the perspective of the widely circulated¹⁷ Ars practica cantus mensurabilis secundum Iohannem de Muris¹⁸ (which I will continue to refer to as the Libellus¹⁹). Ulrich Michels dates this treatise to c. 1340.²⁰ The collective transmissions of this treatise on mensural music

¹⁵ F. Joseph Smith, Jacobi Leodiensis Speculum Musicae, A Commentary, Musicological Studies XLIII, Henryville, 1983, vol. 3, p. 19.

¹⁶ Critical Edition: Sweeney and Gilles, *op.cit*.

¹⁷ For a list and discussion of extant sources of the *Libellus vid*. Daniel S. Katz, "The Earliest Sources for the *Libellus cantus mensurabilis secundum Johannem de Muris*", Ph. D. thesis, Duke University, 1989, pp. 1-4, 9-23.

¹⁸ The most recent edition and assessment of the transmission of the *Libellus* is found in Berktold, *op.cit*. Berktold identifies two major *recensiones*, A and B, of the *Libellus* in addition to a *recensio minor* and several *recensiones variae* which have their basis in the *Libellus*. Based on surviving instances of transmission, *Recensiones majores* A and B are observed both north and south of the Alps, but especially in northern Italy. Evidence of the transmission of the *recensio minor* is to be found only in North-western Europe and England. Berktold notes Oliver Ellsworth's previous conclusions that the Berkeley treatises of c. 1375 are based in part on the *recensio minor*: *vid. ibid.*, pp. X-XXIX. On the earliest datable sources of the *Libellus*, *vid.* Katz, *op. cit*. pp. 43-210.

¹⁹ For the sake of convenience, I will continue to preserve herein the modern musicological phenomenon by referring to this treatise as the *Libellus <practice cantus mensurabilis secundum Johannem de Muris>*. On the title of this treatise, *vid*. Katz, *op. cit.*, p. 24, fn. 51.

²⁰ Ulrich Michels, *Die Musiktraktate des Johannes de Muris*, p. 28. Heinrich Besseler dated the *Libellus* between 1340-1350 in 'Johannes de Muris', in *Die Musik in Geschichte und Gegenwart*, 1st edn, ed. F. Blume, Kassel, vol. 7, 1958, col. 110.

suggest it either introduced or codified the use of two or three dots within the circular *tempus* signs. The view that the multiple dotted mensuration signs preceded the simpler form is suggested by the third treatise from the so-called Berkeley treatises. This treatise, which uses the *recensio minor* of the *Libellus* as its basis, details *modus*, *tempus* and *tempus*-prolation signs – the last as a combination of circular forms and two or three dots.²¹ The treatise, as found in the Berkeley manuscript, contains an explicit for 12th January, 1375. Although not contained in manuscripts from the same period, the *Ars cantus mensurabilis mensurata per modos iuros* is a tract on *musica mensurabilis* contemporaneous with the Berkeley treatise.²² It contains the same list of mensuration signs including tempus-prolation types.²³

After their introduction towards the middle of the fourteenth century, the four basic *tempus*-prolation signs (\circledast , \circledast , \circledast , \circledast) appear to have stabilised in French notational theory during the last quarter of the fourteenth century, although by at least the last decades of the fourteenth century theorists report a final change in their form. The earliest theoretical reference to the use of a single dot to indicate major prolation and its absence to indicate minor prolation occurs in the *Summa musice* of the Englishman Johannes Hanboys which dates from *circa* 1375.²⁴ Here O indicates that *breves* are perfect, \bigcirc that they are imperfect, while a single internal dot indicates "perfect" prolation, its absence "imperfect" prolation.²⁵ Peter Lefferts believes that the adaptation of the *gradus* system of Johannes de Muris and others to Robertus de Handlo's earlier system (in turn closely related to concepts found in early Italian theorists such as Marchettus de Padua) demonstrates that Hanboys only had knowledge of earlier fourteenth century notational developments on the continent. Yet, the presence of the *tempus*-prolation mensuration signs, as opposed to *modus-tempus* signs,

²¹ Ellsworth, *op.cit.*, pp. 170-71.

²² Balensuela, op.cit., pp. 82-87.

²³ Balensuela, op.cit., pp. 218-19.

²⁴ Peter M. Lefferts, (ed.), Robertus de Handlo Regule and Johannes Hanboys Summa, Greek and Latin Music Series, Lincoln and London, 1991, p. xi. A single dot to indicate major prolation, its absence minor prolation is also found in another English author referred to as Thomas Walsingham in his Regule Magister Thome Walsingham, found in London, British Library, Lansdowne 763, f. 101r as found in John Gray, Peter M. Lefferts and Michael W. Lundell (eds), 'Regule Magistri. Thome Walsingham. De figuris compositis. et non compositis. et de cantu perfecto et inperfecto. et De modis. incipiunt', Thesaurus Musicarum Latinarum, no date (accessed 12th December, 2000), <http://www.music.indiana.edu/tml/14th/WALREGU_MLBLL763.html>. Cf. Gilbert Reaney, ed., Johannes Hothby, Opera omnia de musica mensurabili; Thomas Walsingham, Regulae de musica mensurabili, Corpus scriptorum de musica 31, Neuhausen-Stuttgart 1983, p. 84. Andrew Hughes states that it is likely that this is the same person as the chronicler Thomas Walsingham (†1422) in Andrew Hughes, 'Walsingham, Thomas', in The New Grove Dictionary of Music and Musicians, 2nd edn, ed. S. Sadie, London, 2001, vol. 27, p. 51.

²⁵ Lefferts, Robertus de Handlo Regule and Johannes Hanboys Summa, p. 266.

demonstrates knowledge of developments in mid-century French notational theory. From a practical perspective, the system contained in the *Summa* concurs approximately with those found in England in the first half of the fourteenth century. However, as Lefferts states, this system was largely abandoned in favour of the French notational system by the time Hanboys wrote his treatise.²⁶ Hanboys' use of a single dot to indicate prolation (or, in his terms not uncommon in continental theory, perfection or imperfection of the *semibrevis*) suggests either that Hanboys may have innovated the single dot system or simply copied it from his continental colleagues.

One further apparent discrepancy in Hanboys' list of mensural signs is the use of a reversed C to indicate imperfect *tempus*. However, as will be seen below, there is evidence of this practice among musicians whose works demonstrate association with Avignon and northern Italy. Furthermore, in light of the easing in Anglo-French relations in the Peace of 1360-69, Andrew Wathey has uncovered evidence of musicians from the Languedoc region visiting and serving in the royal chapels of England.²⁷ Similarly, several English musicians travelled to the new English territories in Brittany from whence they could witness continental practices. This presents an opportunity for explaining Hanboys' awareness of contemporary continental practices. The evidence from this theorist therefore assumes a new significance whereby the argument of insular isolation is swept aside by a greater understanding of political and social relationships in this period.

On the continent, the Cn 54.1 transmission of the *Libellus* (ff. 43r-49v) from Pavia *c.* 1391 sees the use of just one internal dot to indicate major prolation.²⁸ In 1404, the Paduan theorist, Prosdocimus de Beldemandis complains that some contemporary musicians have reduced the number of dots to indicate prolation by two, so that one dot rather than three indicates major prolation and no dots rather than two for minor prolation.²⁹ Two and a half decades later, Ugolino d'Orvieto again censures the practice.³⁰ But, as suggested by the

²⁶ Lefferts, Robertus de Handlo Regule and Johannes Hanboys Summa, p. 64.

²⁷ Andrew Wathey, 'The Peace of 1360-69 and Anglo-French musical relations', *Early Music History*, vol. 9, 1989, pp. 129-174.

²⁸ Berktold, *op. cit.*, pp. 47-48 (critical apparatus to Chap. 6, sent. 2-4). Cn 54.1 contains one of the earliest datable transmissions of the *Libellus*. Yet, it witnesses a particular practice of mensuration signs not central to the *Libellus* tradition wherein most of the main sources preserve mensuration signs with multiple dots of prolation.

²⁹ Gallo, Prosdocimi de Beldemandi Opera 1: Expositiones, chap. LVI, sent 40.

³⁰ Albert Seay, (ed.), Vgolini de Vrbevetani Declaratio Musicae Disciplinae, Corpus Scriptorum de Musica 7, Rome, 1960, vol. 2, pp. 200-201.

Cn 54.1-transmission of the *Libellus*, the battle to maintain the older *tempus*-prolation signs was probably lost before Prosdocimus committed his thoughts to the page.

Concerning the reduction of the dots of prolation by two, it is possible that the cause of Prosdocimus' and Ugolino's protests lay not in a conservative agendum but in the philosophical and therefore theoretical bases of these signs. Despite Anna Maria Busse Berger's erudite attempt to link mensuration signs to Roman numerals and the abacus, I am inclined to agree with Stanley Boorman's assessment that the use of the circle and semicircle may have more to do with the concept of unitary perfection.³¹ The analogy of the circle to perfection resonates through the *musica mensurabilis* treatises.³² With regard to the use of three dots to indicate prolation, theorists are quite clear that the analogy of perfection resides in the doctrine of the Holy Trinity, perhaps wedded to Pythagorean rationality whereby the number three was considered a perfect, indivisible form, while the numeral two was imperfect by its unitary removal from a state of perfection. On the other hand, Euclidean geometry holds that the point is indivisible, without magnitude or quantity, and therefore perfect in its absence of imperfectible parts. It is perhaps this shift from a theological basis to a mathematical, increasingly secular viewpoint that troubled early fifteenth century theorists.

5.2. The signa divisionis in Italian notation and theory

Before proceeding to a discussion of the early use of mensuration signs in French notation, an overview of the use of *signa divisionis* or mensuration signs in Italian notation and theory is appropriate. Italian theory and notation developed from the innovations of the early *ars nova* notation (such as found in the Roman de Fauvel, discussed in Chapter 1) by extending the late *ars antiqua* practice of notating more that three *semibreves* to a *brevis*. Instead of only four basic divisions of the *brevis* as in French notation, Italian notation permitted up to ten divisions based on three successive levels of division by either two or three, although the tenth division (3x3x3) was purely theoretical. The realisation of strings of *semibreves* was determined by the governing division and the presence of a *pontellus* (=p.d.) separating *semibreves* into groups. The last device was inherited from the *ars antiqua*.

³¹ Stanley Boorman, 'Review: Anna Maria Busse Berger, Mensuration and Proportion Signs...', Plainsong and Medieval Music, vol. 9, no. 1, 2000, p. 68.

³² Prosdocimus de Beldemandis writes concerning modus and tempus sign (stroke and circle forms): ...quod hoc fuit pro tanto, quoniam cum perfectio consistat in numerio ternario et imperfectio in binario...("...but this was as such since in the ternary number there resides perfection and, in the binary <number>, imperfection..."), Gallo, Prosdocimi de Beldemandi Opera 1: Expositiones, chap. LVI, sent 39.

realisation of the rhythmic duration within these metric units was determined in its earliest stage by the understood "natural" conventions (*via nature*) which were modified (*via artis*) by the addition of tails above (sometimes flagged to form a *semiminima*), below or to the side of a *semibrevis*.³³

The first division involved either the perfect (into three equal parts) or imperfect division (into two equal parts) of the *brevis*. The second division permitted the perfect or imperfect division of those parts created in the first division. The third division extended this process to the next level. This relationship is demonstrated by Table 5.2.

	Perfect	tempus	Imperfect tempus			
	2	3	2	3		
1 st division	Terna ♦◀	ria (3) ♦♦	Binaria (2) ♦♦			
2 nd division	Senaria perfectum or ytalicum (3x2) ♦♦ ♦♦ ♦♦	Novenaria (3x3)	Quaternaria (2x2) ♦♦ ♦♦	Senaria imperfecta or gallica (2x3)		
3 rd division	Duodenaria (3x2x2)	(3x3x3)	Octonaria (2x2x2)	Duodenaria (2x2x3)		

Table 5.2: The divisions of *tempus* in early Italian *trecento* mensural music theory.³⁴

Theoretical writings on early *trecento* mensural notation suggest that the imperfect *brevis* was temporally distinct from the perfect *brevis*.³⁵ This implies a situation where all *breves* in *divisiones* with perfect *tempus* are, in terms of their duration, equivalent, as are all

³³ Vecchi, op.cit., pp. 103ff. Q.v. Apel, Notation of Polyphonic Music, pp. 368-384.

³⁴ Adapted from Vecchi, *op.cit.*, p. 181.

³⁵ Remanet ergo quod tempus imperfectum de se et essentialiter solum duas partes in quantitate perfecti temporis comprehendat ("It follows therefore that imperfect time alone and essentially includes only two parts in the size of perfect time"), Vecchi, op.cit., p. 161; Per subtractionem autem factam ab intellectu, de parte scilicet temporis perfecti, musica fit scientia de tempore imperfecto ("By the subtraction, however, made by the intellect of part of namely perfect time, there is knowledge of music in imperfect time"), *ibid.*, p. 163. Guido frater writes: Tempus enim inperfectum deficit a perfecto ad minus in tertia parte sui, et dividitur primaria divisione in duas semibrevis equales que in valore equivalent duabus de tribus primarie divisionis perfecti temporis...("For imperfect time changes from perfect <time> to the lesser <time> in its third part, and it is divided in the primary division into two equal semibreves which are equivalent in value to two of the three <semibrevis> of perfect time..."); Gallo, Mensurabilis Musicae Tractatuli, p. 35.

breves in imperfect tempus. As a result of this equivalence, a sesquitercia relationship existed at the level of the semibrevis minima between novenaria and duodenaria, and senaria imperfecta and octonaria.³⁶ However, in the second half of the fourteenth century, and as a result of the introduction of the French concept of mutatio qualitatis, there occurs equivalence of minime between the .sp. and .si.³⁷ As will be discussed below, this system of relationships is further complicated in this period by the rewriting of duodenaria and octonaria with multiples of substitute quaternaria.

Although it appears that the initial system of divisions in Italian notation was well developed before Marchettus de Padua codified it in his *Pomerium musice, circa* 1318, he is the first surviving theorist to mention the *signa divisionis*. Marchettus states that in compositions that change their mensuration, the composer should make his intentions clear by providing a sign indicating the new division of time.³⁸ Marchettus advocates the following signs, which are effectively abbreviations of theoretical nomenclature:³⁹

.p. = tempus perfectum	or	.t. = divisio ternaria
.i. = tempus imperfectum	or	.b. = divisio b inaria

In a chapter describing the differences between the Italian and French notational systems and their realisation, Marchettus mentions the use of signs to indicate the French (*gallicum*) or Italian (*ytalicum*) division of *tempus imperfectum*. The French division was into two groups of three, the Italian into two groups of two. Where there is an alternation of both types of division, Marchettus suggests that the signs .G. (=French division) or .Y. (=Italian division) be placed above (rather than beside) the sign for *tempus imperfectum*. When a song is notated entirely in either imperfect division, only .G. or .Y. should be written at its beginning.⁴⁰ These signs, however, are never used in practice, but are replaced by the .q. = *quaternaria* and .si. = *senaria imperfecta* (or .sg. *senaria gallica*) signs.

Marchettus' reported system of signs, however, does not go beyond the second division of time in the Italian notational system. This lacuna seems to have been filled by 1330-40 when the anonymous author of *De diversis maneriebus in musica mensurabili* includes

³⁶ Marco Gozzi, 'La cosiddetta Longanotation: Nouve prospettive sulla notazionale italiane del Trecento', *Musica Disciplina*, vol. 49, 1995, p. 141.

³⁷ Long, "Musical Tastes in Fourteenth-Century Italy", pp. 60-61.

³⁸ Vecchi, *op.cit.*, p. 164.

³⁹ Vecchi, *loc.cit*.

⁴⁰ Vecchi, *op.cit.*, pp. 179-180.

the following signs to indicate more precisely two of the second division and two of the third division of time:⁴¹

.s. = senaria maneries (sive divisio)
.n. = novenaria maneries (sive divisio)
.o. = octonaria maneries (sive divisio)
.d. = duodenaria maneries (sive divisio)

The complete development of this system of abbreviations is found in the *Tractatus practice* cantus mensurabilis ad modum ytalicorum by Prosdocimus de Beldemandis. This treatise was written at the very end of period that witnessed the practice of Italian notation, and in many respects parallels Jacobus de Liège's *Speculum musice* through its appeal to philosophic argument to protect a dying tradition. Prosdocimus distinguishes between two types of tempus signs: signa generalia and signa magis specialia. The general signs are the same as those given by Marchettus (.t., .b., .p., .i.). The more specialised signs are:

- Q = tempus quaternarium
- SP = tempus senarium perfectum
- SI = tempus senarium imperfectum
- O = tempus octenarium
- N = tempus novenarium
- D = tempus duodenarium

A comprehensive investigation of the use of mensuration sign throughout the surviving repertoire of works notated in the Italian manner is beyond the scope of this present investigation. However, some observations can be made. The earliest surviving source in Italian notation is the Codex Rossi, which may have been copied as late as 1370 in northern Italy.⁴² Although I will not attempt to emulate Nino Pirrotta's magisterial assessment of Codex Rossi's notation,⁴³ it can be stated that *signa divisionis* occur with great regularity in this manuscript. Each sign largely agrees with those found in the Italian theoretical literature, although the meaning of .m. in conjunction with .q. and .o. is unknown. Pirrotta suggests that .m. may be an abbreviation for *maior*, indicating a slower

⁴¹ F. Alberto Gallo, La teoria della notazione in Italia dalla fine del XIII all'inizio del XV secolo, Bologna, 1966, p. 56.

⁴² Rome, Biblioteca Apostolica Vaticana Rossiano 215 & Ostiglia, Fondazione Opera Pia don Guiseppe Greggiati, fragmenti. Published in colour facsimile as Nino Pirrotta, (ed.), *Il codice Rossi 215*, Ars nova 2, Lucca, 1992.

⁴³ Pirrotta, *Il codice Rossi 215*, pp. 108-111. *Q.v.* Nino Pirrotta, 'A Sommacampagna Codex of the Italian Ars Nova', in *Isham Library Papers*, ed. G. M. Boone, Cambridge (Massachusetts), 1995, pp. 319-20.

tempo of the *quaternaria* and *octonaria* divisions. The two divisions of the *senaria* are indicated by .sg. (=*senaria gallica*, 2x3) and .sy. (=*senaria ytalica*, 3x2). In almost all cases, the mensuration of the work is shown at its beginning with the *signum divisionis* drawn in red ink. However, as Pirrotta notes, the scribe's attention occasionally wanders and sections, which an Italian medieval musician might intuit to be in a different division of time, are not always indicated by *signa divisionis*.⁴⁴ This manuscript is also unique in its use of .t. to indicate the *ternaria* division, which occurs nowhere else in the repertoire.⁴⁵ *Pontelli* frame each *brevis* measure and the p.a. never occurs.

The regularity of *signa divisionis* found in Codex Rossi is not repeated in most other sources written in Italian notation. This fact may have resulted from the efforts of scribes to reform traditional Italian notation as the fourteenth century progresses. While there are indications that French mensural concepts were gradually assimilated into theory,⁴⁶ it is possible that some changes were motivated at an earlier stage by purely native aspirations. A most significant change occurs in the (re-)notation of the *octonaria* and *duodenaria* divisions into multiples of substitute *quaternaria*.⁴⁷ French influences, however, also resulted in the writing out of *via nature* rhythms, the elimination of Italian special note shapes by the *punctus additionis* and the elimination of the increasing superfluous *pontellus*.⁴⁸ However, because the Italian *divisiones* were redefined in terms of French mensural theory (that is the

⁴⁸ Eugene Fellin, 'The notation-types of trecento music', in *L'Ars nova italiana del trecento* IV, ed. A. Ziino, Certaldo, 1979, pp. 211-23. Fellin proposes that between Italian notation and French notation, two other types of Franco-Italian notation occur: the first predominantly characterised by the use of substitute

⁴⁴ Pirrotta, Il codice Rossi 215, p. 108.

⁴⁵ Pirrotta, *Il codice Rossi 215*, p. 109.

⁴⁶ Gallo, La teoria della notazione in Italia.

⁴⁷ The subject of notational development in *trecento* sources has for several decades been a source of much debate. I follow the recent argument of Gozzi in 'La cosiddetta Longanotation', who argues that the (re-) notation of octonaria and duodenaria divisions shows a greater concern to semibrevis and brevis division of time rather than modus, which Kurt von Fischer maintained was a fundamental aspect of this form of notation when he entitled it Longanotation in his Studien zur italienischen Musik des Trecento und frühen Quattrocento, pp. 111-113. But perhaps the most difficult aspect of von Fischer's treatment revolves around the conclusion: "Brevisnotation ist italiensich, Longanotation französisch" (ibid, p. 112). Gozzi's argument is largely prompted by Long's exploration of these phenomena in "Musical Tastes in Fourteenth-Century Italy", pp. 68-87. Here, Long argues that, as particularly evident by the preservation of the natural sesquitercia proportion of .o. and .d. relative to .si. and .n., that a conceptual difference existed between French modus- and Italian longanotation. As such, this invalidates von Fischer's generalisation. Theoretical treatments of the substitute quaternaria are discussed in F. Alberto Gallo, La teoria della notazione in Italia, pp. 84-85 & idem, 'Die Notationlehre in 14. und 15. Jahrhundert', pp. 326, 329ff. Prosdocimus de Beldemandis provides the keenest insight into this practice, albeit from the second decade of the fifteenth century, in his condemnation of substitute quaternaria in his Tractatus practice cantus mensurabilis ad modum ytalicorum, in Coussemaker, op.cit., vol. 3, p. 235, translated Jay A. Huff, (ed.), Prosdocimus de Beldemandis: A Treatise on the Practice of Mensural Music in the Italian Manner, Musicological Studies and Documents 29, s.l., 1972, 27-28.

four prolations),⁴⁹ the analogical *signa divisionis* frequently remained in use, even when all other elements of Italian notation had succumbed to French devices.

John Nádas has proposed⁵⁰ that variation in notational practices can be shown at the scribal level, perhaps on the basis of a scribe's training and background. In a large collection of the *trecento* repertoire, Fn 26, Nádas demonstrates that Scribe B often preserves older traits of the Italian notational systems including *signa divisionis* and *pontelli*, while Scribes C and A appear to be transforming their Italian exemplars by introducing elements from French notation, using *signa divisionis* only when absolutely necessary (as in the French system), avoiding the *semibrevis maior* (\blacklozenge) and avoiding the *pontellus* in favour of the *p.a*. Such is the case in multiple transmissions of works from the *trecento* repertoire that appear in two or more notational systems.

Even *signa divisionis* succumbed to the influence of French elements and French mensuration signs were introduced by scribes into works of a decidedly Italian origin. Several works by Italian composers in the last gathering (the fourteenth) of Pn 568 bear witness to this. Two settings from the ordinary, a *Gloria* (ff. 131v-133r)⁵¹ by Ser Gherardello da Firenze and a *Sanctus* (136v-137r)⁵² by Ser Lorenzo (Masini) da Firenze are also found in Rome, Biblioteca Apostolica Vaticana, Urb. Lat. 1419, (Rvat 1419) ff. 88v-90r and 90v-91r respectively.

The composers Gherardello and Lorenzo da Firenze appear to have been active in the middle of the fourteenth century and precede the generation of Florentine composers that included Francesco Landini.⁵³ However, it is likely that Pn 568 was compiled no earlier than 1406.⁵⁴ According to Nádas, its origins are suggested by its initial emphasis on

quaternaria; the second a simple note for note substitution of French for Italian note values. Both groups still use the signa divisionis.

⁴⁹ Gallo, La teoria della notazione in Italia, pp. 80-84.

⁵⁰ Nádas, 'The structure of MS Panciatichi 26 and the transmission of Trecento polyphony', pp. 414-419.

⁵¹ Transnotation (based upon both sources) in von Fischer and Gallo, *Italian Sacred Music*, pp. 5-8.

⁵² Transnotation in von Fischer and Gallo, *Italian Sacred Music*, pp. 73-75.

⁵³ Documentation suggests Gherardello's presence in Florence from 1343 until his death in 1362 or 1363, vid. Frank D'Accone, 'Music and musicians at the Florentine monastery of Santa Trinita', Quadrivium, vol. 12, 1971, pp. 142-150, and Blake Wilson, Music and Merchants: The Laudesi Companies of Republican Florence, Oxford, 1992, p. 163. Lorenzo Masini is documented in the archives of the church of San Lorenzo in Florence from 1348 to his death in 1373, vid. F. Alberto Gallo, 'Lorenzo Masini e Francesco degli Organi in S. Lorenzo', Studi Musicali, vol. 4, 1975, pp. 57-63. For a recent view on the relationship between Masini and Landini, vid. Pirrotta, 'On Landini and Ser Lorenzo', pp. 5-13.

⁵⁴ Gilbert Reaney, 'The Manuscript Paris, Bibliotheque nationale, fonds italien 568 (Pit)', *Musica Disciplina*, vol. 14, 1960, p. 34. Gatherings 6 and 8 are slightly later additions to Pn 568 by Scribe D (Nádas) whose privileged role in the transmission of Paolo Tenorista's repertoire is witnessed by the several

the limited contemporary Florentine repertoire of particularly Paolo Tenorista and Francesco Landini. There is some interest in other Florentine composers, but the number of works represented is small in relation to other anthologies of the *trecento* repertoire. A French repertoire and some contemporary works outside that city were also included.⁵⁵ It is also likely, especially considering the cursive *bastarda* script, that Rvat 1419 also dates from the early fifteenth century,⁵⁶ although no precise date can be ascertained from this aspect alone. While it is possible that both transmissions represented therein are modifications of the original notation, Rvat 1419, although undoubtedly a copy, contains a form of notation whose existence may plausibly date back to mid-century notational developments.⁵⁷

Gherardello's two-voice *Gloria* is transmitted in Pn 568 in a notation heavily influenced by French elements. The first section commences with both a *modus* and *tempus* sign ($\supset \blacksquare$) which appears to indicate perfect *modus* and imperfect, perhaps diminished, *tempus*. Both voices at the beginning of the *Qui tollis* are marked with Θ indicating *tempus perfectum minoris*, the *Cum sancto spiritu* with \otimes indicating *tempus perfectum maioris*, and the *Amen* with Θ once again.⁵⁸ The flagged *semiminima* ($\stackrel{f}{\bullet}$) is used while the reverse flagged form ($\stackrel{f}{\bullet}$) indicates a 3:2 relationship to the *minima*. The *punctus additionis* appears regularly (see especially the *Gratias agimus tibi*), the *punctus divisionis* only occurring when absolutely necessary for the delimitation of mensural time units. The assimilation of French techniques is complete in this transmission.

The transmission of Gherardello's *Gloria* in Rvat 1419 presents a very different set of notational principles. French mensuration signs are entirely absent, but one Italian *signum divisionis* is found in both voices at the beginning of the *Qui tollis*: .p. indicating the

unique works in these gatherings and by his role in copying Tenorista works into the Lowinsky Fragment and Las 184, ff. XCIXv-Cv, *vid.* Pirrotta, *Paolo Tenorista in a New Fragment of the Italian Ars Nova*, p. 18. Ursula Günther provides a *terminus post quem* of 1406-08 for the copying of these gatherings in Günther, 'Zur Datierung des Madrigals 'Godi Firenze' und de Handschrift Paris, B.N. fonds it. 568 (Pit)', pp. 99-119. However, Gherardello's and Lorenzo's polyphonic settings are part of the old corpus' second layer of copying by Scribe B, *vid.* Nádas, "The Transmission of Trecento Secular Polyphony", pp. 216-316.

⁵⁵ Nádas, "The Transmission of Trecento Secular Polyphony", p. 288.

⁵⁶ Cf. von Fischer and Lütolf, Handschriften mit Mehrstimmiger Musik des 14., 15., und 16. Jahrhunderts, pp. 1030-1032

⁵⁷ As Nino Pirrotta observed, the practice of notating *octonaria* and *duodenaria* division by a substitute *quaternaria* division is typical of a middle Florentine school of 1350-1365, in his *The Music of Fourteenth Century Italy*, vol. 3, pp. iv. As Long in "Musical Tastes in Fourteenth-Century Italy", p. 80, argues, the existence of a modified *quaternaria* (as a replacement for *duodenaria*) is evident in Codex Rossi, thereby extending the practice further into the past than Pirrotta had supposed.

⁵⁸ The *tempus-prolatio* signs with two or three internal dots on 131v-137v of Pn 568 represent a rare appearance of these signs outside theoretical writings.

division of the *brevis* of 3x2. The *pontellus* is used more frequently than in Pn 568 and the reversed-flagged *semiminima* also occurs, although there is rhythmic variation over the text "hominibus" in the Roman source as shown by Figure 5.1.





The reverse is the case in the T of the *Qui tollis* section of this *Gloria*, where the *pontellus* occurs frequently in Rvat 1419, while Pn 568 relies instead on the significance of the mensural sign and ligature groupings as shown in Figure 5.2.

Figure 5.2: Notation of T of Gherardello de Firenze's Qui tollis in Pn 568 and Rvat 1419.



In the critical notes to their transnotation of Gherardello's *Gloria*, Kurt von Fischer and F. Alberto Gallo state that, in both cases (Rvat 1419 and Pn 568), the first section of the *Gloria* may have been an adaptation of the original *duodenaria* division using a substitute *quaternaria*.⁵⁹ However, the record left by the scribe of Pn 568 demonstrates a sensitivity in transferring the concepts of sesquitercia relationships of *duodenaria* (or perhaps the *quaternaria*) in relation to the *novenaria* (\circledast), and perhaps the *senaria perfecta* (\circledast) if a *minima* equivalence with *senaria imperfecta* can be said to exist, into terms expressed by French mensuration signs. The reversed C sign therefore has a proportional significance found in most of the *ars subtilior* repertoire to be discussed below.

In the Pn 568 transmission of Lorenzo da Firenze's *Sanctus*, one finds the mensuration signs O (at beginning of *Benedictus*), O (towards end of *Benedictus*) and O (beginning of *Osanna*). Neither mensuration signs nor *signa divisionis* appear in the Rvat 1419 transmission. Observations concerning the use of other notational elements made

⁵⁹ von Fischer and Gallo, *Italian Sacred Music*, p. 192. Fischer and Gallo's language is couched in terms of *modus*-notation.

above with respect to Gherardello's *Gloria* also apply, although the *semiminima* (\checkmark) and the *sesquialtera minima* (\checkmark) are now correctly differentiated in Rvat 1419. A telling confirmation of the scribe's concern for the re-notation into French style occurs in the last part of the *Benedictus* in Pn 568. As shown in Figure 5.3, the scribe of Pn 568 appears to have re-notated the passage through the use of coloration coupled with a mensuration sign.⁶⁰

Figure 5.3: Conclusion of Benedictus by Lorenzo da Firenze in Pn 568 and Rvat 1419 (S only).



Although it is uncertain whether the change to the *octonaria* division could have been inferred by a reader of Rvat 1419 (with the possibility of the scribal omission of the sign), the notation of the scribe of Pn 568 demonstrates his desire to convey an understood proportional relationship (*sesquitercia*), which undoubtedly existed in his exemplar as *octonaria* or *quaternaria dupla* in the S against *senaria imperfecta* in the T. It is possible that the scribe had a limited understanding of full red/void red *sesquitercia* notation practice in the music of the *ars subtilior* since *c*. 1380 and sought to emulate this device by writing void black *minime* governed by *tempus imperfectum*.

Nonetheless, Scribe B's use of French mensuration signs – even if some appear archaic in their use of multiple dots of prolation – coupled with other notational devices (such as coloration) demonstrates an ingenious adaptation of French concepts at the beginning of the fifteenth century to mid-fourteenth century Italian musical process. This is especially evident when the scribe is faced with the challenge of re-notating Italian sesquitercial relationships at the *minima* level into a form of French notation. The lengths to which the scribe of Pn 568 goes to re-notate these works,⁶¹ when such simple solutions existed in the Italian system, may indicate the level of his enculturation by French

⁶⁰ Johannes Wolf believed the void note forms in Lorenzo's *Benedictus* to be an example of the diverse manner of writing *semiminime*, in *Geschichte der Mensural-Notation*, vol. 1, p. 305. However, a closer analogy between full red *sesquitercia* notation in the early *ars subtilior* and these void forms appears more likely since Scribe B always uses the conventional form of the *semiminima* ($\stackrel{\frown}{\bullet}$) in the earlier sections of this work and other works which he copies, including Gherardello's *Gloria* described above.

⁶¹ Nádas, "The Transmission of Trecento Secular Polyphony", p. 323 notes that the scribe of these two works (among others) in the last fascicle, which he calls Scribe B, also modernises the secular repertoire which he copied into the earlier gatherings of Pn 568 by eliminating *semibreves caudate* and *puncti divisionis*. He also rewrites one-pitch ligatures as a single, larger note. It is notable that in Gherardello's *Intrando ad abitar* (ff.

notational practices. It is also possibly indicative of a cultural position evident in late *trecento* Florence whereby French composers (such as Guillelmus da Francia) and proponents of French techniques (such as Landini and Paolo Tenorista) played a role in promoting certain notational styles in circles which possibly included the scribes of Pn 568.

5.3. The early practical application of mensuration signs in French notation

At the beginning of this chapter, I suggested that the picture of theoretical exposition was more complex than indicated by most scholars of music theory of the fourteenth century. This assessment stems from the premise that theoretical tracts, which are often used today as proof of the existence of certain practices at the time of their writing, may in fact be accumulations of scribal additions and modifications reflective of a desire to contemporise and extend established traditions and authorities. In turning to the use of mensuration signs in the notation of musical sources, I will also adopt a similar critical approach in my assessment of their historical development.

The earliest surviving example of a *tempus* sign, as identified by F. Alberto Gallo,⁶² occurs in the musical additions to the Roman de Fauvel (Pn 146, f. 4r & ff. 10v-11r) where two strokes resembling *semibreves pause* indicate that the *tempus* should be read as imperfect in these works. However, in Pn 146, these signs appear to be the exception rather than the rule. Clearly, the practice resembles the previously-mentioned device codified early in *ars nova* theory. The compilation of the Pn 146 edition of the Roman de Fauvel between 1316-18⁶³ suggests that this device is perhaps the earliest mensuration sign subsequently codified by musical theorists.

In light of the currently received and apparently sound position that the contents of extant musical sources represent only part of the total (notated) musical repertoire of the fourteenth century, it is difficult to categorically determine the practical use of mensural signs in musical notation before c. 1400. It appears to have been an accepted fact among both scribes and theorists that it was not necessary to indicate the mensuration of a notated work even well into the early years of the fifteenth century when the use of signs is more

²⁷v-28r) Scribe B mixes signa divisionis with French mensuration signs (\odot and p.). The use of .n. in the place of \odot in the Fl 87 version of this work is discussed in Wolf, Geschichte der Mensural-Notation, p. 320.

⁶² Gallo, 'Die Notationslehre in 14. und 15. Jahrhundert', p. 287.

⁶³ Roesner et al., Le Roman de Fauvel in the edition of Mesire Chaillou de Pestain, p. 49.

frequently observed in surviving sources from that period.⁶⁴ Ob 213 is representative of this late stage where mensuration signs are frequent but not universal. This manuscript was compiled in the 1420s and 1430s. Even in this period, it appears that mensuration was only extrinsically signified when absolutely necessary. The situation appears changed significantly by the 1440-1450s when one observes the almost universal use of mensuration signs at the beginning of each voice in a notated work.

Returning to the fourteenth century, the extant transmissions of the music of Guillaume de Machaut demonstrate with reasonable certainty that he never used mensuration signs in his works, even in the single case where a change of mensuration was required in his Rondeau 10, *Rose, liz, printemps*.⁶⁵ Mensuration signs do appear in two works by Machaut in the Machaut MS E.⁶⁶ However, the signs would appear to be later scribal additions to this source which itself was compiled well after the composer's death. Machaut E belonged to the Duke of Berry and appears to have been compiled *circa* 1390 from a tradition slightly outside that of the several earlier manuscripts, which Machaut himself appears to have had a significant role in organising and supervising.⁶⁷ In one work, *Biaute qui toutes autres*, the alternation of O and C in the T anticipates the use of mensuration signs in the process of substitute coloration as described in the previous chapter. In all other sources of the former work, passages affected by the *tempus imperfectum* sign in Machaut E are written instead in full red or void coloration.⁶⁸

⁶⁴ At the end of his gloss on Johannes de Muris' *Libellus*, Prosdocimus de Beldemandis provides an *annexum* detailing guidelines for the 'recognition of the mensuration of songs' (*cognoscendi mensuras cantuum*). These deal mostly with *puncti* and coloration but also recommend trial and error by singing the work through and observing the resulting counterpoint, *vid*. Gallo, *Prosdocimi de Beldemandi Opera 1: Expositiones*, annexum, sent. 1-17.

⁶⁵ Richard Hoppin, 'Notational licenses of Guillaume de Machaut', *Musica Disciplina*, vol. 14, 1960, pp. 20-23.

⁶⁶ Paris, Bibliothèque Nationale, fonds fr. 9221. There is a tempus perfectum (prolationis minoris) sign at the beginning of fol. 150r, De triste cuer faire joyeusement - Quant vrais amans aimme amoureusement - Certes, je di et s'en quier jugement, there is an exchange of O and C signs in the T of the ballade Biaute qui toutes autre pere envers moy, f. 152v. A facsimile of the latter occurs in Apel, Notation of Polyphonic Music, p. 359. Other surviving musical sources of this work include London: New York: Wildenstein Collection, fol. 298 (2/2) (Vogüe MS); Bibliothèque Nationale, fonds français 1584 (= Machaut A), fol. 455v; Bibliothèque Nationale, fonds français 1585 (= Machaut B), fol. 296r; Bibliothèque Nationale, fonds français 1586 (= Machaut C), fol. 22546 (=Machaut G), Utrecht, 159r; Bibliothèque Nationale, fonds français fol. 135r; Universiteitsbibliotheek 1846 (shelfmark 6 E 37), fol. 29r.

⁶⁷ Bent, 'The Machaut Manuscripts Vg, B and E', pp. 61, 73; Earp, 'Machaut's role in the production of manuscripts of his works', pp. 461-503.

⁶⁸ Apel, Notation of Polyphonic Music, p. 356.

Another surviving example using mensuration signs before 1400 occurs in the Codex Ivrea, a so-called French source "made in Italy".⁶⁹ In this source (ff. 23v-24r), the motet *Douce playsance/Garison selon nature/Neuma quinti toni*, which is possibly by Philippe de Vitry, employs the signs O and C in regular alternation in all voices, although the signs are redundant in the *T* as coloration is also used in passages in *tempus imperfectum*. Theoretical writings from the fourteenth century cite this motet as an example of both the use of different *tempora* in a single work and the use of coloration in a *T*. However, the fourteenth century theoretical tradition concerning the use of *tempora* in *Douce playsance* is bipartite in that one tradition cites it merely as an example of the use of different *tempora* (through coloration) in a single work without explicit reference to mensuration signs.⁷⁰ while another tradition discusses this motet in relation to the use of mensuration signs.⁷¹ It is possible that mensuration signs were not required in the upper voices as it could be inferred from the T.

However, a curious observation arises from the consideration of prolation in *Douce playsance*, which is, in fact, always major. The signs in Codex Ivrea lack internal dots (three or one) of any kind. That the signs in this instance refer only to *tempora* recalls the somewhat earlier mensuration sign theory wherein signs indicate *tempus* only and prolation was determined through the intrinsic signification of note forms and groupings. The difficulty with this proposition lies not with its reality but with the uncertainty that is encountered if we considered the geographical currency of Codex Ivrea and theoretical tracts. However, as will be detailed below, evidence of similar usage in late works suggests that *tempus*-prolation signs were not universally accepted signs of mensuration even in the late fourteenth century.

⁶⁹ For a comprehensive study of manuscript Ivrea, Biblioteca capitolare 115 (RISM I-IV 115) see Karl Kügle, *The Manuscript Ivrea, Biblioteca Capitolare 115: Studies in the Transmission and Composition of Ars Nova Polyphony*, Ottawa, 1997; also Karl Kügle, 'Codex Ivrea, Bibl. cap. 115: A French Source 'made in Italy', *Revista de Musicología*, vol. 13, 1990, pp. 527-61; Andrew Tomasello, 'Scribal design in the compilation of Ivrea MS 115', *Musica Disciplina*, vol. 42, 1988, pp. 73-100. Kügle argues that the main corpus of Codex Ivrea, which includes *Douce playsance*, was copied by two associated Savoyard clerics at Ivrea (in the Piedmont Region at entrance to the Valle d'Aosta) in the 1380s and 1390s (Kügle, *The Manuscript Ivrea*, p. 75).

⁷⁰ Rome, Biblioteca Apostolica Vaticana, Barberini lat. 307, f. 20r. Reaney et al, Philippi de Vitriaco Ars Nova, p. 27, 29; cf. q.v Anonymous, Ars mensurandi motetos in ibid., p. 69.

⁷¹ Paris, Bibliothèque Nationale, lat. 14741, f. 4r & 5r; *cf.* Rome, Biblioteca Apostolica Vaticana, Barbarini lat. 307, f. 24r.

5.4. The use of tempus mensuration signs in works in the ars subtilior style

The ars subtilior sees the proliferation of mensuration signs in musical notation stemming from the style's concern for polymensuralism and proportionality. Notational process in this style was now firmly based in the French system. The Latin-texted ballade *Inclite flos orti gebenensis* by Mayhuet de Joan occurs in CH 564 (f. 41r) and MOe5.24 (f. 15r). The version in MOe5.24 is transmitted in full black notation throughout, employing only simple note forms and orthodox ligatures. The Ct is notated in the mensuration [3,2] throughout which is indicated by the sign \bigcirc at its beginning. The signs \bigcirc , \bigcirc , and \bigcirc all occur in the S while \bigcirc , \bigcirc , \bigcirc , and \bigcirc are found in the T. All signs are conventional in their meaning (*vid.* Table 5.1 above). There is *minima* equivalence between all mensurations.

The transmission of *Inclite flos orti gebenensis* found in CH 564 presents a fascinating system of notation through its variation of notational devices when compared to MOe5.24 (Vol. II, App. A, No. 48). The most notable visual difference between both transmissions is the use in CH 564 of full red note forms in conjunction with the mensuration signs O or \supset to notate passages in minor prolation.⁷² Furthermore, passages in MOe5.24, whose major prolation is indicated by the presence of the dot in the appropriate mensuration sign, are written in CH 564 as black notes preceded by either O and C without internal dots. Different *tempora* are also used so that the final phrase of the ballade in the S is written in MOe5.24 as \bigcirc followed by black notes, while CH 564 has O followed by black notes. The fourth change in mensuration in CH 564 is avoided in MOe5.24 by the re-writing of rhythmic durations in the affected passage. The use of mensuration signs in both versions is summarised in Table 5.3.

 $^{^{72}}$ Most mensural signs in CH 564 are drawn in red ink, a phenomenon which is inconsequential to their meaning. Several minor rhythmic variants are also found between transmissions of this work, such as the reversal of the rhythm in at S 1.1 from *brevis-semibrevis* to *semibrevis-brevis*, or vice versa. The lapsographical error at Ct 35.3-49.3 in CH 564 in conjunction with the variant reading at S 1.1 clearly indicates that both transmissions share no direct relationship with each other. It remains highly probable that both transmissions represent distinct branches in a hypothetical stemma.

Source	MOe5.24 (a	Il black notes)	CH 564		
Voice	S	Ct	Т	S Ct		T
Prima pars	0	0	©	0 + red	\circ + black	C + black
	٢		0	C + black		0 + red
Secunda	С		•	⊖ + red		\circ + black
pars						C + black
	©		С	\odot + black		⊃ + red

Table 5.3: Comparison of mensural signs in both transmissions of Inclite flos orti gebenensis.

At first sight, one might conclude that the transmission in CH 564 is erroneous. Yet, for the most part, the notational devices in CH 564 can be attributed to a logical basis that stems from contemporary notational practices codified by theorists. As has been noted above, from both a practical and theoretical perspective, the mensural signs O and C, even in the late fourteenth century, can indicate only the value of *tempus*, while prolation is determined from intrinsic relationships between the note forms. The use of full red notation is, in fact, a logical process stemming from *ars nova* techniques wherein the coefficient of imperfection, which is inherent to coloration, clarifies the relationship of prolation within the signified tempus. Furthermore, an analogy exists in several *ars nova* theoretical treatises whereby coloration is often discussed immediately after mensuration signs.

Such is the case in the Roman version of the Ars nova treatise and throughout the traditions of the Libellus cantus mensurabilis. In the Libellus, the chapter entitled Distinctio modi temporis et prolationis contains the following passages on coloration:

Item modus, tempus, et prolatio distinguutur etiam per notas rubeas sive vacuas et per nigras quando in aliquo cantu variantur. Unde si in aliquo cantu reperiantur longe nigre, rubee vel vacue: nigre sunt modi perfecti et rubee vel vacue sunt modi inperfecti, ut hic:

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Item si breves inveniantur nigre, rubee seu vacue: nigre sunt temporis perfecti, rubee vel vacue sunt imperfecti ut hic:

Item si semibreves nigre sunt maioris prolationis, rubee vel vacue sunt minoris, ut hic:

Itemcoloribus, subscriptionibus, pausis et signis perfectum distinguitur ab imperfecto et etiam cognoscitur.⁷³

The implication that coloration often indicates minor prolation is used in the notation of *Inclite flos* as found in CH 564 through the assumption that major prolation is always indicated by black note forms.^{73a}

One obvious obstacle to the present hypothesis is that the Ct of *Inclite flos* in CH 564 must be realised in minor prolation, but it is notated in that MS in full black notation. However, since this voice continues in the same mensuration throughout, the intrinsic indications supplied by note groups and dots of addition may be deemed sufficiently rich in information not to warrant the use of red ink.

Also related to the present discussion is the use of the sign \supset before passages of red *breves* in the *Mot* of Johannes Alanus' motet *Sub Arturo pleb vallata/Fons citharizancium/In* omnem terram also found in CH 564 (item 111, ff. 70v-71r).⁷⁴ This device requires a string of red *breves* be sung imperfectly, indicating that the combination of the sign and coloration signifies [2,2] with minima equivalence to the mensuration [2,3] affecting all black notes in the work. In the same work, the mensuration sign \supset is absent in cases when the colorated passages consist of only red *semibreves*. Without the sign, a degree of ambiguity exists at a practical level in relation to the duration of red *breves*. They may be either perfect or imperfect. In the concordant reading of this motet in Bc 15 (ff. 225-226r; *Trip* fragment f. 342v), the passages in question are rewritten as C with void black *breves*. As such, the relationship between concordant readings in this regard parallels the observations regarding differences observed between the transmissions of *Inclite flos* in CH 564 and MOe5.24.

⁷³ "Likewise mode, time and prolation are also indicated by red or void notes and by black <notes>, when they are varied in any song. Thus if black, red or void longs are found in any song: black are of the perfect mode and red or void <longs> are of the imperfect mode, as here: <example>. Likewise black, red or void breves are found: black are of the perfect time and red or void <*breves*> are of imperfect time, as here: <example>; Likewise black semibreves are in major prolation, red or void <*semibreves*> are in minor <prolation>, as here <example>."; This reading represents *Recensio major A* as found in Berktold, *op. cit.*, pp. 48-51 (Chap. 6, sent. 5-9).

^{73a} Concerning the use of mensuration signs and coloration in the CH 564-transmission of *Inclite flos*, Anne Stone concludes in her 'A singer at the fountain', p. 382, that coloration is misused in conjunction with eccentric mensurations signs to contribute to the visual appearance of the work. An alternative view is that the notation is in fact correct: a position which is considered here.

⁷⁴ Transnotation in Günther, The Motets of the Manuscripts Chantilly Musée Condé 564 (olim 1047) and Modena, Biblioteca estense α .M.5.24 (olim lat 568), pp. 49-52.

Rather than conclude that the sign \supset is erroneous in CH 564,⁷⁵ its presence should be regarded as a valid indication of mensuration within a particular context affecting the CH 564-transmission of the work.

The use of \supset in CH 564 with red coloration as opposed to simply C in MOe5.24 and the later Bc 15 to indicate [2,2] also warrants discussion. Musical theorists from this period usually associate \supset with the *sesquitercia* proportion at the *minima* level.⁷⁶ However, other theorists and musical practice suggest that there was an interchangeability of C and \supset at the end of the fourteenth century. Written in 1411, Johannes Ciconia's *De proportionibus* contains a chapter which not only supports the equivalence of these two signs, but which also strengthens the central hypothesis of this present chapter by suggesting a multitude of notational devices to indicate identical mensurations. In full, the passages reads:

Auctores diversi, scilicet precipue Magister Francho de Colonia prothonotarius, Johannes de Muris, et Marchetus de Padua, sic ordinaverunt cifras et signa pertinentes ad praticam musice mensurate, videlicet in modis, temporis, et prolationibus, ut hic habetur. Et primo ad tale signum: \square cognoscitur esse modi perfecti, vel sic: |:, aut sic: 3. Item ad tale signum: \square cognoscitur esse modi imperfecti, vel sic: |:, aut sic: 2. Item ad tale signum: \odot cognoscitur esse temporis perfecti maioris, vel sic: \odot , aut sic: $\frac{3}{3}$. Item ad tale signum: \bigcirc cognoscitur esse temporis perfecti minoris, vel sic: $\frac{2}{3}$. Item ad tale signum: \bigcirc cognoscitur esse temporis imperfecti minoris, vel sic: $\frac{2}{3}$. Item ad tale signum: \bigcirc cognoscitur esse temporis imperfecti minoris, vel sic: \bigcirc , aut sic: $\frac{2}{2}$. Et nota quod nos debemus semper concordare cum proportionibus suprascriptis cifras et signa suprascripta. Et hec de proportionibus, signis, cifris, et vocabulis antiquis sufficiant, ad laudem Yhesu Christi et gloriose virginis Marie eius matris. Amen. Explicit liber de proportionibus musice Johannis de Ciconiis, canonici paduani, in orbe famosisimi musici, in existentia conditus in civitate patavina, anno Domini 1411.⁷⁷

⁷⁵ Günther, The Motets of the Manuscripts Chantilly Musée Condé 564 (olim 1047) and Modena, Biblioteca estense α.M.5.24 (olim lat 568), p. liv.

⁷⁶ Prosdocimus notes the regular use of this sign among moderns, although he prefers the use of proportional signs to convey the proportional relationship more clearly, *vid.* Gallo, *Prosdocimi de Beldemandi Opera 1: Expositiones*, chap. LXI, sent 31-34.

⁷⁷ "Diverse authors, especially the first-notator Franco of Cologne, Johannes de Muris and Marchettus de Padua, ordered ciphers and signs pertinent to the practice of measured music, namely in mode, time and prolation, as is seen here: and firstly at such a sign <rectangle with three strokes>, or thus: line with three dots>, or thus: 3, perfect mode <*lit.* being of perfect mode, etc.> is understood. Likewise at such a sign: <rectangle with two strokes> or thus: line with two dots> or thus: 2, imperfect mode is understood. Likewise at such a sign <circle with three dots> or thus 3/3, perfect major time is understood; Likewise, at such a sign <circle>, or thus 2/3, perfect minor time is understood. Likewise at such a sign <C with three dots>, or thus:

The use of red coloration in CH 564 with the mensuration sign \supset appears to reinforce the concept of imperfection.

Anne Stone has already drawn attention to the correspondence between Ciconia's alternative [2,2] sign in his *De proportionibus* and the use of mensural signs in a particular transmission of a work ascribed elsewhere to him.⁷⁸ Johannes Ciconia's *Sus une fontayne* appears to be an intertextual homage (or at least nod) to the master composer of the later fourteenth century Philipoctus de Caserta.⁷⁹ As already noted above, the work survives in two sources MOe5.24 (f. 27r) and Ob 229 (f. Dv). Besides the several variants between both transmissions of *Sus une fontayne*, these transmissions also differ from one another in their notational process particularly in relation to the use of mensural signs. As will be detailed further, the MOe5.24 version transmits a relatively orthodox set of notational conventions, while Ob 229 contains less usual devices that demonstrate some similarities with *Inclite flos orti gebenensis*.

Both versions of Sus une fontayne are notated in black note shapes throughout. In MOe5.24, the signs \bigcirc , \bigcirc , \bigcirc are used to indicate [2,3], [2,2] and [3,2] respectively. Additionally, the sign \bigcirc indicates in this source a sesquitercia proportion at the minima level. Ob 229, however, presents a different set of mensural signs in corresponding locations. Meaning of the sign O remains unchanged ([3,2]), but [2,2] is indicated by \bigcirc , [2,3] by C and the sesquitercia proportion at the minima level by the numeral 3. The correspondence of these relationships is shown in Table 5.4.

musician in the world, completed in the city of Padua, in the year of our Lord, 1411."; Oliver B. Ellsworth, (ed.), *Johannes Ciconia: Nova Musica and De Proportionibus*, Greek and Latin Music Theory 9, Lincoln and London, 1993, pp. 440-43.

⁷⁸ Stone, 'A singer at the fountain', p. 385. *Q.v eadem*, "Writing Rhythm in Late Medieval Italy", pp. 119-120. Just as in the case of the CH 564-transmission of *Inclite flos*, my reading of the use of mensuration signs in the Ob 229-transmission of *Sus une fontayne* contrasts with that found in Stone's 'A singer at the fountain'. While the following paragraphs do not engage the work at the level of musico-literary narrative strategies as Stone does, I share the view that the use of mensuration signs in the Ob 229-transmission of *Sus une fontayne* should be taken seriously (*ibid.*, p. 369). The issue of diverse practices which lies at the heart of this present chapter, however, throws into question Stone's assertion that the notational practices in the MOe5.24transmission of *Sus une fontayne* (and *Inclite flos*) are normative. At the time and place MOe5.24 was copied, such practices may have been considered "normative". However, as I have already demonstrated through my survey of notational theory and practice, the notion of normative practices in fourteenth-century music is best discarded in favour of diversity, both conjunct and disjunct.

⁷⁹ On studies examining citation and intertextual relationships this and related works *vid. supra*, Chapter 2, p. 50, fn. 81.

mensuration	MOe5.24	Ob 229
[3,2]	0	0
[2,3]	C	С
[2,2]	С	C
Proportio sesquitercia	C	3

Table 5.4: A comparison of mensuration signs in two transmissions of Sus une fontayne.

The Ob 229 transmission of *Sus une fontayne* appears to avoid or be unaware of dots of prolation in mensuration signs. The use of coloration to define prolation in the CH 564 transmission of *Inclite flos orti gebenensis*, is not found in the Ob 229 transmission of *Sus une fontayne*, however, once again the intrinsic indications of prolation by means of note groupings and *puncti* may have been deemed sufficient information for the determination of prolation. Similarities also exist in the use of the reversed C in *Sus une fontayne* of Ob 229 and *Inclite flos orti gebenensis* in CH 564, despite the lack of coloration in Ob 229. The use of the numeral 3 to indicate *proportio sesquitercia* in Ob 229 (rather than the more usual meaning of *sesquialtera*) may be explained as an extension of proportional nomenclature, that is *sesquitercia* means "one more than three".

Other works from the repertoire also demonstrate less conventional uses of mensuration signs. The identical use of C with black note forms to indicate [2,3] is found in Trebor's *Quant joyne cuer en may est amoureux* (CH 564, f. 31r; *vid.* Vol. II, App. A, No. 49). In the refrain of this work's uppermost voice, the *sesquialtera* effect of \bigcirc is cancelled by C. The subsequent passage must be realised in [2,3]. Likewise, both transmissions of Philipoctus de Caserta's *Par le grant senz d'Adriane* (CH 564, f. 37v; Pn 568, 125v-126r^{so}) see the use of the sign C to indicate [2,3] (*vid.* Vol. II, App. A, No. 21). Red coloration (void in Pn 568) serves as an intrinsic indication of the prolation of black note forms through obvious ternary groupings that rely on imperfect *semibreves.* Black *semibreves* must therefore

⁸⁰ According to Nádas, "The Transmission of trecento Secular Polyphony", pp. 234, 286, Scribe D, who was responsible for the addition of gatherings 6 and 8 to Pn 568, also copied *Par les grant senz* into this manuscript's 13th gathering which hitherto contained works mostly added by Scribe B. On the dating of Scribe D's activity in Pn 568, see above. The inclusion of *Par les grant senz* demonstrates Scribe D's interest in *avant garde* techniques also present in notationally advanced compositions of Paolo Tenorista in gathering 8, especially *Amor da po che tu ti meravigli*. Another work by Paolo, *Era Venus*, also notated by Scribe D sees the use of a *modus-tempus* sign of \supset above 3 to indicate *modus perfectum, tempus imperfectum minoris, vid*. Wolf, *Geschichte der Mensural-Notation*, p. 321.

be perfect or of the major prolation. Similarities between these last two works and *Inclite flos* orti gebenensis and Sus une fontayne, however, do not extend to the use of the reversed C mensuration sign. In Quant joyne cuer en may est amoureux and Par le grant senz d'Adriane this sign always indicates a sesquitercia proportion at the minima level (or in respect to major prolation).

As such, the use of mensuration signs in the aforementioned works represents an extension of one facet of *ars nova* notational techniques. There is sufficient evidence from *ars nova* theory and late copies of *ars nova* repertoire to suggest that the O and C (or \bigcirc) mensuration signs sometimes indicated *tempus* only and that dots of prolation within signs were not always used or deemed necessary. It is unlikely that these practices are representative of mainstream, northern French notational practices. Rather, if one considers what is known about the composers of the works described above and the relationship of their text to historical events, it might be concluded that the practices described above are indicative of notational tendencies towards the end of the fourteenth century.

At a superficial level, the text of *Par le grant senz d'Adriane* appears as conventional Ancient Greek mythological subjects combined with themes from *l'amour courtois*.⁸¹ As realised by literary scholars at the beginning of the twentieth century (but undoubtedly also

- ⁸¹ The text and its translation is as follows: Par le grant senz d'Adriane le sage, Fu Theseüs gardes de periller Quant a son tour li convient le voÿage En la maison Dedalus essaier.
- 5 Puis la trahi et la vost essillier Fortrait li a un iouel de grant pris Qu'avoir ne puet sanz O couvert de lis.

Adriane est si noble de linage Et si puissant c'on la puet reconter.

- 10 Le iouel ot de son propre heritage Que Theseüs s'efforsa d'usurper Et pour l'avoir le tienent en grant dangier Se socours n'a, se iouel est peris Qu'avoir ne puet sanz O couvert de lis.
- 15 Mais le lis est de si tres haut parage, Bel a veoir, plaisant a mainer Riche on povoir, de si perfait courage Qu'a la dame puet sa vertu envier Roulant ne Hector ne li faut souhaidier
- 20 Pour secourir le iouel de grant pris, Qu'avoir ne puet sanz O couvert de lis.

By the good sense of Ariadne the wise Theseus was protected from peril When in his turn he travels to attempt Daedalus' labyrinth. Then he betrayed her and wished to exile her Snatching for himself a jewel of great worth That none can have without O covered by the lily.

Ariadne is of such a noble line And so powerful that one can recount it. The jewel was her true inheritance that Theseus tried hard to usurp and to have it, place it in great danger. There is no help, the jewel is lost That none can have without O covered by the lily.

But the lily is of such high extraction, Handsome to see, pleasant in bearing, Rich in power of such perfect courage That he can offer his virtue to the lady. Neither Roland nor Hector need she wish for to protect the jewel of great worth That none can have without O covered by the lily. obvious to the composer's contemporaneous audience), the text of Philipoctus' *Par le grant senz d'Adriane* refers to events in the Kingdom of Naples.⁸² On 1st June 1381, Charles Durazzo (=Theseus) usurped the throne from his former guardian Queen Johanna (=Ariadne) of Naples.⁸³ The Kingdom of Naples or its throne is referred to in the text as *le iouel* ("the jewel"). This seizure of power from its pro-Clementine ruler was openly encouraged by the Roman Pope Urban VI (1378-89). However, Avignonese Pope Clement VII (1378-94) countered by condoning a campaign by Louis I, Duke of Anjou, to recover his title. Louis' claim to the throne of Naples was the result of previous machinations by Clement VII whereby he convinced Johanna to continue the Angevin rule of Naples and to name Louis her heir in 1380. Hence the lily most appropriately represents Louis, prince of the House of French Valois (whose arms bore the *fleur-de-lys*). As Nigel Wilkins states, this is made plain by the solution of the puzzle in the refrain of the ballade: "O covering the LIS (lily)" = LOIS, which is the common spelling of Louis in the fourteenth century.⁸⁴

In light of these references to historical events, *Par le grant senz d'Adriane* could only have been written before the murder of Queen Johanna on 12 May, 1382 although this news did not reach Louis until September when he had already embarked upon his Italian campaign. The earliest possible date for the chanson's composition is likely January 1382 when Louis began preparing for his campaign in Avignon to reclaim the Kingdom of Naples for himself and Rome for Clement VII.⁸⁵ Unfortunately, there is little internal indication of where this work might have been composed, although it is curious that the work focuses on the politics of the Kingdom of Naples rather than the reclamation of Rome. However, it may simply be a case of the composer's own interest in the fate of the Kingdom in which his town of origin, Caserta, laid.

The text of *Inclite flos orti gebenensis* also contains references to persons and events in the late fourteenth century which intersect those alluded to in *Par le grant senz d'Adriane*.

⁸² Delisle, Institut de France, Le Musée Condé. Le Cabinet des livres. Manuscrits II, p. 280.

⁸³ Urban VI proclaimed Durazzo King of Naples on 1st June, however, his forces only entered Naples on 16th July.

⁸⁴ Wilkins, 'Some notes on Philipoctus de Caserta (c.1360?-1435)', pp. 82-99. Additional meaning may be read into the text of this ballade. The orthography of *Adriane* as opposed to Ariadne may provide further clues to the text. As such *Adriane* bears a striking resemblance to the name of the kingdom created by Clement for Louis I d'Anjou, Adria. Reference to *Adriane* in the ballade may therefore contain a double meaning. The first line may also mean "by the great sense (of the imminent formation) of the kingdom of Adria", while the second line can be read as an attempt to legitimise Clement's creation of the Kingdom of Adria.

⁸⁵ Plumley, 'Citation and allusion in the late *ars nova*: the case of *Esperance* and the *En attendant* songs', p. 355, fn. 109.

There is little doubt that *Inclite flos orti gebenensis* refers to Avignonese Pope Clement VII, formerly Robert of Geneva.⁸⁶ The second strophe of the ballade refers to allegiances Clement had gained shortly after his taking of office in 1378. The favour of the *Ortus hispanensis* ("Spanish garden" or "Spanish born") was that of the Kingdom of Castile which was granted in May, 1381. The *virgultus Gallorum* ("tree of the French") had supported Clement since 1379.⁸⁷ The last stanza is unfortunately too corrupt to provide any specific additional meaning, although some may be salvaged from the text.⁸⁸ As such, the first two lines describe one who is "more just that the just" (*iustis hic iustior*) acting on Clement's behalf (*pro te*). Following Rosenberg's suggestion, Andrew Tomasello has argued that *celiferus encis*, in the first line of strophe three, may refer to the Mont Cénis found in the western

⁸⁸ The manuscript reading of the text in CH 564 (2nd and 3rd strophes appear only in this MS) is as follows, with problematic words in bold type and punctuation as found in MS, with a plausible translation:

,	Inclite flas arti gehenensis	O renowned flower of Geneva's garden
	cuius odor halssamis dulcior	whose fragrance is sweeter than balsam
	nrestantihus rarihus immensis	with outstanding infinite perfume
	α or here α is a contract matrix of $MOe5$ 24> ceteris altiar	it fills the world, loftier than the rest
5	salveaue jocundare	Hail and rejoice!
5	uec ad terram velit < but velis MOe5 24> declinare	Do not turn your sails for land
	pronter naucum ventum Nam dicitur	on account of little wind. For it is said
	In adversis virtus perficitur	that "in adversities virtue is perfected "
	xn auversis vireus perjaceur.	that mattershies made is perfected.
	Tibi fauet ortus hispanensis	To you, the garden of Spain is favourable
10	gallorumque uirgultus carior.	And the tree of France dearer,
	Ortulanum producens extensis	Producing a garden of outstretched
	brachiis qui viredis pocior.	Branches which, more potent
	Prorutis observare <pro 564="" ch="" ruinis=""></pro>	than the overthrown weeds, is
	te satagit. idcirco letare	enough for you to see. Therefore be joyful
15	nam te siquis turbare uicitur <turbat, evincitur="" rosenberg=""></turbat,>	For it conquers whoever disturbs you:
	In adversis virtus perficitur.	"In adversities virtue is perfected."
	Pro te floris <flores rosenberg=""> celciferus encis</flores>	For you, this heaven bearing sword of the flower
	ferit namque iustis hic iustior.	therefore smites, more just than the just.
	veridicis certat pro te foncis	He contends for you with true words of the fountain,
20	quo favente quisque velociter.	Each man, by his favour, is swifter
	quo (or suo?) ductus iubare	lead by him to do his bidding,
	se prosternat tis <sic> pedibus</sic>	he prostrates himself at your feet
	quare si leteris sapit quod subditur.	For, if you rejoice, he knows what was replaced:
	In advercis <sic> virtus perfecitur.</sic>	In adversities virtue is perfected.

⁸⁶ The subject of the ballade is referred to as *Inclite flos orti gebenensis* ("O renowned flower of Geneva's garden"). *Ortus* is read as *hortus* with the understanding that the orthography in CH 564 is indicative of a common trait among scribes whose mother-tongue is a Romance language and "h" is largely silent. There is some ambiguity, however, at the beginning of the second strophe where *ortus* may mean 'born' (from *orior, oriri, ortus*). However, retaining the horticultural theme gives greater integrity to the ballade overall. If there is any further doubt concerning the identity of the ballade's subject, the tenor voice label in CH 564 is followed by the rubric *pro papa Clement*. ("For the pope Clement").

⁸⁷ Tomasello, *Music and Ritual at Papal Avignon 1309-1403*, p. 41; *cf.* Günther, 'Zur Biographie einiger Komponisten der Ars Subtilior', pp. 172-199. There are some indications that the cardinals had in principle support from the Kings of France and Castile before the election of Robert of Geneva at Fondi 20th September, 1378: *vid.* Walter Ullman, *The Origins of the Great Schism*, s.l., 1967, p. 55. This point has also been recently re-articulated by Di Bacco and Nádas, 'The Papal Chapels and Italian Sources of Polyphony during the Great Schism', p. 47, fn. 7.

Alps, in what was formerly the Kingdom of Savoy. Tomasello has further argued that, with emendation to the reading of the third line of this strophe, the subject of the third strophe might be Amadeus VI, the Green Count of Savoy, who participated with Louis I d'Anjou in his short-lived campaign in central Italy.⁸⁹ Amadeus also met his death in Italy in 1383.⁹⁰

Rosenberg's and Tomasello's readings are, however, purely conjectural.⁹¹ While it can be said that the third strophe refers to an advocate of Clement, no certain indications of this person's identity can be gleaned from the text in its present state. It is possible that the text refers to Louis I d'Anjou or Amadeus VI of Savoy whose joint campaign in Italy promised an end to the schism by removing Clement's opponents. However, the verb *certare* has both military and secular connotations. To struggle by means of *veredicti fontis* ("the fountain's truths") may indicate one who contends for Clement with rhetorical or poetic invective. The association of the fountain with poetic inspiration is a phenomenon well known to medieval scholarship. However, there is no statement that alludes to the recovery of the Kingdom of Naples or of Rome itself. Rather the text centres on the recognition of Clement's papacy and the persuasive agent who will bring it greater support. It is still therefore likely that *Inclite flos orti gebenensis* was written at the beginning of the Schism when Clement was securing alliances in France, the Iberian peninsula and parts of Italy.

⁸⁹ Tomasello, *Music and Ritual at Papal Avignon 1309-1403*, pp. 41-42. Tomasello advocates the reading of "For this mountain (or man) of the green spring, more just than the just, struggles on your behalf. By which favoring splendor, each, having been more quickly lead for you, prostrates himself at your feet.", loc. cit. Unfortunately this rendering as it stands is poor, omitting several aspects of the original, such as the first verb. The suggestion by Samuel N. Rosenberg, editor of the texts in Willi Apel's edition *French Secular Compositions of the Fourteenth Century*, Corpus Mensurabilis Musicae 53, s.l., 1970, vol. 3, p. LVI, that the third line of the third strophe may have originally read *viriditas certat pro te frondis* ("The green of the leafy bough fights for you") also supports Tomasello's reading. It is also possible that the original read *flores celifer Cineris / ferit* (i.e. (celifer-)us->con->cin, with first two steps as abbreviations), "heaven-bearer of Cénis <i.e. Mount Cénis> shall bear flowers."

⁹⁰ On the life and rule of Amadeus VI of Savoy vid. Eugene L. Cox, The Green Count of Savoy: Amadeus and Transalpine Savoy in the Fourteenth Century, Princeton, 1967. See especially *ibid.*, pp. 319-349 on his role in Anjou's Italian campaign and his death.

⁹¹ Another possible reading is *Pro te floris celsiferus ensis / Ferit namque iustis hic iustior. / Veredictis certat pro te fontis /Quo favente quisque velocior / Suo ductus iubare / Se prosternat tuis pedibus... ("This heaven bearing sword of the flower therefore smites for you, more just than the just. It contends for you with true words of the fountain, by it favouring each man, who having been lead more swiftly by its bidding, prostrates himself at your feet.") [My translation.] The emendation of encis->ensis is supported by the last line where one finds <i>advercis* for *adversis*. The correction of *celciferus* to *celiferus* seems warranted as it seems to be a conflation of *celsus* (lofty)[or *celsitudo=*"great") and *celifer* (heaven-bearing). The shift of *veridicis* to *veredictis* or even *veridictis* (from *vere dicere* "to speak truthfully") is an equally appropriate response to this Gallicism (*cf. véridique*). There is, however, still a question over the lack of a direct object that one might expect to find after the first verb, *ferit*, which possibly indicates that meaning of the first line of this strophe is irrevocably lost. Rosenberg emended *ferit* to *fert* (he/she/it bears), which results in a shortening of the line to nine rather than ten syllables. Decasyllabic lines occur throughout this ballade on all other lines except the fifth of each strophe.

Additional data is supplied by biographical details of the composer of Inclite flos orti gebenensis. Based on the assumption that Mayhuet de Joan and Matheus de Sancto Johannes are synonymous, archival research has unearthed several cases of an individual with the latter name. A member of Louis I d'Anjou's chapel bears it in a supplication to Clement VII dated 17 November, 1378.92 The name Matheus de Sancto Johanne also occurs first among members of chapel of Clement VII in the Introitus et Exitus books of 30th October and 20th December, 1382.93 Considering the connections of Inclite flos orti gebenensis to Clement, scholars have suggested that Matheus de Sancto Johanne, who was a chapel singer, can be identified as the composer of this work. The individuals in the employ of both Louis I d'Anjou and Clement are most likely the same person. Ursula Günther suggests that Matheus might have seized the opportunity to be transferred into the employment of Clement VII before the end of May 1382, when Louis d'Anjou departed Avignon after several months of preparations before setting out on his Italian expedition to recover the Kingdom of Naples.⁹⁴ At Avignon, Matheus appears to have remained in the employ of Clement until at least April 1386.95 It is therefore possible that Matheus [==Mayhuet] wrote this work for celebrations before Louis' departure on his fateful expedition.96

⁹⁶ There is a "Mathieu du monastère Saint Jehan" found in 1363 as a chaplain in the service of Queen Johanna of Naples. Hoppin and Clercx, *loc. cit.*, argue that this individual might have passed into Louis I

⁹² Hoppin and Clercx, 'Notes biographiques sur quelques musiciens français du XIV siecle', p. 76. This document also indicates Louis' early recognition of Clement.

⁹³ Günther, 'Zur Biographie einiger Komponisten der Ars Subtilior', p. 180; *cf.* Tomasello, *Music and Ritual at Papal Avignon 1309-1403*, pp. 252-3. The supplication does mention that Matheus had served Clement previously, but in what capacity is unknown.

⁹⁴ Günther, 'Zur Biographie einiger Komponisten der Ars Subtilior', p. 183.

⁹⁵ That Matheus was dead by 12th July 1391 is indicated by the conferral of the chaplaincy of Beaurevoir (Cambrai), previously reserved by Matheus, to Johannes Vitrarii on that date (Tomasello, loc. cit.). The early career of Matheus is discussed by Andrew Wathey, 'The Peace of 1360-69 and Anglo-French musical relations', pp. 144-150. Wathey equates a "Matheu Seintjon", who is named in a request made on13 May 1368 for safeconducts for certain members of the household chapel of Queen Philippa (queen of Edward III) to leave England for France (ibid., pp. 144-45, edition of document on p. 161), to Matheus de Sancto Johanne. Wathey also states that Matheus de Sancto Johanne "very likely joined the Duke of Anjou's expedition to Rodez and the Rouergue in 1377; he was probably also with the duke's chapel at Avignon in 1380" (ibid,, pp. 147-8). He dismisses, however, Günther's suggestion that Matheus was also a clerk to the Duke of Orléans due to the confusion made in the edition to which Günther referred between Louis de Orléans and his son Charles. Wathey speculates that Matheus' English employment may be due to the fact that his place of origin (Thérouanne) now lay in English territory gained in the Treaty of Brétaigny (1360). However, it appears that Matheus may have made his way to England in the employ of Enguerrand de Coucy (vid. Di Bacco and Nádas, 'The papal chapels and Italian sources of polyphony during the Great Schism', p. 46-47, fn 7). As suggested by Wathey, this association with England strengthens the case for the attribution of the work Are post libamina by Mayshuet in London, British Library, Additional 57950 (olim Old Hall, Library of St. Edmund's College) to Matheus de Sancto Johanne. Q.v. Andrew Wathey, 'Matheus de Sancto Johanne', in The New Grove Dictionary of Music and Musicians, 2nd edn, ed. S. Sadie, London, 2001, vol. 16, pp. 120-1.

It seems, therefore that both *Inclite flos orti gebenensis* and *Par le grant senz d'Adriane* were composed within the first few years of the Schism. Both works demonstrate connections with Clementine politics in this period and both may be connected to the Angevin aspirations in central Italy. Unfortunately, the text of each work lacks any indication of the geographical situation in which these works would have been composed. However, the central role in 1382 of Avignon as Louis d'Anjou's spring-board into Italy and the apparent transferral of Matheus de Sancto Johanne from the employ of Anjou to Clement in that same year, strongly suggests that *Inclite flos orti gebenensis* was written at Avignon, either to impress his future patron or advocate his departing prince.

The presence of Philipoctus de Caserta at Avignon is by no means certain if at all likely. Another work also attributed to him, Par les bons Gedeon et Sanson, advocates le souverayn pape s'appelle Clement. However, this need not indicate that Philipoctus was a servant of Clement, but could indicate he was employed in the court of a Clementine adherent. Genievre Thibault suggested in 1969 that another work ascribed to Philipoctus, En atendant souffrir m'estuet hinted at relations with the court of Bernabo Visconti (†1385) through its use of the latter's motto (soufrir m'estuet).⁹⁷ Although not strictly Clementine, the Visconti demonstrated a preference for doctrinal ambiguity when it suited their political ends. Reinhard Strohm used the association of En atendant souffrir m'estuet to argue the hypothesis that Philipoctus was in the service of the Visconti at Milan,98 and that Par le grant senz d'Adriane may have been written during Anjou's visit to Milan in 1382 en route to central Italy.99 Recently, in her study detailing some aspects of intertextuality in the works of the ars subtilior, Yolanda Plumley has argued against the Visconti hypothesis by suggesting that it would be unlikely that a musician in the employ of the Visconti would have written a work with such a staunch political position as Par les bons Gedeon et Sanson.¹⁰⁰ Plumley then reproposes that Philipoctus "clearly...was in the service of someone from the Avignon camp" and, based on a complex nexus of intertexts, he can be situated in a circle of composers

d'Anjou's service upon his inheritance of the Kingdom of Naples. Günther ('Zur Biographie einiger Komponisten der Ars Subtilior', pp. 183-4) has observed, however, that since Matheus de Sancto Johanne is already in the service of Louis in 1379, as indicated by the supplication to Clement, and that Anjou's adoption was only finalised in 1380, it is unlikely that the monk of Naples is Matheus de Sancto Johanne. *Cf.* Wathey, 'The Peace of 1360-69 and Anglo-French musical relations', p. 148.

⁹⁷ Thibault, 'Emblémes et devises des Visconti dans les oeuvres musicales du trecento', p. 152.

⁹⁸ Strohm, 'Filippotto da Caserta, ovvero i francesi in Lombardia', p. 69.

⁹⁹ Strohm, The Rise of European Music, 1380-1500, p. 52.

¹⁰⁰ Plumley, 'Citation and allusion in the late *ars nova*: the case of *Esperance* and the *En attendant* songs', p. 356.

including Matheus de Sancto Johanne, Senleches, Hasprois and Johannes de Alte Curie. She suggests that one of the Neapolitans at Avignon (such as Antonio de la Ratta, count of Caserta and Anjou's counsellor in April 1382), Clement or one of the cardinals at Avignon may have been Philipoctus' employer. The former suggestion is particularly attractive considering the aforementioned concern in this text for Neapolitan politics rather than the reclamation of Rome.

It is tempting to conclude from the similar idiosyncrasies in the use of mensuration signs in *Inclite flos orti gebenensis* and *Par le grant senz d'Adriane* that these notational traits are indicative of a transalpine school of notation. However, Trebor's *Quant joyne cuer en may est amoureux*, previously mentioned for some similarities to *Par le grant senz d'Adriane*, appears to describe the colours in the arms of King John I of Aragón (1350-1396).¹⁰¹ Likewise, Trebor's ballade *En seumeillant m'a vint une vesion* (CH 564, f. 21v) refers to John I of Aragón's expedition to Sardinia in 1388-9,¹⁰² while his *Passerose de beauté* (CH 564, f. 21r), which contains intertextual relationships with Eustache Deschamps' ballade dedicated to her mother Maria of Bar, appears to refer to Yolande of Bar after her marriage to John I of Aragón in 1380.¹⁰³ Two other compositions by Trebor, *Se July Cesar, Rolant et Artus* (CH 564, f. 43r) and *Se Alixandre et Hector* (CH 564, f. 30r),¹⁰⁴ contain references to the rulers of Foix (respectively Gaston III and Mathieu I). However, the last four works avoid any type of mensural signs and may therefore only be used as an indication of the approximate period in which Trebor was active as a composer.

If the use of mensural signs in *Quant joyne cuer en may est amoureux* is reflective of earlier practices, possibly those of its composer, it suggests a more general geographic extent for those same practices evident in works from the 1380s. It is arguable that the use of mensural signs described above occupy one strata in a socio-culturally based practice among particularly French, or French enculturated, musicians whose notational process and musical works have an international scope. This is not to say that these practices are exclusive, but

¹⁰¹ Reaney, 'The Manuscript Chantilly, Musée Condé', p. 78; Willi Apel thought the reference was to Charles II of Navarre, in *French Secular Music of the Late Fourteenth Century*, p. 2b; While Reaney points out that the colours described are those of the house of Aragón, Hirshberg suggests that the line *roy puissant viennent de lointain paiz* may also refer to John's Sardinian expedition, in Hirshberg, "The Music of the Late Fourteenth Century", p. 276. *cf.* Gómez, 'La musique a la maison royale de Navarre a fin du moyen-âge et le chantre Johan Robert', p. 139.

¹⁰² Hoppin and Clercx, 'Notes biographiques sur quelques musiciens français du XIV siecle', p. 79.

¹⁰³ Gómez, 'La musique a la maison royale de Navarre a fin du moyen-âge et le chantre Johan Robert ', p. 145.

rather they represent one movement within the multiple notational practices evident within this period.

5.5. Proportional uses of mensuration signs in the ars subtilior

The most common proportional mensuration sign during this period was \bigcirc . This usage is separate to its use as an alternative sign of [2,2] described in the previous section. The question arises as to how musicians and scribes conceptualised these signs. In his discussion of this sign in 1404, it seems that Prosdocimus de Beldemandis considered the sign to be an indicator of proportional diminution when he wrote that, while he cannot see any mathematical reason why it should be so, the sign \supset "diminuit ad sesquiterciam".¹⁰⁵ It is not immediately obvious to which level of mensuration this proportion should be applied. It is clear from another passage in the same chapter of the Expositiones that Prosdocimus considers \supset to be another sign for indicating *fractio* (=proportion).¹⁰⁶ Immediately prior to this statement, Prosdocimus also specifies that in the case of Indo-Arabic fractions, *fractiones* are reckoned at the *minima* level. It seems likely, therefore, that the *sesquitercia* proportion of \bigcirc is described relative to the *minima*. There is little in Prosdocimus' statement to suggest that the sign was conceived (at least for him) in terms of mensuration, so the assumption that the sign in the ars subtilior indicates [2,2] diminutum per medium (2:1),¹⁰⁷ that is $\odot = \bigcirc$ $= \bigcirc$. , is fallacious. However, it is clear from the verb *diminuere* that Prosdocimus considers this a process by which the durations of note values are reduced. While this assessment from a theoretical perspective is borne out for the most part by practice, there are, however, some indications that the meaning of this sign changes according to contextual determinants.

¹⁰⁴ Günther, 'Eine Ballade auf Mathieu de Foix', pp. 69-81. *Cf.* Gordon K. Greene, 'Trebor', in *The New Grove Dictionary of Music and Musicians*, ed. S. Sadie, London, 1980, vol. 19, p. 126.

¹⁰⁵ 'Diminishes to the 4:3 proportion'; Gallo, *Prosdocimi de Beldemandi Opera 1: Expositiones*, Chap. LXI, sent. 34. The use by Prosdocimus of a proportional qualification with *diminuere* possibly betrays the view that, while not all diminution and augmentation is proportional, all proportions cause precise diminution or augmentation. It is, in my view, a matter of simple semantics: the verb *diminuere* and its participle. *diminutum* without any further qualification can only indicate reduction of an imprecise nature.

¹⁰⁶...etiam fractio potest cognosci secundum aliquos per aliud signum, scilicet semicirculum transversum sive dextrum respicientem partem sinistram, ut hic: \circ ("...according to some men proportion is also able to be known by other signs, namely the reversed semicircle or with the right part facing left, as here..."); Gallo, Prosdocimi de Beldemandi Opera 1: Expositiones, Chap. LXI, sent. 31.

¹⁰⁷ Apel, Notation of Polyphonic Music, p. 418; Anne Stone, "Writing Rhythm in Late Medieval Italy", p. 73.

In the three principal sources of the *ars subtilior*, the sign \supset occurs most commonly in [2,3].¹⁰⁸ In all cases, there results a *sesquitercia* proportion at the *minima* level (and a duple proportion of the imperfect *semibrevis* to the perfect *semibrevis*). The only exceptions occur in *Puisque ame sui doucement* (Tn J.II.9, f. 107r)¹⁰⁹ and *Je prens d'amour noriture* (Tn J.II.9, f. 145r)¹¹⁰, where canons specify them as indicators of the proportions of 3:2 and 5:2 at the *minima* respectively. The same *sesquitercia* relationship is found in one work from the repertoire in [3,3], *En remirant vo douce pourtraiture* by Philipoctus de Caserta.¹¹¹ It is noteworthy that the two anonymous works in CH 564, *En Albion de fluns* and *De tous les moys* only ever use this sign in conjunction with full red notes, thereby resulting in a *proportio dupla* at the *minima* level, that is 4:3 x 3:2 = 2:1 (*vid.* Vol. II, App. A, No. 50, Ct 21 *et passim*; Vol.II, App. A, No. 22, Ct 1.3 *et passim*). Where a strict *proportio sesquitercia* at the *minima* is required in this work, void red note forms are used instead. Furthermore, its also appears that the substitute mensuration sign $\frac{2}{2}$ in Anthonellus de Caserta's *Dame d'onour en qui tout mon cuer maynt* is analogous to \supset in that it signifies that same sesquitercial proportion in relation to [2,3].

¹⁰⁸ Jo. de Alte curie, Se doit il plus en biau semblant, CH 564 f. 15v; Trebor, Quant joyne cuer, CH 564 f. 31r; Philipoctus de Caserta, Par le grant senz d'Adriane, CH 564 f. 37v; Anon., En Albion de fluns, CH 564 f. 47v; Anon., De tous le moys, CH 564 f. 48r; Matheus de Perusio, Gloria, MOe5.24 lv-2r; Anon., En un vergier clos par mesure, MOe5.24 f. 18v; Philipoctus de Caserta, En atendant souffrir m'estuet, MOe5.24 f. 20r; Jo. Cicionia, Sus une fontayne, MOe5.24 ff. 26v-27r; Matheus de Perusio, Le greygnour bien, MOe5.24 ff. 31v-32r; Matheus de Perusio, Dame souvrayne, MOe5.24 f. 38r; M. de Perusio, Se pour loyalment, MOe5.24 ff. 43v; M. de Perusio, Pour bel acueil, MOe5.24 ff. 44v; M. de Perusio, Sera quel zorno may, MOe5.24 ff. 47v-48r; M. de Perusio, Gloria, MOe5.24 ff. 49v-50r; Anon., Pour haut et liement chanter, Tn J.II.9 f. 104v; Anon., Je ne quid pas, Tn J.II.9 f. 112r; Anon., Se vrai secours, Tn J.II.9 f. 114v-115r; Anon., L'esperer sans aucun bien, Tn J.II.9 f. 132v; Anon., Tout houme veut, Tn J.II.9 ff. 135v-136r; Anon., Esvellons nous mes tres parfais amis, Tn J.II.9 f. 136v; Anon., S'aucunne fois fortune son effort contre moy, Tn J.II.9 f. 138v; Anon., Il n'est amant qui n'a le cuer espris de loiaute, Tn J.II.9 f. 152r; Anon., La dame ou mon cuer se retrait, Tn J.II.9 f. 152r; Anon., Il faut pour trouver un bon port, Tn J.II.9 f. 153v; Anon., Parle qui veut ie veuil loiaument vivre, Tn J.II.9 f. 158r.

¹⁰⁹ For a transnotation of this work, *vid.* Richard H. Hoppin, (ed.), *The Cypriot-French Repertory of the Manuscript Torino, Biblioteca Nazionale, J.II.9*, Corpus Mensurabilis Musicae 21, Rome, 1963, vol. IV, No. 45 (Virelai 17).

¹¹⁰ For a transnotation of this work, vid. Hoppin, The Cypriot-French Repertory of the Manuscript Torino, Biblioteca Nazionale, J.II.9, 1963, vol. III, No. 26.

¹¹¹ However, as noted in Chapter 4, p. 203, this mensuration sign is only used in one out of three extant transmissions of this work. Unlike the MOe5.24-reading, the transmissions of *En remirant* in CH 564 and Pn 6771 use void red coloration. Busse Berger also notes the use of \supset in [3,3] in the Old Hall manuscript (London, British Library, Add. 57590), in a *Credo* by Bittering, f. 66v-67r, in *op.cit.*, p. 174; *q.v. eadem*, 'The Origin and Early History of Proportion Signs', *Journal of the American Musicological Society*, vol. 41, no. 3, 1988, p. 411;

The sign \bigcirc is also employed, but with less frequency, in [3,2] (O).¹¹² However, two facts indicate a conceptual shift in the use of that sign in this particular mensuration. The first is that only *semibreves* or *breves* are found in passages affected by this sign. From this, the implication is that the *sesquitercia* relationship is now intended at the *semibrevis* level (although it would exist at the *minima* level also). Secondly, it is possible that all works in CH 564¹¹³ and MOe5.24 using \bigcirc in \bigcirc are notated in augmented note values, which must be diminished (by a half?) upon their execution. It follows that if in the change from natural to augmented notation there is a shift from the *semibrevis* to the *brevis* as the primary time unit (or *tactus*), then there is likewise a corresponding shift of the proportional significance of \bigcirc from the *prolatio* level to the *tempus* level. It is noteworthy that in Anthonellus de Caserta's *Tres nouble dame* (Vol. II, App. A, No. 52) the meaning of the sign in the context of [3,2] *dim* is explained by the canon: *Ubicumque inveneris signum imperfectum minoris cantetur in modo epitrito*.¹¹⁴ This first-hand witness to the practice once again articulates the sign's meaning in terms of a *sesquialtera* (*=epitritus*) proportion.

The discussion cannot proceed without mentioning the awkward use of \supset combined with special note shapes in the CH 564 (f. 24r; *vid.* Vol. II, App. A, No. 7) and Fn 26 (ff. 104v-105r) transmissions of the anonymous *Je ne puis avoir plaisir* where $\supset \bigoplus = \bigcirc \bigstar$

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¹¹² Susay, Prophilias un des nobles de Roume, CH 564 f. 35v; Anthonellus de Caserta, Tres nouble dame, MOe5.24 f. 28v; Matheus de Perusio, Gia de rete d'amour, MOe5.24, f. 46v. Busse Berger notes the phenomenon in 3 works from the Old Hall MS in Mensuration and Proportion Signs, p. 174.

¹¹³ Vid. Günther, 'Der Gebrauch des Tempus perfectum diminutum in der Handschrift Chantilly', pp. 277-297.

¹¹⁴ "Wheresoever you find the imperfect minor sign, it must be sung in the proportion of 4:3."

effected according to the sign \supset before their realisation. In addition, other variants in the transmission in MOe5.24 provide effective solutions in their own right and can hardly be considered errors as Ursula Günther argues.¹¹⁵ Rather, the scribes of CH 564 and Fn 26 appear to over-compensate by writing the sign \supset before groups of special note shapes.¹¹⁶

This hypothesis is strengthen by comparison of *Je ne puis avoir plaisir* to another work which uses the same special note shapes (,,) within the framework of *tempus perfectum* diminutum. The anonymous Je la remire sans mesure (Vol. II, App. A, No. 53) is transmitted in three sources (MOe5.24, f.34r; Pn6771, f. 80r; Pn 568, ff. 126v-127r). However, as Anne Stone has previously observed,¹¹⁷ these transmissions differ from one another especially in their placement of the mensural signs O and C. Stone suggests, particularly in the case of MOe5.24 and Pn 568,¹¹⁸ that different mensural concepts are embodied in the variants between these two transmissions. While the scribe of MOe5.24 consistently employs the mensural sign C to govern passages of semibreves caudate and dragme (thereby suggesting a conceptualisation of the special signs in terms of augmentation reminiscent of Je ne puis avoir plaisir) several passages of these note shapes are preceded instead by O in Pn 568 suggesting that these notes are thought of in terms of their proportional relation to tempus perfectum. However, Stone fails to mention that the transmission of Je la remire sans mesure in Pn 568 is by no means consistent in its use of mensural sign O before passages of caudate and dragme. Several passages are preceded instead by C as in the transmission in MOe5.24. Rather than suggesting that the scribe of MOe5.24 had copied from a version similar to Pn 568,¹¹⁹ it is more probable that Pn 568 represents an incomplete recasting of the work in terms of the proportional significance of the special signs.

The view that \bigcirc operates proportionally at the *semibrevis* level in *tempus perfectum* diminutum is strengthened by a comparison with a work in the same mensuration, Le sault perilleux by Galiot (vid. Vol. II, App. A, No. 54). A canon indicates that the following relationships are conveyed by the respective mensuration signs: $\mathbb{C} = 4:3$, $\odot = 3:2$, $\odot =$

¹¹⁵ Günther, 'Die Anwendung der Diminution in der Handschrift Chantilly 1047', p. 5.

¹¹⁶ Or in Anne Stone's terms ("Writing Rhythm in Late Medieval Italy", p. 132): "thus \bigcirc , which causes diminution, is used to ensure that the dragme are made proportionally to the diminished semibreve".

¹¹⁷ Stone, "Writing rhythm in late medieval Italy", pp. 133-138.

¹¹⁸ The transmission in Pn 6771 omits all mensuration signs, although the special note forms are still present.

¹¹⁰ Stone, "Writing rhythm in late medieval Italy", p. 136.

9:8.¹²⁰ It seems highly unlikely that proportions are reckoned on the *minima* level in this piece especially in the case of the sign \odot . A 3:2 proportion at the *minima* level would imply a binary division of the *brevis*, whereas a ternary division can only produce the correct realisation of this work. Interestingly, the last proportion (\odot) refers not to the preceding mensuration in the same voice but to the lower voices, which are executing a 4:3 proportion on [3,2] *dim* (signalled by \bigcirc). While the sign \bigcirc is not used in this work, the fact that there is a conceptual shift in the reckoning of proportions in augmented notation supports the hypothesis that \bigcirc operates at the *semibrevis* level in [3,2] *dim*.

Several instances of other mensuration signs without *canones* or written instructions to explain them are found in the *ars subtilior* repertoire and beyond.¹²¹ Besides the use of cut signs, such as ϕ (which will be discussed in the following chapter), all occurrences can be explained as means of indicating a *sesquialtera* proportion in a vertical or horizontal relation to *tempus imperfectum*. Two works occur in CH 564 in which a 3:2 proportion is intended in reference to the preceding mensuration. Matheus de Sancto Johanne's *Je chante ung chant* (f. 16r; *vid.* Vol. II, App. A, No. 55) employs O with red notes in the S and Ct to indicate the singing of a [3,2] in the original mensuration [2,2] or *sesquialtera* proportion at the *semibrevis.*¹²² Figure 5.4 illustrates its use in a portion of the S voice this work.

¹²⁰ In proportione epitriti ad semicirculum cantetur, ad circulum cum duobus punctis in proportione emiolij et ad circulum cum tribus in proportione epogdoy. (At the semicircle it is sung in the proportion 4:3, at the circle with two dots in the proportion 3:2, and at the circle with three dots in the proportion 9:8.) The meaning of these Ancient Greek terms is as such: Hemiolios ($\eta\mu$ io λ io ς) = one-and-a-half, i.e. sesquialtera, epitritos ($\dot{\epsilon}\pi$ itpito ς) = one-and-a-third, i.e. sesquitercia, and epogdoos ($\dot{\epsilon}\pi$ i δ δοο ς) = one-and-one-eighth, i.e. sesquioctava. The use of latinised Ancient Greek terms to denote proportions rather than Latin ones is unusual, and suggests that the composer (or scribe) is seeking to cultivate an air of learnedness. *Cf.* Günther, 'Der Gebrauch des *Tempus perfectum diminutum* in der Handschrift Chantilly', p. 294.

¹²¹ Additional works in the fifteenth century employing cumulative proportional mensuration signs without written instructions indicating their meaning are discussed in Chapter 7.

¹²² Busse Berger notes similar uses of mensuration signs in the Old Hall MS, in *Mensuration and Proportion Signs*, p. 172.



Figure 5.4: Refrain of Je chante ung chant by Matheus de Sancto Johannes, CH 564, f. 16r (S only).

However, the unique transmission in CH 564 is not without problems. The first instance of \bigcirc at the end of the first section appears to have been miswritten as \bigcirc . The passage in question can be correctly read in \bigcirc *dim. per terciam partem* (=[3,2] diminished by a third) without any changes to the preserved notation, although strict isorhythm between the first and second section of this rondeau is lost.

In the anonymous Ung lion say (CH 564, f. 28v; Vol. II, App. A, No. 56), one finds the mensuration signs \mathbb{C} , \mathbb{C} and \mathbb{O} which have the respective meanings of a [2,2], [2,3] and [3,2] division of the *brevis*. However, a correct reading of this work is only achieved if \mathbb{C} = $=\mathbb{C}$, that is with a *sesquitercia* proportion between the *minime* of \mathbb{C} and the *minime* of \mathbb{C} .¹²³ There is a possibility that \mathbb{O} may also signify a 3:2 proportion at the *semibrevis* level, although this cannot be determined from the work itself as [3,2] occurs solely in the context of the *outrepasse* simultaneously in all voices (although it is not indicated in the T). The only other mensuration sign used in this [3,2] section is \mathbb{O} , but it is used in close conjunction with full red note forms to achieve a 2:1 proportion, that is 4:3 x 3:2. It appears that this meaning is limited by the full red note forms since the immediately subsequent passage in void red note forms (indicating 4:3 at the *minima* level) renders the previous mensuration sign redundant.

In MOe5.24, two instances of the proportional use of mensuration signs indicating a *sesquialtera* proportion at the *minima* level occur without any accompanying written cues. These are Matheus de Perusio's *Dame que i'aym sour toutes de ma enfance* (ff. 10v-11r; *vid.* Vol. II, App. A, No. 57) and his ars subtilior essay Le greygnour bien (ff. 31v-32r; *vid.* Vol. II,

¹²³ Busse Berger notes an identical use of mensuration signs in a *Gloria* by Damett in the Old Hall MS, ff. 33v-34r, in *loc. cit.*

App. A, No. 41). In the first work, the S commences in [2,3] (indicated by \mathfrak{S}). The Ct and T are at first notated in [2,2] (not indicated by any signs), but at this point with *minima* equivalence with the S. It is only when the mensuration sign O occurs in the S (BB. 28-38, 51-56, 71ff), that a 3:2 proportional relationship organised as [3,2] is required at the *minima* level both in a vertical relation with C in the lower voices and in a horizontal relation with the preceding [2,3] mensuration in the S. In the second work, the S and T commence in [2,2] (not indicated by mensuration signs), while the Ct commences in the mensuration [2,3] (indicated by \mathfrak{S}), but with implied *brevis* equivalence between these mensurations and a *sesquialtera* proportion at the *minima* level. However, when the same proportion is required in the horizontal aspect in the S and T, full red *sesquialtera* coloration at the *minima* level is used. It is perhaps erroneous to consider the occurrence of \Im in the Ct, thereby achieving a *sesquitercia* relationship at the *minima* level, to operate as a sign indicating *proportio dupla* with respect to [2,2] in the S and T of this latter work.¹²⁴

The two aforementioned uses of proportional mensuration signs (\bigcirc and *sesquialtera* \bigcirc/\bigcirc to \bigcirc) may represent effective solutions within the French mensural system to notate Italian concepts embodied in the relation of *octonaria* and *senaria perfecta divisiones* described at the beginning of this chapter. Although works such as *Le greygnour bien* involve further complications of diminution and augmentation coloration, a certain simplicity which originally resided in the Italian system is emulated to result in a notational representation which in its first instance avoids issues of special note forms and at least one additional level of proportionality. Thus, by merely using black note forms in the Ct of *Le greygnour bien*, a *sesquialtera* proportion results relative to the outer voices (S and T). Additional coloration in the Ct produces, relative to the outer voices, a *sesquialtera* proportion at the *semibrevis* level through red coloration and a *proportio dupla* at the *minima* level through void red coloration. Had coloration or special note shapes been employed from the outset of the Ct, the notation of this passage in coloration would have been further complicated.¹²⁵

¹²⁴ Busse Berger cites this as one of two examples of \bigcirc used to indicate *proportio dupla* in *Mensuration and Proportion Signs*, p. 410, fn. 21. She likewise seriously errs by suggesting that the same sign indicates *proportio dupla* in Philipoctus' *Par le grant senz d'Adriane*. As discussed above, major prolation exists intrinsically within the *imperfect tempus* indicated by the sign \bigcirc .

¹²⁵ The lengths to which the anonymous composer(s) go(es) to notate a proportio dupla in En Albion de fluns and De tous les moys can be cited as support for this claim (see above on \supset).

The last group of works to be discussed finds the meaning of mensuration signs indicated by a canon. Table 5.5 summarises the proportional meanings imparted to various mensuration signs by verbal instructions. An examination of this table shows that there is little uniformity in the use of mensuration signs and their meaning, although some logic resides in their use in *Le sault perilleux* (Vol. II, App. A, No. 54), *Ne Geneive* (Vol. II, App. A, No. 59) and *Une dame requis* (Vol. II, App. A, No. 60) in that all signs communicate an appropriate division of time but within the premise of *brevis* equivalence. It is noteworthy, however, that the canon in only one work is couched in terms of *brevis* equivalence, namely *Une dame requis*. Aside from *Le sault perilleux* for reasons discussed above, proportions are appropriately considered in terms of their relation to the *minima*.

Work, composer and source	I.V.	Unit	3:2	4:3	9:8	9:4	Other	Remarks
<i>Je prens d'amour noriture</i> Anon. Tn J.II.9, 154r.	[2,3]	Min				(9)	\odot = 2:3, \bigcirc = 10:3, \bigcirc = 5:2	Also uses other Indo-Arabic numerals
<i>Le sault perilleux</i> Galiot CH 564, 37r.	[3,2] dim.	Sbr	···	С	٢			9:8 relative to C = 4:3.
<i>Puisque ame sui doulcement</i> Anon. Tn J.II.9, 107r.	[2,3]	Min	С	•			• = 2:1, C = 7:3;	Also uses Indo- Arabic numerals
Puisque je sui fumeur Jehan Hasprois CH 564, 34v.	[3,3]	Min		0			$\bigcirc + \text{ red} = 2:1.$	
<i>Se doit il plus en biaux</i> Jo. de Altecuria, CH 564, 15v.	[2,3]	Min		(C)	·			<i>Vid.</i> Vol. II, App. A, No. 58.
Ne Geneive Io. Cuvelier CH 564, 41v.	[2,2]	Min	Э			•	(2, 3)	Also uses Indo- Arabic numerals
Se de mon mal ddivæ pæstenent ¹²⁷ Anon. Tn J.II.9, 124v-125r.	[2,3]	Min	(3)	(4)			$\mathbf{O} = 4:1.$	
<i>Sur toute fleur¹²⁸</i> Anon. Tn J.II.9, 137r.	[2,3]	Min	(3)	(4)		(9)	\odot = 2:3, \odot = 3:4, \odot = 7:3, \odot = 10:3	Also uses other Indo-Arabic numerals
<i>Une dame requis</i> Frater Johannes de Janua MOe5.24, 12r.	[2,2]	Sbr	© = 0			Ο		

Table 5.5: Meaning of mensuration signs attached to a canon in works in the ars subtilior style.¹²⁶

¹²⁶ Key to additional abbreviations: I.V. = initial mensuration (*integer valor*), Unit = durational level to which proportions apply.

¹²⁷ For a transnotation of this work, vid. Hoppin, The Cypriot-French Repertory of the Manuscript Torino, Biblioteca Nazionale, J.II.9, 1963, vol. III, No. 67.

¹²⁸ For a transnotation of this work, vid. Hoppin, The Cypriot-French Repertory of the Manuscript Torino, Biblioteca Nazionale, J.II.9, vol. III, No. 97.

Several works in Table 5.5 share the same concerns as the previous group for notating *sesquialtera* and *sesquitercia*. However, while the occurrence of 9:8 and 9:4 proportions may also be (hypothetically) found in one form or another of Italian notation, several proportions (especially those found in Tn J.II.9) demonstrate a radical shift in proportional conceptualisation which marks a break between the older traditions of Italian notation and the mature style of the *ars subtilior*.

In terms of the appearance of the actual signs shown in Table 5.5, there is little departure from the formal types established in *musica mensurabilis* theory and practice. In several instances, the more archaic forms of mensuration signs are requisitioned by the scribe or composer, and recast into their new role by the accompanying set of written instructions. The recasting of more current mensuration signs bespeaks of a mental agility required in interpreting those works. The performer must effectively disengage from the more common meaning of those signs and bear in mind their immediate meaning in relation to the work being performed. The effect of this repositioning of mental signposts asks several questions which cannot be addressed here. The first concerns their effect on the process of committing a work to memory. The second consists of the ability of the performer to correctly grasp proportional terms, both Latin and Greek-derived, and apply them in the polyphonic context. Even without answers to these questions, we begin to grasp the degree of proficiency required by this repertoire. At the same time, this challenge to the learned singer may have been one in which he/she delighted.

5.6. Conclusions

This chapter has taken the opportunity of demonstrating the development and diversity of mensuration signs preserved in theoretical and musical sources from the fourteenth and early fifteenth centuries. In it, I asked the reader to put aside any misconceptions which might be grounded in a monolithic view of notational practice in this period, which tends to subsume all forms under the descriptive titles of either French or Italian notation. In doing so, I believe I have identified instances of notational practices that are significantly different from the generally received view. In particular, I have identified the practice of using of *tempus* signs without extrinsically indicating prolation, and situated this practice within a relatively confined geographic and temporal space. That Matheus de Sancto Johanne, Philipoctus de Caserta and Trebor appear to have resorted to this particular notational practice in the early 1380s possibly raises more questions than it

provides answers. Is this a form of notational intertextuality or is it simply a school of notation shared by collegiate composers? The case of Philipoctus de Caserta and Matheus de Sancto Johanne is further complicated by the similarity of the textual content of their political chansons, although there are possibly enough differences in their texts to suggest that Matheus' interests in political affairs was somewhat different from those of Philipoctus. Matheus' *Inclite flos* emphasises the role of the French and Spanish kingdoms in their support for the Schismatic party at Avignon, while Philipoctus' *Par le grant senz d'Adriane* appears more concerned with the politics of the composer's own region of origin, the Kingdom of Naples. There may be enough in this observation to suggest that neither composer had the benefit of personally knowing the other,¹²⁹ and that the issue of notational intertextuality should be given further consideration in future research.

This chapter has also seen the continuation of a thematic thread that runs throughout this present study by examining the role of scribes in shaping and reshaping the notation in the sources of music we have before us today. The adoption and modification of French notational principles by Italian scribes discussed in the previous chapter in relation to special note shapes is also evident in the use of mensuration signs. The Italian scribe who copied the mid-fourteenth century works of Gherardello and Lorenzo da Firenze into Pn 568 provides the most resonant image of this confluence of musical cultures through the medium of its symbolic representation. This scribe, like so many of the scribes discussed in this chapter, often sought to apply more recent notational processes to older repertoires. The saliency of this observation resides in the evidence it furnishes that a repertoire, sometimes more than fifty years old, remained in circulation and in the minds of the musicians and scribes who were charged with its care. This bespeaks of a tacit acknowledgment on the behalf of the scribe concerning the continuing value of various repertoires.

Finally, looking forward to the next chapter which discusses the use of one further extrinsic device in the musical notation of the *ars subtilior*, I ask the reader to recall the distinction I made at the beginning of Chapter 4 of this present study between intrinsic and extrinsic modes of signification. The present chapter has served to reinforce this distinction by illustrating the behaviour of the initial type of extrinsic signification in relation to the

¹²⁹ On textual citations shared by Philipoctus' *En remirant* and Matheus' *Sans vous ne puis*, *vid*. Plumley 'Ciconia's *Sus une fontayne* and the legacy of Philipoctus de Caserta'; Dulong, "La ballade polyphonique à la fin du moyen âge", pp. 76-81. Plumley uses this relationship to strengthen the view expressed in her 'Citation and allusion in the late *ars nova*' that Philipoctus and Matheus "were active in the same mileau". I broadly

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division of time in musical notation of the fourteenth century. I have shown that between these two modes of signification, there are forms of notation where extrinsic signification is only partially still reliant on intrinsic elements to communicate the required rhythmic divisions and durations in mensural music. The shift, which occurred during the second half of the fourteenth and first decades of the fifteenth centuries, from intrinsic to extrinsic indications of musical time is a gradual one. In light of the repertoire preserved by this symbol-system, it is a development ultimately tied to stylistic demands for more complex temporal relationships in the rich polyphony of the *ars subtilior*.

agree with this view, but I observe also that the breadth of this *cultural* mileau requires (and is undergoing *pace* Plumley and Stone) further definition.