

First Question for the Written Portion of the Candidacy Examination
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“From Chant to Clausula to Motet: GO”

The development of the motet is one of the most important landmarks in the history of medieval music in the Latin West. At the same time, it is one of the least well presented topics in most books dealing with the history of Western music.

Please start to correct this situation by writing a history of the development of the motet through the thirteenth century, illustrating the various stages, styles and types of music, where possible, on the basis of the syllable GO. Track this music from its liturgical home in plainchant through its various early polyphonic manifestations to its ultimate destination as a multi-voice, perhaps even multi-lingual motet in different styles. If there is a developmental stage or a type of piece that is not represented in your repertoire, then choose a piece based on another syllable to represent that particular stage or type. Please show the relationship between contemporaneous theory and the motet, and be sure to cite pertinent secondary literature as appropriate.

Introduction

A period during the early centuries of the last millenium known as the *Ars Antiqua* witnessed crucial developments in the history of Western music, including the advent of polyphony, or multi-part music, and the evolution of accurate rhythmic notation. These two developments went hand in hand, since precise depiction of rhythmic values is a prerequisite for coordinating more than one voice part. Although the first stirrings of polyphony began in the 12th century and earlier, and although continued rhythmic refinements occurred during the 14th century and later, it can be argued that the 13th century was the critical century for the development of both polyphony and rhythm. The pre-eminent genre during this century was the motet, a texted composition for two or more voices founded on a liturgical *cantus firmus*. Thus the study of the motet through the 13th century provides valuable insight into this critical period in music history. This essay will focus on a particular motet “family tree” from among a forest of such that cropped up at that time. The root of the family tree discussed here is the syllable GO.

From chant . . .

Ultimately, GO can be traced back to a particular Gregorian plainchant, *Benedicta V. Virgo Dei Genitrix* (see Example 1). It finds its liturgical home in one of the first-class Marian feasts, namely the Assumption of the Blessed Virgin Mary which falls on August 15. (The Assumption is Mary’s analog to Christ’s Ascension.) It is also sung at the Nativity of the Blessed Virgin Mary, which falls on September

8. The chant is a Gradual, one of the items of the Proper of the Mass. A lengthy melisma falls on the syllable “-go” in the phrase “Virgo Dei Genitrix,” which occurs at the beginning of the Verse portion of the chant. Within the pitch content of this melisma lies the seeds for future generations of compositions.

(. . . to organum . . .)

While this is not the place to linger over the fine points of the terminology and history of organum, a few summary remarks are necessary for an understanding of the place occupied by organum in the lines of growth being traced here. By about the middle of the 12th century, the term organum came to be used in two discrete senses. In its functional and generic sense, organum referred to a polyphonic setting of plainchant, intended to be sung at the appropriate place in the liturgy instead of the monophonic chant itself. Such settings were most commonly for two voices (one being the tenor, singing the notes of the original chant, the other being the *duplum*, a newly-composed second voice), although a smaller number of three- and four-voice organa were also composed. In its narrower sense, organum referred to a *style* of relating the voices to each other, particularly with regard to rhythm. In this organal style, sometimes referred to as *organum purum*, the tenor notes were sustained for an imprecise period of time, for as long as it took the upper voice to deliver its corresponding melisma in measured rhythm, or florid style, or

some combination of the two.¹ Discant style stood in contrast to this; both the tenor and the added voice moved according to definite rhythmic values, with about two to four notes occurring in the added voice for every note in the tenor. Ironically, no significant collections of organum (generic sense) in *organum purum* style have been preserved; the more progressive discant style infiltrated and took over the world of organum by about the beginning of the 13th century.

During the last few decades of the 12th century, a musician known as Leonin, working at the Notre Dame cathedral in Paris, undertook to compose a cycle of organa to cover the entire liturgical year. The collection came to be known as the *Magnus liber organi* or “Great Book of Organum.” It has not been preserved in its original form, so it is impossible to be certain of the style or styles Leonin used, but it is known that the *Magnus liber organi* underwent a period of modernization in which the discant style came to predominate, and that Leonin’s successor, Perotin, was a key agent in this process. The revised versions of the *Magnus liber organi* which have been preserved date from the 13th century. The musical tradition engendered by Leonin and his successors has come to be known as the Notre Dame school.

Example 2 shows a piece of two-part organum which is a setting of most of the Verse portion of the chant shown in Example 1 (*Virgo Dei Genitrix*, etc.) It displays a mixture of discant and copula sections. Copula is a sort of intermediate

¹Atkinson, Charles M., “Franco of Cologne on the Rhythm of Organum Purum,” *Early Music History* 9 (1989): 1-26.

style between organum purum and discant, in that the tenor holds out a long note (as in organum purum) while the added voice moves in precise modal rhythm (as in discant).²

Modal rhythm (and modal notation) developed as a distillation and codification of the diverse measured rhythms of musical practice. It entailed various repetitive patterns of short and long notes (i. e., breves and longs) called “rhythmic modes.” The earliest extant musical treatise to treat of modal rhythm was the anonymous *Discanto positio vulgaris*, written around 1230 but describing the practice of the previous few decades.³ The author of this treatise offered various insights for the interpretation of notational signs, but stopped short of an actual enumeration of the rhythmic modes. Johannes of Garlandia remedied the situation in his *De musica mensurabili* of about 1240 - 1260 (again, summarizing prior practice).⁴ Johannes described and demonstrated the six rhythmic modes (and certain variations on them) with musical examples cited from contemporaneous musical literature.

Modal notation uses the ligatures and conventions of the square notation developed for use with plainchant. While the modal system seems very

² Yudkin, Jeremy, “The *Copula* according to Johannes de Garlandia,” *Musica disciplina* 34 (1980): 67-84.

³Knapp, Janet, trans., “Two 13th Century Treatises on Modal Rhythm and the Discant: *Discanto positio vulgaris* and *De musica libellus* (Anonymous VII),” *Journal of Music Theory* 6 (1962): 201-215.

⁴McKinnon, James, ed., “Johannes de Garlandia: From *De musica mensurabili*” in *Strunk’s Source Readings in Music History, rev. ed., vol 2: The Early Christian Period and the Latin Middle Ages* (New York: W. W. Norton & Company, 1998).

constraining from the modern point of view, it was not quite the straightjacket that it at first appears to be. Modifications such as the *plica* (“folded note,” usually effecting a passing tone) could be used to embellish the basic modal patterns, and change of mode within a passage was allowable. Many times the actual notation broke from the pattern of ligatures prescribed by one of the modes. Perhaps the best way to understand modal rhythm is as a descriptive theoretical framework to help musicians make sense of the musical literature they faced, rather than as a set of prescriptive rules for composers.

In Example 2, the third figure over “-go” in the tenor begins a series of three-note ligatures followed by a rest. According to Johannes of Garlandia, this pattern signals a variation of the fifth mode and thus should be interpreted as L L L (L rest) etc. The corresponding duplum phrase begins with a three-note ligature and continues with a series of two-note ligatures, signalling the first mode ([L B L] [B L] [B L] etc.), followed by a long note and a rest. The net effect of these modal patterns is a sort of propulsive lilting rhythm and short, symmetrical phrasing.

... to **clausula** ...

The term *clausula* has meant different things at different times, but the meaning that is most important here concerns a genre of musical composition of the Notre Dame school. Initially, a *clausula* was simply a detached discant-style section of organum. Apparently these sections derived their name from the fact that, of necessity, only a portion, or a clause, of the organum text could come along

with the detached section. In some cases, the “clause” was a single syllable—the syllable GO from *Virgo Dei Genitrix* is an excellent example. Clausulas were created to increase flexibility in performance in the liturgical setting. Perhaps after the novelty of organum wore off, organal settings of entire texts began to seem cumbersome and tedious. If a choice bit of the organum were preserved as a clausula, the clausula could be slotted in to the appropriate place in the otherwise monophonically-delivered chant, and thus move things along more quickly.

Example 3 shows the GO music excerpted from the organum shown in Example 2. It seems that this excerpt was deemed to be the most desirable portion, and indeed it is attractive. The tenor moves along in its predictable pattern according to the second rule of the fifth mode, running through the pitch content of the original Gregorian melisma twice. The duplum (upper voice) presents its simple, short phrases with few deviations from the first-mode pattern. A comparison of this duplum with that of the organum from whence it came reveals only minor variations of the type most likely introduced by scribal accident or initiative.

The foregoing discussion has assumed that the music shown in Example 3 was first composed in the context of the organum (Example 2), then detached and written down separately. It is also possible, however, that the reverse is true. It may be that case that the clausula was independently composed first, and then incorporated into the organum in one of the revisions of the *Magnus liber organi*, replacing the music that was already there for GO. This would help to explain why

the pitch content of the GO melisma is repeated in the organum, an unlikely procedure in an original organum setting. Regardless of the direction of the relationship between these two excerpts, however, it is clear that clausulas in discant style (or simply discant clausulas as they are often called) represent a genre that was further along than organum style (narrow sense) both chronologically and stylistically.

The rhythmic qualities of the GO music reflect a larger trend. Passages like this were known as *clausul sive puncti* meaning clausulas without points, i.e., individually-written notes.⁵ All the notes in the GO clausula of Example 3 are ligated, i. e., bound together, with the exception of the phrase-ending longs. *Puncti* are a feature of the tenors of old-fashioned *organum purum* or copula sections, whereas *clausul sive puncti* implies the progressive discant style in thoroughly modal rhythm.

The clausula of Example 3 is by no means the only GO clausula to be found. Rather, it was often the case that several clausulas on the same syllable or short phrase were composed and collected in one convenient place in a manuscript. (The clausula of Example 3 appears right after another GO clausula, which has the same tenor but a different duplum.) Any of the clausulas could be chosen to be fitted in to the appropriate place in the chant; for this reason modern scholars have coined the term “substitute clausulas” to describe them.

Additional GO clausulas can be found in various manuscripts. Since the

⁵Flotzinger, Rudolf, “Clausula,” *New Grove Dictionary of Music and Musicians*, 2nd ed., ed. Stanley Sadie (New York: Grove, 2001), vol 6, pp. 2-3.

purpose here is to trace the origins of the motet, only those clausulas that gave rise to motets will be presented. Two other GO clausulas fit this description. Example 4 presents a clausula that is quite similar to the clausula of Example 3. As expected, the tenor is identical. The duplum shows, however, that this is a different composition. The differing melodic phrases are somewhat more active due to the greater number of ornamentations or elaborations on the basic modal pattern.

As discussed above, initially clausulas were simply sections of organum lifted out of context. Soon enough, however, clausulas became independent compositions in their own right. “These clausulas thus became the most important area for experimentation in the compositional techniques of the day, especially for the development of discant.”⁶ This can clearly be seen in the last GO clausula to be discussed, shown in Example 5. As in the other clausulas, the tenor runs through the Gregorian melisma twice with a repeated pattern of three longs and a long rest, but in this case the last ligature has been omitted. It is not clear whether or not this is a mistake. As it stands, the final note of the last ligature (D) has to be sustained beyond its proper measure while the upper voices finish, but it works compositionally, with acceptable consonances occurring at the beginnings of perfections (“on the beat” in modern terminology). However, the expected last ligature (F G A) would fit neatly into place and would also work well compositionally. Given the authority accorded to chant tenors, it seems more likely that the last ligature was accidentally rather than intentionally omitted.

⁶Flotzinger, “Clausula,” 3.

At first glance, this piece does not seem to be terribly adventurous. The upper voices are closely coordinated and move along in modal rhythm, with some variety introduced mostly by means of plicas. But the very fact that the piece contains three voice parts is an innovation. The *organa tripla* and *quadrupla* of Perotin would seem to negate this statement at first, but recall that Perotin worked during the revisional phase of the *Magnus liber organi* and as far as we know Leonin, the first composer of that great collection, wrote only *organa dupla*. The “organum” of Perotin should be understood in the broad sense, since he probably wrote mostly in discant style. This clausula is probably roughly contemporaneous with Perotin’s three- and four-voice works, suggesting that the addition of a third voice at this time was still a somewhat novel procedure.

At any rate, generally speaking, the clausula as a genre provided a forum for compositional innovation, so it is not surprising that it spawned the next generation of compositional types, namely the motets.

. . . to motet.

Each of the three clausulas discussed above gave rise to several derivative motets. In order to keep track of them all and to keep in mind the relationships among them, it will be helpful from this point on to refer to Figure 1, “The GO Family Tree.” This diagram should not be taken as showing exact stemmatic filiation; rather, it shows a more general “stylistic filiation.”

The motet did not immediately replace the clausula; rather, both forms were

cultivated along parallel lines for about the first half of the 13th century. Clausula composition appears to have dropped off after about 1250, at which time the motet became the pre-eminent musical form bar none.

The earliest motets were simply troped clausulas—that is, clausulas with texts added to them. The territory of the tenor remained inviolable; the new text was laid under the duplum. The majority of clausulas, and hence the majority of early motets, were for two voices only. Three-voice clausulas did exist, as seen above with Example 5. The two upper voices of that clausula are closely coordinated rhythmically, but in many other three-voice clausulas the phrases of the upper voices overlap, which would make it nearly impossible to lay the same text under them both without major revision to the music. Thus, as a general rule, composers jettisoned the triplum when adapting a three-voice clausula as a motet.

When a duplum was given a text, it might be called “motelli” (perhaps to contrast “small words” with the big (long) word(s) of the tenor), or later “motetus.”⁷ The motet as a genre derives its name from this etymology. The term duplum, however, remained in use as well; in the rest of this essay, duplum and motetus will be used interchangeably to refer to the second voice of a motet.

Clausulas with patterned tenors were especially likely to be rendered as motets. A patterned tenor lent structure and cohesion to the composition. In all the clausulas and motets cited in this essay, the GO melisma was simply repeated once in identical form (for a total of two iterations). Many other Gregorian melismas,

⁷Sanders, Ernest H. / Lefferts, Peter M., “Motet: Middle Ages: France, Ars Antiqua,” *The New Grove Dictionary of Music and Musicians*, 2nd ed., ed. Stanley Sadie (New York: Grove, 2001).

however, experienced rhythmic redistributions of pitch content during the repeat(s). This procedure precursored the isorhythmic motets of the 14th century.

In the earliest phase of adding texts to clausulas to form motets, the texts were generally Latin. Not long afterward, however, added vernacular (French) texts began to appear. The Latin motets, usually with liturgical subject matter, may have retained the substitute function of their clausula models for a time, but soon they came to be viewed as independent compositions in their own right. The texts of the French motets, by comparison, usually entailed topics such as courtly love, and thus would never have been appropriate in a liturgical setting (not to mention use of the vernacular itself).

The texts were not simply assigned at random; rather, they often maintained a certain “troping quality.” The most obvious manifestation of this quality occurs when the tenor label is cited outright (often within the first few words) or when a rhyme or assonance with the tenor label can be found.⁸ By way of demonstration, two Latin motets which appear to be tropes of the clausula in Example 3 are presented as Examples 6 and 7 respectively (please refer to Figure 1). The *O* in *O Maria mater pia* offers the same vowel sound as the tenor’s GO (assonance). Similarly, *Virgo* in *Virgo gracie plena* recalls the word from which GO itself was drawn (citation). Beyond these superficial verbal or phonetic similarities, both texts reflect the subject matter of the original Gregorian chant (the attributes and qualities

⁸Tischler, Hans, Preface to *The Montpellier Codex, Part I: Critical Commentary, Fascicles 1 and 2*, Recent Researches in the Music of the Middle Ages and Early Renaissance, vols. II and III (Madison, Wis.: A-R Editions, Inc., 1978), xxxvii.

of the Virgin Mary in this case). In sum, the new texts were designed to resonate aesthetically with the old texts.

The troping quality of French texts is rather different. Phonetic connections with the tenor label sometimes took the form of puns or clever word play. With regard to resonating subject matter, if any thought was given to it at all, the French text may have been intended as ironic juxtaposition rather than respectful reference. The goals of the sacred and secular, coming together in the voices of a French motet, were not always wholly incompatible, however. It is not far-fetched to imagine, for instance, that the object of affections in a courtly lyric might gain much through an implicit comparison with the Virgin Mary.

All the single motets in Group I (deriving from the clausula in Example 3; please refer to Figure 1) are *contrafacta* (i. e., same music, different words). Example 8 (*Deduisant m'aloie ier mein*) shows how a French text could simply replace a Latin one. French texts in particular contributed to the secularization of the genre as a whole. “Evidently, motets became mostly pieces of clerical and aristocratic chamber music, whose patterned Gregorian tenors are likely to have been performed instrumentally.”⁹

French single motets and later French double motets often incorporated “refrains”—borrowed phrases from secular song literature. The borrowing may have been of the poetry alone, or sometimes the tune associated with the particular words made its way into the motet in some more or less modified form. Tracing

⁹Sanders / Lefferts, “Motet.”

these refrain borrowings has been one of the preoccupations of modern motet scholarship,¹⁰ but many refrains have likely evaded the scholarly radar, perhaps because the references are too subtle or because the sources of the borrowed material have been lost. Thus the full extent of this intertextuality may never be known.

While the majority of the early motets (from the first half of the 13th century) were set for two voices, as mentioned earlier, a particular motet subgenre, namely the conductus motet (a modern term), forms an important exception. The conductus genre itself was a form that coincided with the composition of organa and clausulas. It featured three voices, as did organa and clausulas on occasion, but the most important distinguishing features of the conductus were an originally composed tenor (i. e., not a citation of a portion of Gregorian chant), a single text for all three voices, and near-homorhythm in all voices. Conductus motets resembled conductus in that two nearly homorhythmic upper voices delivered the same text, but differed in that the tenor, as with clausulas and other types of motet, was drawn from a pre-existing liturgical melody and thus pursued different rhythms. Generally, conductus motets were derived not by troping a three-part clausula or by adapting a conductus, as one might imagine, but by adding a triplum to an existing motet.¹¹ Example 9 provides a demonstration of this procedure. Another voice has been added atop the two voices of the motet *Virgo plena graciae* (Example 7); the

¹⁰Friedrich Gennrich was at the forefront with his *Bibliographisches Verzeichnis der französischen Refrains des 12. und 13. Jahrhunderts* (Langen bei Frankfurt, 1964).

¹¹Knapp, Janet, "Conductus," *The New Grove Dictionary of Music and Musicians*, 2nd ed., ed. Stanley Sadie (New York: Grove, 2001).

close rhythmic coordination of the duplum and triplum allows both to deliver the same text. (The text is laid under the duplum only.) In a similar manner, the motet *O Maria mater pia* (Example 6) also spawned a conductus motet (listed in Figure 1 but not given as a separate example). Logically, just as the original motets are *contrafacta*, so too are the derivative conductus motets.

Early motets reflected the style of their parent clausulas. Many motets from this phase are preserved in modal notation (all the motets in Group I, for example), though it is difficult to see the resemblance to the ligature patterns found in the clausulas. The addition of text under the notes required the ligatures to be separated into individual note shapes or *simplices* in order to maintain even an approximate note-syllable coordination. Thus these motets *cum litterae* (“with letters,” i. e., words) proved to be problematic for modal notation, which surely was a main impetus for the development of more flexible notation systems (to be discussed below). In the present day, the rhythm of modal motets with *simplices* is nearly impossible to decipher without reference to a parent clausula—and it seems likely that the same situation obtained in the 13th century. A performance would have required reference to two sources, one being the motet itself to coordinate words and pitches, and the other being the parent clausula to coordinate pitches and rhythms. In fact, some “clausulas” appear to have been written down specifically to store a motet in a rhythmically intelligible manner.¹²

A satisfactory response to the notational challenge posed by texted motets

¹²Sanders / Lefferts, “Motet.”

ultimately came with the formulation of true mensural notation by Franco of Cologne, but a sort of intermediate notational type intervened, alternatively referred to as early mensural, pre-mensural, or pre-Franconian notation. The main shortfall of modal notation was its context-dependency, meaning that the rhythmic interpretation was dependent on the context provided by patterns of ligatures. Motets *cum litterae* destroyed that context and hence the certainty of rhythmic interpretation. Pre-mensural notation went only a certain distance toward correcting this problem. It reduced context dependency to some degree by giving certain note shapes independent meanings, but ambiguities persisted.

Examples 10 and 11 (from Group II) show two concordant sources for a French motet, *Li pluseurs se plaignent d'amors*. The first source records the work in separated modal notation, whereas the second source records the work in pre-mensural notation. Clear indications of this fact in the second source include the intentional use of stems and the occasional mensural-style ligature, while figures such as plicated notes and *coniuncturae* remind one of its modal heritage.

The motets in Group II possess an interesting feature which distinguishes them from the other groups. The appearance of the tenor is not much different (patterned tenors in many cases continued to be recorded and interpreted according to modal rhythm) but in order for the voice parts to coordinate, the tenor must proceed according “the second rule of the first mode” as Johannes of Garlandia defined it. The resultant pattern is the comparatively lively [L B L B-rest] etc. As a general rule, the tenors of French motets in particular increased in liveliness over

the course of the 13th century.

Group III demonstrates an interesting facet of motet history. In a process that testifies to the secularization of the motet, particularly French-texted ones, many motets were incorporated into the monophonic secular song literature, and in so doing lost their tenors.¹³ Example 12 shows a French motet of Group III, *Por conforter mon corage*, with GO intact. (The last ligature of GO, missing from the clausula and from a derivative Latin motet, *Crescens incredulitas*, is present here, suggesting that the scribe was working from another source or that he recognized the error and corrected it.) Example 13 shows a fairly close contrafactum of the motet's duplum in another manuscript, but the tenor is nowhere to be found. In this so-called Manuscrit du Roi, the motet duplum has found a new identity—it is nestled among a group of pieces listed as “chansons de trouvères” and is attributed to a certain Ernous li Vielle. Two additional verses of text, unique to this version of the piece, follow the music.

Motet composition took a decisive turn around mid-century. Whereas previously the vogue had been motets for two voices (which conventionally are called simply motets, but which are referred to in this essay as “single motets” for clarity), now new motet types with additional voices begin to appear. Single motets continued to be composed until the end of the century at least, but they vied with so-called “double motets” in popularity. The majority of double motets were created by adding a triplum (third voice) to an existing tenor-duplum pair.

¹³Sanders / Lefferts, “Motet.”

Along with this new focus on three-voice works came a new attitude to the relationships among voice parts. The dupla of single motets (and of the clausulas from which they were derived) tended to follow fairly closely the phrase structure and cadence points suggested by the tenor. The phrase structure of the added tripla of double motets, however, tended to contrast with that of the tenor-duplum pair. Thus it was not uncommon, for example, for the triplum to be mid-phrase while the duplum and/or tenor were cadencing and resting.

In contrast to the earlier conductus motets, the newly-added voice of a double motet brought with it a new text as well. This helps to account for the contrasting phrase structure mentioned above, since finding or composing a text with matching versification and rhyme scheme was evidently not a high priority. Indeed, it seems that textual and melodic contrasts were consciously cultivated. The double motets testified to a new aesthetic of joining together disparate entities.

With regard to the language of double motets, both French and Latin ones were created. French doubles outnumbered Latin doubles by about four to one, however, with the Latin doubles striking a slightly more conservative pose. Latin doubles tended to be somewhat simpler in style and to maintain the trope-like relationship with the tenor. The tripla of French doubles, by comparison, often paid little regard to the tenor text.¹⁴

Example 14a presents the first page of a typical French double motet, *Dieus qui porroit / En grant dolour / APTATUR*. (While the GO family tree produced many

¹⁴Sanders / Lefferts, "Motet."

fruits during the first half of the 13th century, it seems, according to the surviving sources, to have died off about mid-century. APTATUR will provide, with one exception, the necessary examples from this point on. The construction of an APTATUR family tree will not be attempted.) A quick perusal of a transcription of the piece (Example 14b) shows that while the motetus cadences frequently with the tenor, the phrases of the new triplum usually overlap those of the motetus and/or tenor. Similarly, while the rhymes of the first several lines of the motetus (*dolour, paour, tristour, etc.*) are a phonetic reflection of “ur” in APTATUR, the triplum presents no obvious trope-like reference to the tenor. This state of affairs reflects the circumstances under which this motet came into being, namely the addition of a third voice with a new text to an older single motet.

The first page of a typical Latin double motet, *Amor vincens omnia / Marie preconio devotio / APTATUR*, is shown in Example 15a. In contrast to the French double motet just discussed, the phrases of the new triplum are much more closely coordinated with those of the tenor and motetus (please refer to Example 15b for a transcription). In addition, the reverential tone and subject matter of the triplum text parallels that of the motetus text, namely devotion to the Virgin Mary. Both these features are in keeping with the more conservative style of Latin double motets.

If popularity is an indication of success, then history must judge the creation of triple motets in the 13th century to be a more or less failed experiment. A small number of French triple motets (i. e., three different French texts over a tenor), and

an even smaller number of Latin triple motets, can be found. Apparently four-part writing was an idea whose time had not fully come. (One may think of organum quadruplum in this regard, but it, too, led a marginal existence.) A possible explanation for the “dubious contrapuntal success”¹⁵ of four-part writing may simply have been the lack of an adequate theoretical harmonic framework at that time. Another explanation might be the fact that four diverse melodies all at once (not to mention three completely different texts) simply overwhelm the listener: present-day perceptual research has shown that the maximum number of auditory streams that a person can keep track of for any substantial period of time is three.¹⁶ The reader is invited to judge for himself with Example 15 (15a is a facsimile, 15b a transcription). Actually, the various voice parts are not as divergent as one might expect (melodically speaking), which may just go to support the point about auditory streams. (In other words, pains are taken to unify the voices in such a way as to reduce the nominal number of voice parts (4) to a more manageable actual number.)

Another marginal phenomenon of the latter 13th century was the mixed motet, also called the bilingual or macaronic motet. As such terms imply, these motets mixed languages within one composition. (The tenor does not factor in here, since it would have been more like a “vocalise” than a texted part if sung, and since no words at all would have been heard if it were performed instrumentally.) The most common mixed format was a double motet with Latin motetus and

¹⁵Sanders / Lefferts, “Motet.”

¹⁶Huron, David, “Tone and Voice: A Derivation of the Rules of Voice-leading from Perceptual Principles,” *Music Perception* (forthcoming).

French triplum. Occasionally, though, a piece was arranged with French motetus and Latin triplum, as seen in Example 16. Very small numbers of mixed triple motets may also be found, with various distributions of Latin and French among the voices. Mixed motets take the aesthetic of diversification to its extreme, which may help explain why they are so often cited in standard music history textbooks of the present day despite the fact that they do not inhabit the mainstream of motet composition.

The development of true mensural notation stands as a crowning achievement of the 13th century. The stylistic features of the latter half of the century, as discussed above, would likely not have been possible without it. The practice began appearing around mid-century, and theory caught up with it about thirty years later. Franco of Cologne is credited with codifying mid-century practice in his *Ars cantus mensurabilis* of about 1280.¹⁷ A system of largely context-independent notation emerges from this treatise. The rhythmic value of particular notes still depends, at a local level, on the context of immediately surrounding notes, but each sequence of note shapes has a specific, unambiguous interpretation. In addition to individual note shapes, Franco also codified a system of ligatures, conferring upon them the properties of “propriety” and “perfection,” referring to the beginnings and ends of ligatures, respectively. Ligatures whose appearance conformed to that of traditional chant neumes were said to have both propriety and

¹⁷McKinnon, James, ed., “Franco of Cologne: *Ars cantus mensurabilis*” in *Strunk’s Source Readings in Music History, rev. ed., vol 2: The Early Christian Period and the Latin Middle Ages* (New York: W. W. Norton & Company, 1998).

perfection, while certain modifications could render them without propriety and perfection, or in some cases with “opposite propriety.” Each of these situations had a specific rhythmic interpretation.

Examples 14, 15, and 17 are fine examples of true mensural or “Franconian” notation. (Example 16 holds out with the pre-mensural system.) As mentioned earlier, the rhythmic flexibility afforded by this notation parallels certain stylistic changes in the later motet. For this reason, later motets in mensural notation are sometimes referred to as Franconian motets, though this should not be taken to mean a genre separate from the later double motets and so on.

During the last two decades of the 13th century, approximately, a notable refinement to the mensural system appeared. Some motets, among them a few attributed to a certain Petrus de Cruce or Pierre de la Croix, began to feature longer strings of short note values (semibreves) than had appeared before. Under Franco’s system, the maximum number of semibreves that could be fit into the time of a breve was three. Petrus, however, crammed four to seven semibreves within the same span of time. To indicate how such strings of semibreves were to be grouped, he placed small “dots of perfection” in appropriate places among the semibreves. The triplum of Example 18a, one of the motets attributable to Petrus, demonstrates this practice.

A disagreement as to the rhythmic interpretation of such strings of semibreves appears in the theory of a few decades after the fact. Jacobus of Liège, in his treatise *Speculum musicae*, written around 1320, indicates that the semibreves are

to be evenly distributed across the time of the breve.¹⁸ (In modern terms, this would create a quadruplet, quintuplet, etc. as the case may be. Incidentally, it was Jacobus who identified for posterity Petrus de Cruce as the innovator in this regard.) However, a treatise known as the *Ars nova* of Philippe de Vitry, also written around 1320, offers a different solution: some of the initial semibreves must be halved, as many as are necessary maintain a perfection (i. e., a triple division of the time of the breve). Example 18b presents a partial transcription, without text, of Petrus' motet, providing parallel interpretations of the triplum according to both Philippe and Jacobus.¹⁹

So-called Petronian motets (those making use of Petrus' rhythmic innovations) generally feature a stratification of rhythmic activity in the various voices. The triplum bears a lengthy text, declaimed rapidly in fairly short note values, while the duplum bears a shorter text and moves more slowly. The tenor moves in the slow, deliberate patterns familiar from so many earlier motets.

The motet continued to develop in the 14th century throughout a period known as the *Ars nova* and beyond, but let this be enough of motets.

¹⁸Plantinga, Leon, trans., "Philippe de Vitry's *Ars Nova*: a Translation," *Journal of Music Theory* 5 (1961): 205-221.

¹⁹This transcription was submitted previously for course credit.

Manuscript sigla

- F Firenze, Biblioteca Medicea Laurenziana, Pluteus 29.1
Mo Montpellier, Faculté de Médecine, H 196
R Paris, Bibliothèque nationale, f. fr. 844 (Manuscrit du Roi)
W₁ Wolfenbüttel, Herzog August Bibliothek, 677 (Helmstedt 628)
W₂ Wolfenbüttel, Herzog August Bibliothek, 1206 (Helmstedt 1099)

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