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## VARIORUM COLLECTED STUDIES SERIES

French and English
Polyphony of the 13th and 14th Centuries

# Ernest H. Sanders 

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Style and Notation

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## CONTENTS

Preface ..... vii-x
Acknowledgements ..... xi
I Tonal Aspects of 13th-Century English Polyphony ..... 19-34
Acta Musicologica 37. Basel, 1965
II Cantilena and Discant in 14th-Century English Polyphony ..... 7-52
Musica Disciplina 19. Rome, 1965
III The Question of Perotin's Oeuvre and Dates ..... 241-249
Festschrift Walter Wiora. Kassel, 1967
IV The Medieval Motet ..... 497-573
Gattungen der Musik in Einzeldarstellungen: Gedenkschrift Leo Schrade. Bern, 1973
V The Medieval Hocket in Practice and Theory ..... 246-256
The Musical Quarterly 60. New York, 1974
VI The Early Motets of Philippe de Vitry ..... 24-45
Journal of the American Musicological Society 28, no. 1. Richmond, 1975
VII English Polyphony in the Morgan Library Manuscript ..... 172-176
Music \& Letters 61. Oxford, 1980
VIII Consonance and Rhythm in the Organum of the 12th and 13th Centuries ..... 264-286
Journal of the American Musicological Society 33, no. 2. Richmond, 1980
IX Sine littera and cum littera in Medieval Polyphony ..... 215-231
Music and Civilization: Essays in Honor of Paul Henry Lang, ed. Edmond Strainchamps, Maria R. Maniates, and Christopher Hatch. New York, 1984
X Style and Technique in Datable Polyphonic Notre-Dame Conductus ..... 505-530
Gordon Athol Anderson (1929-1981): $\ln$ Memoriam (Musicological Studies 59). Henryville, PA, 1984
XI Conductus and Modal Rhythm ..... 439-469
Journal of the American Musicological Society 38, no. 3. Richmond, 1985
XII The Earliest Phases of Measured Polyphony ..... 41-58
Music Theory and the Exploration of the Past, ed. Christopher Hatch and David W. Bernstein. Chicago, 1993
XIII Rithmus ..... 415-440
Essays on Medieval Music in Honor of David G. Hughes, ed. Graeme M. Boone. Cambridge, Mass, 1995
Additions and Corrections ..... 1-5
Index of Names and Texts ..... 1-3
Index of Manuscripts ..... 1-2

## PREFACE

Several of the articles in this volume may be seen as reflecting the principle of 'developing variation', as they concern themselves with aspects of rhythm and its notation in polyphonic music from c. 1175 to the late 13th century. The earliest of these essays addressing that range of issues ('Duple Rhythm and Alternate Third Mode in the 13th Century', Journal of the American Musicological Society 15 [1962], 249-91) is excluded, because its treatment of portions of Petrus Le Viser's treatise dealing with duple rhythm is defective. ${ }^{1}$ (On the whole, the larger portion of the article retains its validity.) 'Peripheral Polyphony of the 13th Century', ibid. 17 (1964), 261-87, is also excluded, since some of its conclusions are problematic; ${ }^{2}$ research still needs to be undertaken regarding the number and location of 13th-century scriptoria, apart from Paris, in which manuscripts of polyphony may have been compiled.

An article first printed in German in the Archiv für Musikwissenschaft 24 (1967), 24-53, was not included here, because an English version was just published under the title 'The Effect of Medieval English Polyphony upon the Development of Continental Cantus-Firmus Techniques and Tonal Structure'. ${ }^{3}$ The topics addressed there in not quite systematic enough a fashion can be summarized as follows:
(1) From the melodic continuity of chant (originating as intensified prose) to the instrumentally determined and controlled isolation of its individual pitches, providing the basis for vertical (contrapuntal) cells and their horizontal connection.
(2) Medieval discant setting of modal tenor (cantus firmus) as lowest voice, with 2-1 cadences, as against the harmonic tonality of the major-minor system with its V-1 cadences; the octave-leap cadence, the double-octave

[^0]cadence etc. of the early 15th century; the views of Besseler and Lowinsky regarding the evolution of harmonic tonality and the importance of the various cultivations of the $\mathrm{V}-1$ cadence; broad definition of tonality for which V-1 cadences are not essential; tonal polyphonic cantilenae composed in 14th-century England; tonally motivated manipulation of tenors in English cantus-firmus polyphony of the 13 th and early 14th centuries.
(3) Placement of the cantus firmus in the middle voice in 14th-century English settings and the support quality of the lowest voice; migrant and paraphrased cantus firmi.
(4) English triadic sonority and Italian 'bourdon' (Besseler); their relevance to harmonic tonality.
(5) The potential universality of (instrumentally generated) tonality; England's priority.

At the time the topics and thoughts summarized above were articulated as part of this writer's dissertation, Heinrich Besseler's book Bourdon und Fauxbourdon: Studien zum Ursprung der niederländischen Musik (Leipzig: Breitkopf \& Härtel, 1950) was only about a dozen years old. Its main points have been severely criticized by several authors and none more so than the view of the so-called octave-leap and double-octave cadences (contratenor) around and after 1400 as deepening the available contrapuntal space (twovoice framework), thus enabling composers to undergird and undercut the traditional tenor cadence ( $2-1$ ), in which the contratenor moves from the sharp fourth to the fifth. ${ }^{4}$ The view of the novel cadences as variants of the older cadence, which remains essentially unaffected, seems to me untenable, because it denies the new cadences any significant effect on contemporaneous listeners (including the composers). ${ }^{5}$ But their ears could hardly have been insensitive to the more fundamental definition of the tonal space produced by the new cadential sonorities that added support and depth to the traditional 2-1 cadence. Kevin N. Moll in his admirably thorough and fair examination of the various 20 th-century views of this issue concludes that when 'the voice added to the two-part framework [tenor and discant] comes to occupy the lowermost tone of a cadential sonority . . . it will inevitably be experienced as a sonorous foundation . . .' He describes this as a 'fundamental acoustical phenomenon' and asserts that 'it is the referential pitch that will be heard as a sonorous foundation at main points of stability, and this sequence of tonal anchors (along with the intervallic quality of their sonorous

[^1]superstructures) is a crucial component of a given work's overall sounding effect'. ${ }^{6}$ It may not be redundant to restate here the remark of Anonymous XIb that 'the contratenor is called tenor insofar as it is lower than the tenor'; he is not the only commentator to have made this observation. ${ }^{7}$ Why allow the fear of necessarily hindsight future-vision to deny an important turn in contrapuntal practice its due recognition? It can certainly be seen as equal in importance to composers' choice of the subdominant key - in preference to the traditional dominant - as the key for slow movements in the second half of the the 18 th century or to the introduction of the breve into discant tenors in the early years of the 13th.

Finally a few words about a topic that has a far shorter history. In his pioneering work, published in 1989, Craig Wright concluded from the total absence of polyphonic sources from Notre-Dame inventories and lists of the time 'that much of the organum, discant, and counterpoint . . . was performed without the assistance of notation'. 8 Anna Maria Busse Berger takes this issue further; after mentioning 'the absence of any polyphonic manuscripts from the lists of choir books, the inventories of the library, the treasury, the bishop's chapel or chapter house of Notre Dame' she deduces from this the likelihood 'that much of this music before 1230 was transmitted orally', ${ }^{9}$ orality of transmission being an issue of great importance in her approach to this repertoire. It may well be that even highly challenging compositions, such as the organa tripla and quadrupla, were performed from memory (an assumption not quite so stunning when one considers the superb training of medieval singers or, for that matter, of modern soloists), but surely not without prior arduous study and rehearsal from a notated model, which presented problems very different from and more complex than the memorization and performance of chant.

Berger's apparent denial of the essentiality of written notation for the conception and performance of the organa said by Anonymous 4 to have been composed by Leoninus seems untenable (though admittedly the recurrence of formulae aids retention) and Rebecca A. Baltzer has referred to multiple 'strong, but indirect' evidence in support of her contention that the notion of Notre Dame having 'owned no books of Parisian liturgical polyphony [of the time of Leoninus and Perotinus] is inconceivable . . . ${ }^{10}$ And indeed, Anonymous IV, as is well known, refers to the organiste enhancing the

[^2]divine service in their collections (‘ . . . organiste divinum officium multiplicantes in suis voluminibus . . .'). ${ }^{11}$ As in 13th-century England, the lives of such books evidently did not exceed their use, in contrast to the more lasting validity of service books. But fortunately the intertwining of the clerical and aristocratic spheres in France caused the production and preservation of presentation manuscript collections (such as F).

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ERNEST H. SANDERS
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[^3]
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## PUBLISHER'S NOTE

The articles in this volume, as in all others in the Variorum Collected Studies Series, have not been given a new, continuous pagination. In order to avoid confusion, and to facilitate their use where these same studies have been referred to elsewhere, the original pagination has been maintained wherever possible.

Each article has been given a Roman number in order of appearance, as listed in the Contents. This number is repeated on each page and is quoted in the index entries.

Corrections noted in the Additions and Corrections have been marked by an asterisk in the margin corresponding to the relevant text to be amended.

## Tonal Aspects of 13 th-Century English Polyphony

The prominence of Stimmtausch and rondellus technique in English medieval music is a well-known fact. ${ }^{1}$ In the preserved English repertoire of the second half of the thirteenth century most of the rondelli and of the conducti with Stimmtausch or rondellus sections are in the F mode; ${ }^{2}$ so ist the round WF No. $21 .{ }^{3}$ Four rondelli (WF Nos. 31 and 94, and MS University of Chicago, 654 app., Nos. 5 and 9) ${ }^{4}$ and one conductus (WF No. 69) are in Dorian or Mixolydian, while WF No. 25 is too fragmentary to permit determination of its mode. In almost every case the combined effect of the three voices is the continuous reinforcement of the finalis (tonic). ${ }^{5}$ The simplest procedure merely alternates tonic and supertonic (e. g. WF Nos. 89 and 90); more expansive compositions also involve the mediant, subdominant, and dominant (e.g. WF No. 107, and the Kyrie trope in form of a rondellus in MS Oxford, Bodleian Library, Corpus Christi College, 497, fol. 2 [5], ${ }^{6}$ as well as the subtonic in composi-

[^4]tions in the D or G modes. ${ }^{7}$ The technique seems especially apparent in the pieces in F-major (F-Ionian) ${ }^{8}$ and F-Lydian. Since only the upper two voices engage in interchange in the conducti with Stimmtausch sections (e.g. WF Nos. 89, 90, 92), the tenor necessarily has a repetitive design.

The repertoire under discussion also contains a considerable number of stylistically similar pieces, but with an untexted tenor and differing texts or text arrangements in the two upper voices. As a rule, these motets with Stimmtausch do not use a cantus firmus, but are, like the conducti and rondelli, freely invented. ${ }^{9}$ The lowest voice is generally designated as "pes," exceptionally-e. g. in the palimpsest WF No. 41-as "tenor." The following compositions belong to this category: WF Nos. 12, 16, 17, 18 ( $=66$ ), 23 (?), 41; ${ }^{10}$ and MS Princeton, Garrett 119, Fragment A, No. 2. ${ }^{11}$ All these motets are in the F mode and are harmonically similar to the conducti and rondelli described above. WF Nos. 16 and 41 and the motet in the Princeton MS are somewhat more adventurous, as they also utilize the submediant chord. The motets as well as the three conducti in F with Stimmtausch sections are all in alternate third (and fourth) mode, ${ }^{12}$ and, except in Nos. 23 and 92, the length of those tenor periods that are repeated does not exceed the equivalent of sixteen longae (i.e. eight ${ }^{8}$-measures). ${ }^{13}$ None of the motets contains a cantus firmus.

It is appropriate to include the Summer Canon in this group, especially in view of its alternate text in Latin. To be sure, Harrison has identified the lower part of the pes with "the first five notes of Regina caeli, the special Mary-antiphon of the Easter season." ${ }^{14}$ But as engaging as is this interpretation of the piece, it may

[^5]possibly be unwarranted. Taken by themselves, these notes form quite a faceless pentad; their all-purpose neutrality becomes more obvious when the Summer Canon is compared with the other English Stimmtausch motets in F. Furthermore, WF No. 12 is a St.-Catherine motet, whose tenor begins with the same five notes as the pes of the Summer Canon. The notes correspond exactly to the beginning of Virgo flagellatur, the processional responsory for St. Catherine; ${ }^{15}$ yet, it seems hazardous to designate this as a cantus-firmus motet, since the pes of WF No. 17 begins with the very same sequence of notes. This motet, however, concerns neither the BVM nor St. Catherine. ${ }^{16}$ Finally, it should be pointed out that true motets (i.e. polyphonic compositions with texted upper parts over a Gregorian melisma) are quite rare in this repertoire and that no other instances of a Marian antiphon (partial or entire) serving as a motet tenor have come to light in 13 th-century English music. ${ }^{17}$

Actually, all these pedes present a basic musical idea in ever new guises. ${ }^{18}$ In fact, with the exception of WF No. 12, each individual pes conveys to a varying extent the idea of variation because of the successively different ways in which the centripetal character of the tonic chord-the or the -is elaborated. The pes of WF No. 17 may serve as an example:

than the Latin poem. But the former appears immediately under the music and the two pedes have only English text, which is related to the English words of the canon. Perhaps the addition of Latin was due to the influence of the Franciscans, who were fully established in England by the time the Summer Canon was written down; cf. Bukofzer, Popular and Secular Music in England, in: New Oxford History of Music, vol. III, ed. Dom A. Hughes and Gerald Abraham (London 1960), p. 118. ${ }^{15}$ Processionale Monasticum (Solesmes 1893), p. 214; Variae Preces (Solesmes 1901), p. 251.
${ }^{16}$ Nor, for that matter, the death of Archbishop Peccham, contrary to what can be inferred from Dittmer's commentary (The Worcester Fragments, p. 38).
${ }^{17}$ Levy's suggestion (New Material, pp. 229 f.) that the tenor of the Princeton motet may have been adapted from a liturgical source should likewise be questioned. In such cases there often remains some uncertainty if the tenors are freely composed or cantus firmi. But whether a pes was at the same time a more or less exact citation of a cantus firmus must have been a matter of less-or, at any rate, different-import to English medieval composers than to their French colleagues or, for that matter, to modern scholarship. Both the frequent use of the term "pes" and the nearly complete identity of pedes for motets concerning different liturgical occasions are telling factors.
${ }^{18}$ Unquestionably, the missing pes of $\mathrm{No} .18(=66)$ must have had a similar design. Its first period may tentatively be reconstructed as follows:


The effect is that of variations on a tonic ostinato, with the supertonic, because of its cadential function, holding a place of structural importance second only to that of the tonic. ${ }^{19}$ What gives these pieces their English sound is, in addition to the frequency of the major mode, the stress on the chords of tonic and supertonic, ${ }^{20}$ their emphasis on triads and ${ }^{6}$-chords, ${ }^{21}$ with the latter functioning most prominently as penultimate chords at cadence points, and a predilection for trochaic rhythms and regular periodicity. ${ }^{22}$ The phrase endings emphasize the various scale degrees involved and relate them to one another and to the tonic. The relative prominence of triads-sometimes several in succession-and restriction of the two-voice framework ${ }^{23}$ to the space of an octave are characteristic of early compositions ${ }^{24}$ (e. g. the conducti WF Nos. 69 and 99, the canon WF No. 21, the motets WF Nos. 12, 18 ( $==66$ ), and the Summer Canon). ${ }^{25}$ One result is that the two pieces for more than three voices have a full triad with the tonic note doubled at the octave for their final chord. ${ }^{26}$

All these facets of the West English medieval style are quintessentially embodied in the Summer Canon. It is important in this connection to distinguish clearly be-

[^6]tween canon and round. It was Handschin's opinion that both types represent the idea of endless flow and that therefore the distinction between them is "not so fundamental," ${ }^{27}$ while Bukofzer described canon as "a continuous form without repeats, rondellus a sectional form with sectional repeats." ${ }^{28}$ Actually, Handschin's view should be opposed in more unequivocal terms than those inherent in Bukofzer's opinion; the distinction, which is indeed fundamental, is not so much one between continuity and sectionality as between a basic attitude of purposiveness realized through dynamic pursuit of an end (canon, aptly called fuga originally), and equipoise realized through static circularity (round). Canonic procedure reaches typically Gothic extremes in the fourteenth-century chace, since the temporal distance between the voices often robs the listener of the chance to perceive the diagonal relationship in such canons; ${ }^{29}$ this circumstance is a radical example of the essential difference between canon and round (or Stimmtausch), i. e. between (1) imitative counterpoint and (2) chordal homogeneity achieved with a melody whose built-in harmonic potential must be realized through imitative projection.

Thus, the notion that the Summer Canon betrays French influence ${ }^{30}$ is quite unfounded; the Continental model cited by Besseler ${ }^{31}$ turns out to be a motet on a tenor favored in England, ${ }^{32}$ which pokes fun at English and Scottish guzzlers of good ale. This explains the circumstance, so untypical of a French motet, ${ }^{\text {s3 }}$ that it contains a considerable amount of Stimintausch. ${ }^{34}$ It likewise makes no sense to call the chace Talent m'est pris "the nearest French counterpart to the English 'Sumer is icumen in' "; ${ }^{35}$ the two pieces demonstrate clearly the difference between their respective species. ${ }^{36}$ Round, Stimmtausch, and rondellus all give constant harmonic emphasis to the tonic, with other scaledegrees functioning harmonically in subordinate relationships. Obviously, these techniques evolve readily and almost automatically in a poly-

[^7]phonic style whose tonally oriented chords and melodies are restricted to a two-voice framework of an octave.

Bukofzer has pointed out that in the compositions of the West English school "pes often designates a motet that is not based on a Gregorian melody ..." ${ }^{37}$ In fact, of 19 motets ${ }^{38}$ in which this term occurs (WF Nos. 6, 7, 11, 12, 16, 17, 27, 30, 53, 70-76; MS Oxford, B.L., Corpus Christi College, 497, No. 9; MS Oxford, B.L., Mus. c. 60 , No. 5; and the Summer Canon) only three (WF Nos. 27, 70, and 72) definitely have a Gregorian cantus firmus. ${ }^{39}$ More or less complete compositions in which the lowest part may have been designated as pes are WF Nos. $18(=66)$, 23, 32, 36; and Fragment A, No. 2 of the Princeton manuscript. The term pes is lacking in three motets (WF Nos. 10, 15 and 65) where it would seem to be appropriate, while the palimpsests Nos. 41 and 67 label their lowest voice "tenor," a more modern designation in England. Seven of these pieces are the motets with Stimmtausch that were mentioned previously. Almost all the pedes of the freely composed motets without Stimmentausch also exhibit features of repetition, some with some without; as might be expected, the harmonic idiom is basically the same, and the majority of the motets are in the F-mode. Only in two (WF Nos. 6 and 75) are the initial and final chords not identical. ${ }^{40}$

The further evolution of this type of composition is demonstrated by some of the pieces preserved in the fragmentary MS Cambridge, Gonville \& Caius College, $512 / 543$ of the early fourteenth century, which contains several freely composed motets based on ostinato tenors. All of them exploit the principle of sectional variation in so consistent a manner as to suggest their designation as "variation motets."

[^8]The tenor of No. $1^{41}$ consists of an ouvert and a clos phrase, which are rhythmically also nearly identical; ${ }^{42}$ the length and construction of each phrase is indicated by the formula $3(3 \mathrm{~L})$. The two upper voices punctuate the three statements of the tenor with musical refrains over the last five notes of the tenor's second phrase. Otherwise, there are, apart from the tenor, no correspondences between the sections; on the contrary, in sections 2 and 3, respectively, both upper voices progressively increase their use of Petronian semibreves so that the last section is the liveliest of the three; in addition, the duplum and triplum rise progressively. However, within each section,there is almost complete correspondence between the two halves, the second being a slightly variational restatement of the first. The final section of the motet is a particularly suitable example: ${ }^{43}$


[^9]
**MS: ed.
A composition that with its alternation of supertonic and tonic even more strongly evokes the characteristic harmonic idiom of the Worcester fragments is No. 4, ${ }^{44}$ which combines variation technique and refrain design. The 19 statements of the six-note tenor of the motet are grouped in nine pairs and one single statement, which altogether contain four rhythmic variants. Each pair produces two nearly identical phrases with ouvert and clos endings in the upper voices. The second pair acts as a refrain section, since it recurs regularly with text and music unchanged. As in No. 1 of this manuscript, the rhythm of the upper voices becomes more lively toward the end of the piece. The form is:
\[

$$
\begin{aligned}
& \text { Upper voices: } \alpha a^{\prime} \quad \beta \beta^{\prime} \quad \gamma \gamma^{\prime} \quad \beta \beta^{\prime} \delta \delta^{\prime} \quad \beta \beta^{\prime} \varepsilon \varepsilon \quad \beta \beta^{\prime} \zeta \quad \beta \beta^{\prime}
\end{aligned}
$$
\]

$$
\begin{aligned}
& \begin{array}{llllllllll}
\mathrm{A}_{1} & \mathrm{~B} & \mathrm{~A}_{2} & \mathrm{~B} & \mathrm{C} & \mathrm{~B} & \mathrm{D}_{1} & \mathrm{~B} & \mathrm{D}_{2} & \mathrm{~B}
\end{array}
\end{aligned}
$$

(Since $d$ is longer than the other versions, the upper voices are subdivided into two three-measure phrases, with the clos ending of the second following the ouvert cadence of the first.) As the verses of the duplum and triplum have masculine and feminine endings, respectively, the triplum phrases always end one breve after the downbeat endings of the duplum phrases; by way of compensation, the phrases of the

[^10]duplum begin on the upbeat before each triplum phrase. The ostinato principle, phrase pattern, refrain form, dance character, ${ }^{45}$ and even, to some extent, the cadential effect combine to make the piece - a prayer to the Holy Ghost-sound like the fourteenth-century version of a villanella. ${ }^{46}$ (Music-Example see the following pages)

Two freely composed Worcester motets of ca. 1300 should be mentioned in this context, the well-known WF No. 67 (on Thomas of Canterbury and Thomas of Dover) ${ }^{47}$ and WF No. 53. ${ }^{48}$ The latter presents a well-ordered design of some complexity, approaching rondo form. ${ }^{49}$

Most of the compositions cited so far demonstrate the English medieval predilection for the major mode. In addition, they reveal the composers' constant awareness of the centripetal force of the tonic; nearly all freely composed pieces, whatever their mode, begin and end with the tonic chord. The harmonic style of the cantusfirmus ${ }^{50}$ compositions in the Worcester repertoire is in many cases similar to that of the freely composed pieces. Very few of them can be called motets in the French sense, since as a rule they do not restrict the tenor to a Gregorian melisma, or the upper voices to an exclusively syllabic style. ${ }^{51}$ The texts of the upper parts are tropically ${ }^{52}$

[^11]Ex. 4



*For the first text line the $M S$ has: $\lambda d \lambda d \lambda \rho_{d}$
related to the words of the cantus firmus, which are more or less carefully placed under the notes of the tenor, usually in red ink. The pieces are, in effect, tropically elaborated discant settings of Gregorian plain songs.

For this group of compositions Dittmer has introduced a variety of terms (tropic motet, organum, English organum), which Apfel, in turn, has criticized as not clear. ${ }^{58}$ Actually, the term "organum" is little more appropriate than "motet," since it implies the organal styles of Leoninus and Perotinus, which the Worcester repertoire - with two or three exceptions - does not display. ${ }^{54}$ The term that describes the situation best is the German Choralbearbeitung, coined by Handschin; "chant setting" will be used here as a workable English equivalent.

The following works are English chant settings of the second half of the thirteenth century: ${ }^{55}$ WF Nos. 9, 4, 33, 42, 35, 1, 2, 29, 58-63, 77, 19, 45, 46, 49-52, 54-57, A, C, E, G, 81; MS Oxford, B.L., Mus. c. 60, No. 4; WF Nos. 28, 26, and 14. Of these just over half of the total (all the items listed beginning with WF No. 19, except the item from the Oxford manuscript) represent the responsorial chant categories selected for polyphonic treatment by the Notre-Dame school. The Alleluias preponderate extraordinarily: there are 16 Alleluias, two settings of the same Gradual (WF Nos. 26 and 14), and one responsory (No. G). The remainder, like the contents of the Winchester Troper and of the eleventh fascicle of MS W1, reflects considerable liturgical inclusiveness: one Introit antiphon (No. 9), one Offertory (No. 4), a Reguиm prosula of the Gloria (No. 33), a prosa for a Vespers responsory (No. 42), ${ }^{56}$ part of a Tract (No. 35), three Kyries (Nos. 1, 2, 29), one Spiritus et alme trope of the Gloria (MS Mus. c. 60, No. 4), six Sanctus (Nos. 58-62 and 77), and a trope of the Sursum corda (No. 63). ${ }^{57}$

It is to be expected that many cantus-firmus settings would necessarily lack the palpable tonal cohesiveness of the free compositions, that, in other words, the tonic

[^12]could not serve as the inevitable agent of tonal unification, when the cantus firmus itself was not a tonal unit. Yet, as early as 1928 that remarkable scholar and musician, Jacques Handschin, had pointed out that the composer of the Sanctus setting WF No. 60, probably for tonal reasons, had prefaced the beginning of the cantus firmus with a non-Gregorian phrase. ${ }^{58}$ The result of this manipulation is that the first note of the tenor is not $b$ (the first note of the chant), but $f$, which is its last note as well. ${ }^{59}$ The fragmentary Alleluia settings in the WF and in MS Rawlinson c 400* furnish a number of corroborative instances of similar tampering with cantus firmi. The setting of the respond of WF No. 52 is altogether unusual, since, probably for tonal reasons, it concludes with the beginning of the jubilus. Since the solo portion of the verse of the cantus firmus in Nos. 51 and A ends on a note other than the tonic, short melismas, whose polyphonic settings conclude the compositions, are added to the tenor in both cases in order to lead it back to the tonic note. ${ }^{60}$ That a short melisma was added to the end of the cantus firmus of No. 55 is probably due to the composer's desire to end the piece with a $2-1$ cadence in the tenor. ${ }^{61}$ Especially fascinating is the case of No. 19, the only one of the extant Alleluia settings in the Worcester repertoire that is in the Deuterus. The lengthy concluding tropebeginning in m. 169 of Dittmer's transcription-effectively robs the chant of its modal character, as it concludes the piece in the more familiar $D$ mode, in which it began. ${ }^{62}$ The list of Alleluia settings in MS London, B.M., Harley 978, ${ }^{63}$ contains only two more Alleluias in the E mode; but in this case-both use the same melodythe solo portion of the verse ends on $D$, anyway, so that no tampering with the chant may have been considered necessary. ${ }^{64}$ Perhaps the most conclusive case is that of No. G, a setting of one of the responsories for Christmas. ${ }^{65}$ Since the solo portion of the

[^13]verse ends on the supertonic, the functional minimum of two cadential notes is added to the tenor to conclude the piece with tonal propriety. Outside the Worcester school there is the case of No. 3 of MS Cambridge, Trinity College, O. 2. 1, ${ }^{68}$ which is the only known conductus motet (almost completely preserved) with a fourth, textless, part; a final note is added to its tenor. ${ }^{67}$

WF No. 81 (Alleluia: Nativitas) provides another instructive example of alterations of a cantus firmus. In the first place, two notes (supertonic and tonic) were added to the end of the incipit of the respond, in all probability so as to provide a 2-1 cadence. Secondly, the setting of the verse, which it was medieval practice to begin with the supertonic, ${ }^{68}$ starts with a long sustained $g$ (the tonic) in the tenor. The beginning of the composition, however, apparently corresponds with the chant model, which starts on the subtonium. Thus, this tenor is the only one of the Worcester compositions discussed so far in which the initial and final notes are not identical. It is pertinent, however, to point to the almost perversely obstinate insistence of the composer on the tonic note throughout the respond section of the work. ${ }^{69}$

Five of the cited compositions belong to a cycle of Alleluia settings, many of which are lost; none are completely preserved. ${ }^{70} \mathrm{All}$ these works, regardless of whether the cantus firmus is tampered with, constitute the most compelling examples of the composer's design to effect a compromise between the cantus firmus and a tonally

[^14]organized polyphonic composition built around it. The Alleluia settings are, as a rule, quadripartite pieces. It is with sections 2 and 4, respectively, that the settings of respond and verse begin. Each is preceded by a free section of varying length. Section 1 is in effect a trope to the first syllable Al- of the Alleluia. In the extant pieces it invariably involves Stimmtausch or rondellus technique. The short codas of the first sections clearly reveal their structural function as transitions, namely to provide a bridge from the end of the first section to the beginning of the setting of the respond. In fact, it seems that harmonic aspects-it may even not be too farfetched to refer to them as "modulatory" considerations-were to some extent responsible for these "prelude tropes." ${ }^{71}$ Not only do they establish the key, as it were, but whenever the respond of an Alleluia starts with a note other than the tonic (e. g. the above-mentioned WF No. 19), the coda to section 1 effects what might well be called a modulation.

Apart from the fact that sections 1 and 2 are linked harmonically, quite often the pes of the first section is plainly related to the incipit of the Gregorian respond, with which the tenor begins section 2. The impression of thematic unity is strengthened by the handling of the third section (the prelude trope for the verse), which, though usually shorter than section 1 , is in many cases thematically and stylistically related to it and often has similar modulatory functions. The evidence inescapably indicates that the design of the whole was governed by a strict harmonic concept of tonality.

Tonal unity, both in free compositions and in cantus-firmus settings, was thus a paramount concern of 13th-century English composers. In France, on the other hand, the matter of tonal unity was of less import, as is attested by the practice of writing clausulae and motets; many of the chant melismas on which they are based are not tonal units. Even a good many of the freely composed Continental pieces of the 13th and 14 th centuries lack a tonal center.

[^15]
## CANTILENA AND DISCANT IN 14TH-CENTURY ENGLISH POLYPHONY

The overwhelming majority of the numerous, though fragmentarily preserved sources of 14th-century English polyphony are notated in score; the text is written only under the lowest of the (unlabeled) voices, of which, rare exceptions apart, there are three.

Score notation is as old as polyphony. But with the rise of the motet, shortly after 1200, this type of notation had in continental Europe come to be used only in conducti and in similarly syllabic and monotextual compositions, such as sequences; by the beginning of the fourteenth century it had become quite rare. In England, however, it persisted "well into the fifteenth century". ${ }^{1}$ 13th-century pieces of this sort, most of which favor the third as consonance, are contained not only in the Worcester Fragments (Nos. 68, 69, 82, 87-92, ${ }^{2} 97-99,107,{ }^{3}$ and $109{ }^{4}$ ), but also in a few fragmentary manuscripts in the Bodleian Library (Mus. c. 60; Bodley 257;

[^16]Corpus Christi College 497 and 489), ${ }^{5}$ and in MS London, British Museum, Arundel 248, fol. $155 \mathrm{v} .{ }^{6}$ Of these, WF Nos. 82, 87-92, 107, 109, and the Kyrie trope on fol. 80v of MS Mus. c. 60 are apparently somewhat younger, as their two-voice framework is expanded to a twelfth or at least to a tenth ( $W F$ Nos. 90-92), ${ }^{7}$ while that of the others is restricted to an octave, a procedure typical of the main body of the WF. ${ }^{8}$ A corollary of this circumstance is the frequency of triads (in "root position") and, in some cases, of parallel triads in the older of these compositions.

This particular note-against-note style probably originated as an enrichment, by means of the addition of a third voice, of the non-ritual duet style for equal or nearly equal voices that apparently enjoyed some popularity in England around and before the middle of the thirteenth century. ${ }^{9}$ (Rather striking examples of such duets, in addition to those discussed by Bukofzer, are WF Nos. 100 and 101. The former is a freely composed setting of a Marian adaptation of the Alleluia: Justus germinabit that also occurs, with the proper cantus firmus, in the eleventh fascicle of MS $W_{1}$ ). ${ }^{10}$

[^17]However, such compositions were soon conceived in three voices from the outset, without the necessity of depending on a two-part foundation. ${ }^{11}$ To label such pieces "gymels" is surely unwarranted. The two chief proponents of the application of this term to repertoires that precede its first appearance (ca. 1430) by some two hundred years were Riemann ${ }^{12}$ and Bukofzer. ${ }^{13}$ However, whether one chooses to define "gymel" as two-part polyphony characterized by thirds and voice-crossings ${ }^{14}$ or as "duet for soloists," 15 there is no more reason to apply the term to medieval music than there would be in extending it to any number of sixteenth-century bicinia or Baroque chamber duets for equal voices. Any transfer of the term to other periods of music history necessarily distorts the styles to which its application is proposed. Thus, Bukofzer's contention that the parallel triads in early Worcester conducti and related compositions consist of a "gymel" duet with a clumsily added Triplum ${ }^{16}$ is open to challenge, since many of these pieces exhibit rondellus technique, in which the voices are necessarily conceived as equivalent, ${ }^{17}$ while in others thirds and voice crossings are by no means restricted to the two lower parts, and parallel fifths, though usually involving the top voice, also occur between the two lower voices. Rondellus technique may well have been the chief tool that integrated the three voices of what was originally an enriched duet style.

[^18]As the two-voice framework expanded toward the end of the thirteenth century, the contrapuntal field delimited by the framework came to be occupied more and more by the constellation often anachronistically referred to as a triad in first inversion. What happened was that the same dynamic evolutionary force that expanded the framework caused the relatively static combination of a perfect consonance - the fifth - with the imperfect consonance traditionally favored in England - the third - to be replaced by the more "progressive" ${ }_{3}^{6}$ combination, ${ }^{18}$ with its characteristic quality of flow and progression resulting from the absence of the perfect fifth. ${ }^{19}$ The free compositions are usually tonal units, as they had been in the earlier Worcester repertoire. ${ }^{20}$ In fact, the feeling for tonal cohesion was evidently developed enough to allow the following startling beginning, ${ }^{21}$ clearly a long harmonic upbeat (not unlike the variation

[^19]motet, MS Cambridge, Gonville \& Caius Coll. 512/543, No. $4^{22}$ ):
*Ex. $1{ }^{23}$




Museum 23 -, fol. 4 (H. K. Andrews and Thurston Dart, "Fourteenth-Century Polyphony . .", Music and Letters IXL (1958), pl. III). It is referred to as "Studley Royal Fragment" by Reaney in MGG XII, cols. 1637-38. While he assigns it to the second half of the century, it contains a concordance with MS Cambridge, Gonville \& Caius 334/727, which is "probably of the first half of the fourteenth century" according to Harrison (Music in Medieval Britain, p. 296). There seems to be no reason to change the dating from first third of the century, as originally given by Andrews and Dart, and subsequently supported by Denis Stevens in his postscript in the same issue of Music and Letters, pp. 148-153.
${ }^{22}$ Cf. Ex. 4 in Sanders, "Tonal Aspects...".
${ }^{23}$ The first structural subdivision (after "evanescit" and "penam nescit") indicated by Andrews and Dart (p.12) must be disregarded, since (1) the stanzas always end with a longa, not a breve, (2) all stanzas end with ${ }_{8}^{5}$ on C , (3) the curious intentional or inadvertent - misspelling of the word "processit" clearly shows what Andrews and Dart considered the second musical stanza to be the second half of the first; (4) capital letters do not appear in the text before the spot indicated by the double bar in Ex. 1.


It is of crucial importance that the so-called ${ }_{3}^{6}$-chord style originated in conducti, i.e. pieces the composition of which was not, as a rule, circumscribed by a cantus firmus. The great majority of apparently freely composed pieces in score notation favor the ${ }_{3}^{6}$-chord style, which, in addition to the mostly cadential ${ }_{5}^{8}$ 's, consists of ${ }_{3}^{6}$ chords, in chains of four, five, or - more rarely - up to roughly a dozen, ${ }^{24}$ and somewhat less prominently,

[^20]especially at first, of ${ }_{5}^{10}$ 's. ${ }^{25}$ The style necessarily profiles the top voice, where the melodic interest is generally concentrated. ${ }^{26}$ It is not surprising, therefore, to find that it is still cultivated in the 15 th-century carols, for which certain relationships to the conductus have been claimed. ${ }^{27}$

Nonetheless, Handschin's objections to the loose application of the term "conductus style" to compositions of the fourteenth and early fifteenth centuries ${ }^{28}$ ought not to be passed over lightly. ${ }^{29}$ In the first place, the conductus had died out before 1300; secondly, already some of the later Worcester compositions (without caudae!) that have commonly been referred to as conducti seem to carry the melody in the top voice, not in the tenor (e.g. WF Nos. 82 and 109). ${ }^{30}$ It is therefore not correct to say that "in the fifteenth century the conductus . . . turns into the carol," ${ }^{31}$ because it is the top voice of a carol that as a rule seems to carry the main melodic interest. Notwithstanding Handschin's and Besseler's equation of cantilena with the German term Diskantlied, i.e. a French medieval chanson, usually a ballade, with two accompanying instrumental parts, ${ }^{32}$ it seems most appropriate to refer to the repertoire under discussion as cantiones or cantilenae. Quite apart from the fact that the Latin counterparts to the carols

[^21]were in the fifteenth century known as cantilenae, there is sufficient theoretical evidence for the application of this term to much of the fourteenthcentury repertoire under discussion; ${ }^{33}$ it is certainly unnecessary to restrict its definition to compositions with French text. Moreover, the rondellus, whose features prove it to be a link between conductus and cantilena, is often associated with the latter in medieval treatises by English authors. ${ }^{34}$

While the feature of parallel ${ }_{3}^{6}$ chords has justly come to be known as the hallmark of the cantilena style, there are several pieces in which parallel ${ }_{5}^{10}$ 's balance or even overbalance the ${ }_{3}^{6}$ 's (see Ex. 1). Not infrequently, parallel triads appear, as for instance in two rather primitive specimens from the Old Hall manuscript (Nos. 2 and 3):

Ex. 2

${ }^{33}$ Cf. Handschin, "Conductus", MGG II, col. 1620; Analecta Hymnica, vol. XX, p. 5; also Richard L. Greene, The Early English Carols (Oxford, 1935), p. LXXXVII. Regarding their possible ritual function, see Harrison, Music in Medieval Britain, p. 296. Pirrotta leaves open the question whether comparable Italian compositions from ca. 1300 (for two voices) were "intended for liturgical use, or simply practiced for the recreation of the musicians themselves..." (Nino Pirrotta, "Marchettus de Padua and the Italian Ars Nova", Musica Disciplina IX (1955), p. 65.) - Antecedents of such "para-liturgical" repertoires are the Notre-Dame conducti and, ultimately, the "versus" contained in two of the so-called St. -Martial manuscripts (cf. Leo Treitler, "The Polyphony of St. Martial", Journal of the American Musicological Society XVII (1964), p. 32).
${ }^{34}$ Garlandia: Coussemaker, Scriptorum ..., vol. I, p. 116a; the related treatises of Anonymus I and Pseudo-Tunstede: ibid., vol. I, p. 302a and vol. IV, p. 294b; re-

Increasingly, however, parallel triads came to be disguised by voice crossings:

Ex. 3


Parallel $\frac{10}{6}$,s also make occasional appearances:


A composition in which all four types of chord appear in parallels is OH No. 57. It must be borne in mind that in the majority of such compositions the chordal texture is not monochrome, but quite varied, and includes a good many more or less extensive passages in which no parallelism occurs at all. In some more advanced compositions parallelism is disguised by syncopation; this happens quite frequently in the compositions by Cooke and in some of Chirbury's works: ${ }^{36}$
garding the latter, cf. Reaney, "The Manuscript Chantilly, Musée Condé 1047", Musica Disciplina VIII (1954), p. 73, n. 51.
${ }^{85}$ In this piece, as well as in quite a number of other compositions, parallel fifths appear between any two of the three voices; cases of parallel unisons or octaves (e.g. mm. 10-11 of Ex. 2) are rarer; contrary to Apfel's assertion (Studien ..., vol. I, p. 77), octave parallels do not seem to occur between the upper voices of cantilenae etc.
${ }^{36}$ Chirbury's Credo (Old Hall No. 58) is surely one of the finest compositions in the oldest layer of the manuscript. Since "the old layer of OH consists only of conductus-like settings in score which always precede the settings in cantus collateralis" (Bukofzer, Studies..., p. 98), and in view of the music preserved in the sources prior to the Old Hall manuscript, it seems likely that the pieces notated in score (cf. Apfel, Studien..., vol. I, pp. 87f) represent the oldest stratum. Only such pieces are included in this discussion, i.e. the "oldest layer," which is not later than ca. 1400 (Nos. 1-6, $38,40,41-48,53-59,90-106,120-131)$. For further details and emendations of the lists in Bukofzer's Studies (pp. 47f) and in Apfel's Studien (vol. I, pp. 98f) see Sanders, "Medieval English Polyphony ...", p. 432.

## Ex. 5

OH No. 5, mm. 20-29 and 75-77 (I, 2 and 4)


In some others it is rendered less obvious by the lively unsyncopated rhythms of the upper voices.

Ex. 6



A singular composition is the fragmentary setting of the Gloria preserved in MS Oxford, B.L., Fairfax 27, fol. II, which avoids parallel chords: ${ }^{37}$ The form of the fragment - disregarding rhythmic changes caused by the need for accommodating text sections with varying numbers of syllables - is aabccb. ${ }^{38}$ Unfortunately, the fragmentary preservation of

Ex. 7


${ }^{37}$ It may be the incompletely preserved continuation of the stylistically identical and structurally similar fragmentary Gloria in MS London, B.M., Cotton Titus D. XXIV, fols. 2v-3; cf. Apfel, Studien..., vol. I, pp. 61 and 79.
${ }^{38}$ Apfel's analysis (ibid., p. 79) is defective.

the piece prevents us from knowing whether $b$ functioned as a musical refrain throughout.

Similarly organized settings of the Gloria, but in parallel style, are contained in MSS London, B.M., Sloane 1210 (fols. 138-139) and Add. 40725 (fols. $1 \mathrm{v}-1$ ). The latter has the form of a sequence: ${ }^{39}$

Ex. 8

${ }^{39}$ Again, Apfel's analysis (ibid.) misses some of the correspondences. The beginning of the piece, which is lost, undoubtedly was a shorter version of the section extending from Laudamus te to Glorificamus te.


The Gloria in the Sloane manuscript is reminiscent of the WF in its constant oscillation between $g$ and $f$, and in the rather primitive, though engaging, variational technique that is incessantly applied to two harmonically generated phrase elements. ${ }^{40}$

$$
\text { Ex. } 9
$$


${ }^{40}$ Apfel's analysis (ibid., pp. 79f) is unnecessarily cautious and restrictive. Denis Stevens's suggestion that the "upper voice seems to be freely based on Sarum 3" (Expériences Anonymes record EA - 0031) does not seem very plausible. - In one extraordinary case, viz. the troped Kyrie preserved in the Durham Chapter Library and recorded on EA - 0031, the double-versicle form is even applied to the nine-part form of the Kyrie, with the result that the last of the nine sections was simply disregarded; how it was performed is anyone's guess:

$$
\begin{array}{ccc}
\text { A A B } & \text { B C C } & \text { D D } \\
\text { Kyrie troped } & \text { Christe troped } & \text { Kyrie troped }
\end{array}
$$



In all probability, such Gloria settings ${ }^{41}$ are ultimately derived from the kind of composition preserved in WF No. 88, which is nothing more than a chain of sections of varying brevity, all ending with the same (or
${ }^{41}$ The freely composed Gloria by Antonius de Civitate (Johannes Wolf, Geschichte der Mensural-Notation von 1250-1460, vol. III, No. 72) is a relative latecomer, compared to the English specimens; according to Besseler ("Antonius de Civitate", MGG I, col. 550), the composer flourished during the "first third of the fifteenth century".
nearly the same) musical rhyme: ${ }^{42}$
Ex. 10


The sectional organization of several of these compositions constitutes a second link with the carol, ${ }^{43}$ whose forme fixe in turn relates it to the virelai, ballata, and, especially, the lauda. It therefore becomes necessary to state that these settings of liturgical texts as well as the many freely composed polyphonic cantilenae and sequences with their sectional structural features, that crowd the manuscripts, ${ }^{44}$ evidently reflect popular musical practices in England; in that respect, too, they are precursors of the 15 th-century cantilenae and carols, ${ }^{45}$ even though they have no refrain structure. The avoidance of the vernacular ${ }^{46}$ in this basically popular music was an aim successfully pursued by the Franciscans; quite probably, some of the freely composed cantilenae are contrafacta of polyphonic songs in English, as in the Red Book of Ossory. ${ }^{47}$ Thus, the tradition of this music extends not only forward to the 15 th-century carols, but also to the duets of the preceding century mentioned on p. 8 above, a number of which are in English.

[^22]${ }^{47}$ Cf. Bukofzer, "Popular and Secular Music ...", p. 118.

That both the carols and the 13th-century duets are linked to the freely composed English repertoire (notated in score) of the fourteenth century is further proved by the existence of a few pieces in MSS Cambridge, Gonville \& Caius Coll. 512/543 ${ }^{48}$ and London, B.M., Sloane 1210, that are written for only two voices moving predominantly in parallel sixths. ${ }^{49}$ It is possible that a middle voice, running generally in parallel fourths with the top voice, was implied, even though not written down. (The same has been suggested for a number of similarly written carols. ${ }^{50}$ ) This is all the more likely, as the compositions à 2 are very much in the minority and as in one of the pieces in the Gonville \& Caius manuscript (as well as in its concordance in MS Cambridge, Pembroke College 228) a middle staff was originally left blank and subsequently filled in by another hand with a rather clumsy part. ${ }^{51}$ The Virgo salvavit hominem from the Sloane manuscript (fols. 139 v -140) may serve as an example of the two-voiced compositions: ${ }^{\mathbf{5 2}}$

Ex. 11


48 One concordance in MS Cambridge, Pembroke Coll. 228; cf. Apfel, Studien ..., vol. I, p. 59. The Gonville \& Caius manuscript also contains a duet that is not in parallel style, the Gemma nitens partly published by Handschin in Der Toncharakter (Zürich, 1948), pp. 257-258. Its form is: a a'; b b; c c; d. Only the first two sections are printed by Handschin; their five phrases relate as follows: $\alpha_{1} \alpha_{2} ; \alpha_{1}^{\prime} \alpha_{1}{ }^{n} \alpha_{2}^{\prime}$.
${ }^{49} \mathrm{C} f$. Harrison, "English Church Music in the Fourteenth Century", in New Oxford History of Music, vol. III, pp. 95f. These pieces were mentioned (as "gymels", even though their voices are notated in different clefs and never cross) by Bukofzer ("Gymel", MGG V, col. 1143). A related technique, with a slow cantus firmus in the middle voice, appears in the motets of the Sloane manuscript, in two motets of MS Oxford, New College 362, and in at least two of the motets in MS Westminster Abbey 12185; cf. Sanders, "Medieval English Polyphony...", pp. 231 ff and n. 95.
${ }^{50}$ John Stevens, loc. cit., pp. 80a f.
${ }^{51}$ Apfel, Studien..., vol. I, p. 73.
${ }^{52}$ Apfel's (ibid. and "England und der Kontinent in der Musik des späten Mittelalters", Die Musikforschung XIV (1961), p. 284) formal analysis is incorrect. His doubt whether the piece is complete is easily allayed by pointing out that it lacks nothing tonally, structurally, or poetically, and that the "notes" after the double bars are merely decorations.


The - probably erroneous - variants indicated for the first section all occur in its first statement. +: d in MS. - MS: audivi.

In addition to the freely composed pieces, numerous cantus-firmus settings in score notation have been preserved. Apart from a few exceptions, the cantus firmus is carried by the middle voice, an exclusively English
practice. ${ }^{53}$ A clue to the origin of this custom may perhaps be furnished by the unusual compositional practices found in many of the settings of the Spiritus et alme trope of the Gloria. This Marian trope was a special favorite of English composers of the late thirteenth and of the fourteenth century. Two settings from the second half of the 13th century are contained in MS Oxford, B.L., Mus. c. 60 and in MS University of Chicago, 654 App. ${ }^{54}$ The former, which still makes use of organal technique, ${ }^{55}$ contains an extended hocket section. ${ }^{56}$ The composer, Robert de Burgate, ${ }^{57}$ may well have written it as early as the mid-sixties. ${ }^{58}$ The importance of the work cannot be overestimated; not only is the cantus firmus treated in an unusually free manner, but it migrates between the two lower voices, giving the piece an aspect reminiscent of some of the works in the Old Hall manuscript composed more than a hundred years later. ${ }^{59}$ The last two of its sections are decipherable: $\mathbf{6 0}$

[^23]*Ex. 12






- The unnecessary clef is a scribal error.
x over a note $=$ cantus firmus (not as in Gr. Sar., pl. 15 ${ }^{\text {, }}$, but as in the version published in Wagner, Einfïhrung...., vol IIL p. 510).

In the setting - in part notation - of the Chicago manuscript it is the top voice that quotes both the text and the lightly embellished tune of the chant. The unpatterned tenor was obviously designed as a contrapuntal support for this tune, ${ }^{61}$ and therefore necessarily differs from those of the other motets in this manuscript. It is difficult and perhaps bootless to try to decide whether to label the piece a motet or a chant setting. At any rate, it is clear that this hybrid was conceived from the top down. The singularity of the case is borne out by a comparison of two excerpts with two chant versions of the trope; the transposition of three notes (paraclite), evidently for reasons of range, is particularly striking.

${ }^{61}$ C $f$. Apfel, Studien..., vol. I, p. 50. Dittmer, who failed to identify the cantus firmus, wrongly suspected that the tenor "could contain a cantus prius factus" (Oxford, Latin Liturgical D 20; ..., p. 9).


The upper of the two rows of symbols above the Triplum indicates to what extent it agrees (x) or disagrees (letters) with the chant in the Sarum Gradual (pl.14*); the lower row concerns the chant in another source, as printed in Wagner's Einführung...; vol. III, p.510.)

As in the case of the Gloria trope from MS Mus. c. 60, there is evidence here of compositional techniques usually associated with English music of a considerably later period.

Both settings handle the high tessitura of the cantus firmus in different ways, each highly unusual. One presents a case of migrant cantus firmus, while in the other the composer has placed the chant melody in the top voice; both versions alter and paraphrase the chant. A third setting, perhaps from ca. 1300, is provided by WF No. 43. ${ }^{62}$ The tenor, which contains the cantus firmus, obviously must have shared its range with the missing Duplum and generally functioned as the middle voice, ${ }^{63}$ as the following

[^24]somewhat tentative reconstruction of the three-part texture demonstrates: ${ }^{64}$
Ex. 14

contains motets à 2 only. Apfel's point conflicts curiously with his view of voice crossing in discant (cf. Apfel, "Die klangliche Struktur der spätmittelalterlichen Musik...", Die Musikforschung XV (1962), p. 217; idem, "Der klangliche Satz...", Archiv für Musikwissenschaft XII (1955), pp. 305f).
${ }^{04}$ No text is given in Ex. 14, since the underlay is somewhat problematic. Evidently, the tenor carried the liturgical text, since, while the bottom of the folio is cut off (facsimile in Dittmer, Oxford, Latin Liturgical D 20; ..., p.37), part of the initial S is still visible, and the text fits the notes and ligatures almost exactly as in the Triplum of the setting in the Chicago manuscript.

The relative freedom with which the cantus firmus is treated in the setting in the Chicago manuscript is here combined with a tradition established in the Worcester Alleluias. ${ }^{65}$ At least some of the sections of the trope, all of which contain textual tropes in the upper part(s), are preceded, followed, or framed by freely composed passages, in which the tenor paraphrases one of the neighboring chant phrases. While a section like "ad Marie gloriam" (mm. 53-66) may have brought the cantus firmus relatively straight, ${ }^{66}$ the first section of the trope is enframed by a prelude and a short postlude (see Ex. 14). The same passage that for reasons of range was transposed in the Chicago setting is here even more radically "brought into line" (see mm. 25-27 of Ex. 14). Apparently for the sake of tonal cohesion, the high $g$ of the second section (m.35) of the chant is preceded by an added note $(d)$; judging by the design of the extant voice (Triplum), this must have occurred every time the cantus firmus begins a phrase on the high g. ${ }^{67}$

The composition has all the earmarks of the cantilena style, except that it contains a cantus firmus in the tenor, which is actually the middle voice, since its relatively high tessitura makes the plain song singularly unsuitable as a traditional tenor. Dittmer has pointed out that a fragmentary setting in score notation of the text of the Triplum of WF No. 43 is preserved in MS Oxford, New College $362{ }^{68}$ and that "there seems to be a certain relationship between these two compositions." The relationship is easily enough accounted for when it is realized that the piece is not a "freely composed" "conductus," ${ }^{69}$ but a polyphonic paraphrase of the same cantus firmus on which WF No. 43 is "based"; here the chant is assigned to the middle voice. The fragment is of extraordinary interest, since it exhibits the techniques of paraphrase, migration, and partial transposition applied to the cantus firmus. The transposition is the same (up a fifth) and involves the same notes as in $W F$ No. 43, thus eliminating the lowest notes ( $a, g$,
${ }^{\text {as }}$ Cf. Sanders, Tonal Aspects . . .", pp. 33-34.
WF No. 43 seems to be one of the oldest of the Worcester palimpsests.
${ }^{\text {®8 }}$ The tenor may have looked approximately as follows:

The last word of the Triplum passage should read "gloriam", not "gloria".
${ }^{\text {et }}$ The English practice of altering a cantus firmus for the sake of tonal unity of their polyphonic settings is discussed in this author's "Tonal Aspects...", pp. 31 ff .
${ }^{88}$ The Worcester Fragments, p. 41. It was published by him as WF No. $43^{*}$.
${ }^{69}$ Ibid., p. 29. A less fragmentary concordance exists in MS Brussels, Bibl. Royale, II 266, No. 10 ("Fragment Coussemaker"), fol. 1v; Apfel, though listing the concordance (Studien..., vol. I, p. 59), denies its existence on the same page (n.4). The piece is not identical with the one preceding it in Apfel's list.
and $f$ ) of the original chant. However, even $b$ and $a$ are considered below the range of the middle voice and are therefore assigned to the lowest voice. As a result there are no voice crossings, just as in the freely composed cantilenae. 70


While all paraphrase settings of the Spiritus et alme treat the cantus firmus with great freedom, ${ }^{71}$ the other compositions with cantus firmus in the middle voice leave the chant, which most of them bring in breves, $\mathbf{7 2}^{2}$ generally untouched. ${ }^{73}$ Harrison has referred to the "numerous examples
${ }^{70}$ Cf. Apfel, Studien ..., vol. I, p. 77. The desire for parallel sixths and tenths in more or less lively rhythms apparently accounts for the relegation of the cantus firmus to the middle voice in the motets mentioned in n. 49 above (cf. Harrison, "English Church Music...", pp. 86 and 89); in at least one case (No. 10 of the New College motets - cf. the list in Apfel, Studien..., vol. I, pp. 27f) this necessitated transposition of the chant to the fifth above.
${ }^{71}$ This is a traditional feature of troping. Interestingly, three settings of the text of the trope without the textual paraphrase are not based on the cantus firmus at all (the last three items listed in Apfel, Studien ..., vol I, p. 58), notwithstanding Handschin's strenuous efforts to prove the opposite for one of them ("Zur Frage der melodischen Paraphrasierung im Mittelalter", Zeitschrift für Musikwissenschaft X (1928), pp. 543 ff). On the other hand, all compositions listed under 2. in Apfel's Studien, vol. I, p. 59, are troped (paraphrased) cantus-firmus settings.
${ }^{72}$ Apfel, Studien ..., vol. I, pp. 63f.
${ }^{73}$ There is good reason for assuming that much of this music was choral polyphony; cf. Harrison, Music in Medieval Britain, p. 156. (Jacques de Liége reports the possibility of doubling the parts in discant; cf. Coussemaker, Scriptorum..., vol. II, p. 386a.)
of parallel descant in English fourteenth-century music"; ${ }^{74}$ but the parallelism so characteristic of the cantilena style seems quite scarce in the chant settings. ${ }^{75}$

Examples of compositions that leave the cantus firmus untransposed are the setting of Agnus Sarum No. 4 (Ed. Vat. VI) in MS Oxford, B.L., Mus. d. 143 (concordance in MS Oxford, B.L., Barlow 55) ; Nos. 5, 6, and 8 in MS London, Public Record Off. E 149/7/23 dorse; ${ }^{76}$ Old Hall Nos. 4, 40, 95-97, 124; and MS London, B.M., Add. 40011 B ("LoF"), No. 5. 77 Almost all of these have an eighth-mode cantus firmus. ${ }^{78}$ Occasional voice crossings occur when the contrapuntal situation created by the position of a few notes of the cantus firmus makes them unavoidable. A stylistically somewhat different work that otherwise also belongs to this group is the

74 "Faburden in Practice", Musica Disciplina XVI (1962), p. 23. His subsumption of free compositions under the term "descant" ("English Church Music ...", p. 95; Music in Medieval Britain, p. 150) would seem to obliterate an essential distinction evidently taken for granted in the fourteenth and fifteenth centuries. All English discant treatises consider discant as elaboration of a "cantus planus" ("plain song") and Pseudo-Tunstede, in discussing discant, equates Tenor and planus cantus (Coussemaker, Scriptorum..., vol. IV, pp. 281b and 282a). The very rarity of parallel discant places in doubt Harrison's assertion that faburden "can be traced back to the fourteenth century" ("Faburden in Practice", p. 11; also p. 23); cf. also n. 148 below.
${ }^{75}$ The middle voice of the sequence or cantilena Includimur nube caliginosa seems to contain a cantus prius factus (cf. Bukofzer, "The Gymel . . .", p. 82, and Apfel, Studien..., vol. I, p. 74); correspondingly, the piece is hardly "fauxbourdon throughout", as Andrews and Dart put it ("Fourteenth-Century Polyphony ...", p. 7). The same applies to the two settings of the Angelus ad viginem, a cantilena with typically sectional form (a a, b b', c c). Cf. Bukofzer, "English Church Music...", pp. 114-117; Bukofzer calls it a hymn. It is the same - not the variant - setting that is printed, transposed, in Gleason's collection. The variant is available only in Early English Harmony, H. E. Wooldridge, ed., since the version printed in The History of Music in Sound, Gerald Abraham, ed., vol. III, pp. 24f, is admittedly a "conflation".
${ }^{76}$ Cf. Denis Stevens, "A Recently Discovered English Source ...", The Musical Quarterly XLI (1955), especially p. 33.
${ }^{77}$ As to the early-15th-century MS LoF, see Bukofzer, Studies..., ch. III. The similarities between any Sarum or Vatican Sanctus and the middle voice of WF No. 83 are too slight to warrant Hughes's (Worcester Medieval Harmony, p. 59) and Dittmer's (The Worcester Fragments, pp. 55 and 59) assumption that the latter is a cantus-firmus setting, especially as no text is preserved.
${ }^{58}$ The cantus firmus of Old Hall No. 40, though labeled as in the sixth mode in the Vatican books, is really in transposed Hypomixolydian. Old Hall No. 97, and No. 5 in the London manuscript (Public Record Off.) set Lydian chants, while the cantus firmus of No. 8 of the latter source is in sixth mode. The other high mode No. 7 - does not appear in any of the English cantus-firmus settings of the fourteenth century; its absence is explained to a large extent by the fact that no Gregorian Sanctus or Agnus is in Mixolydian.
sixth Kyrie setting in MS London, B.M., Arundel 14; ${ }^{79}$ its cantus firmus, being in transposed Dorian, also lies high.

A different situation presents itself in LoF No. 7, which sets an untransposed Dorian plain song, and in the generally quite clumsy setting in MS London, B.M., Add. 40725 of Sanctus ${ }^{80}$ Sarum No. 2 (Ed. Vat. VIII), ${ }^{81}$ which is a Hypolydian chant. Its range necessitates voice crossings for considerable stretches at a time.

Ex. 16


On the other hand, a setting of the Credo in MS London, B. M., Sloane

[^25]$1210^{82}$ rigidly avoids voice crossings, ${ }^{83}$ with the result that the register of the entire composition lies unusually low; in fact, the melodic motive ede is twice ("remissionem" and "resurrectionem") transposed up a second in order to rescue the bottom voice from the lower depths.

Ex. 17


Both cases demonstrate the difficulties involved in placing a cantus firmus of low or average range in the middle voice.

The obvious answer, which reduces the need for voice crossings, ${ }^{84}$ is to transpose such a chant when it is to be set; a less obvious answer is the technique of migrant cantus firmus. ${ }^{85}$ Both devices were used - the less obvious one comparatively rarely; in fact, the great majority of fourteenthcentury English chant settings, in contrast to those discussed so far, transpose the cantus firmus up a fifth - much more rarely a fourth ${ }^{86}$ - and place it in the middle voice. ${ }^{87}$ Apart from LoF No. 7 and the Old Hall and
${ }^{82}$ Concordance in MS Cambridge, Pembroke College 228 (Apfel, Studien..., vol. I, p. 62); it is the only known English setting of the Credo prior to Old Hall.
${ }_{83}$ This is due to the prevailing parallelism of its cantilena style, which it has in common with the other compositions in this and related manuscripts.
${ }^{84}$ There are few exceptions to the rule that in English chant settings of the fourteenth century each of the three voices has a different clef; in the oldest layer of Old Hall there are, contrary to Harrison's statement ("Old Hall-Manuskript", MGG IX, col. 1922), four pieces in which two voices have the same clef (Nos. 54, 91, 106, 121b); significantly, the first two are examples of the technique of migrant cantus firmus (cf. pp. 41 below).
${ }^{85}$ Regarding the rarity of the appearance of a cantus firmus solely in the bottom voice, cf. Sanders, "Medieval English Polyphony ...", pp. 404f.
${ }_{88}$ These are, of course, the most meaningful transposition intervals, as is also demonstrated by the fact that transpositions of Gregorian chants are likewise limited to them (cf. Willi Apel, Gregorian Chant (Bloomington, Ind., 1958), pp. 157f).
${ }^{87}$ Octave transposition occurs only twice (Old Hall Nos. 101 and 121); both involve Hypodorian chants. One of the compositions that transposes its cantus firmus up a fifth and places it in the middle voice is already contained in the Sloane MS (O lux beata trinitas); cf. Trowell, "Faburden and Fauxbourdon", p. 57, n. 42. Not surprisingly, in view of the general stylistic tenor of the manuscript, the piece, whose form is aaba, is in cantilena style; cf. also n. 70 above.

LoF settings of high cantus firmi just cited, the practice of placing an untransposed cantus firmus in the middle voice is abandoned in the later sources. 88

In its most severe and least attractive aspect this style is nothing more than note-against-note counterpoint in breves (e.g. WF No. 85). But in most cases at least the top voice was given a somewhat livelier rhythmic and melodic profile; subsequently, the bottom voice, too, often received more attention from the composers. ${ }^{89}$ There is no question, however, that almost always only minimal adornments of a strictly functional style were involved. ${ }^{90}$ The strict subservience to the cantus firmus gives rise to cadences ${ }^{91}$ that are certainly unorthodox in the light of contemporary Continental practices. The most common types are $\begin{gathered}7-8 \\ { }_{2-1}^{6-5} \text { (involving the interval of the }\end{gathered}$ 2-1

[^26]${ }^{91}$ Cf. Apfel, Studien ..., vol. I, p. 97, and Stevens, op. cit., p. 36.

major second between the upper voices) and $\begin{gathered}7-8 \\ 5-5 \\ 2-1\end{gathered}$, which latter disregards the theorists' interdiction against the vertical interval of the fourth. ${ }^{92}$ A more unusual cadence concludes No. 6 of MS London, B.M., Arundel 14 (in which the middle voice carries an untransposed cantus firmus): ${ }^{93}$

Ex. 18


92 One resourceful composer allowed himself a subterfuge, already noticed by Apfel (Studien..., vol. I, p. 66, n. 16); its effect is to turn the fourth into a suspension:


One of the very few fourteenth-century treatises that fleetingly go beyond two-part note-against-note discant - composed and improvised - in their partial reflection of the polyphony of their time (cf. Palisca, "Kontrapunkt", MGG VII, cols. 1530f; Gilbert Reaney, "Fourteenth Century Harmony ...", Musica Disciplina VII (1953), pp. 135ff) is the Tractatus de Consonantiis Musicalibus of Anonymus I, whose author, after pointing out that the combination of the intervals of the fourth and fifth yields the octave, continues with the following revealing observation (Coussemaker, Scriptorum..., vol. I, pp. 299a f): "Et aptius est ut diatessaron supra diapente ponatur quam e converso. Est enim diapente melior concordantia et dulcior quam diatessaron". ( It is more fitting to place the fourth above the fifth than to do the opposite. For the fifth is a better and sweeter consonance than the fourth.) Pseudo-Tunstede expresses himself similarly (ibid., vol. IV, p. 279b). Ernest Trumble has called attention to the ingenious manner in which an anonymous fifteenth-century theorist, in describing faburden, avoids mention of the fourth as consonant, even trough the two top voices move constantly in parallel fourths ("Authentic and Spurious Faburden", Revue Belge de Musicologie XIV (1960), p. 18). Of course, faburden, which is, properly speaking, not a species of discant at all (cf. n. 148 below), involves three voices, while the theorists' discussions of discant, formulated in terms of two voices, understandably make no mention of the consonant fourth.
${ }^{93}$ Cf. pp. 31 f above

Only four compositions à 3 exist in which the lowest voice has the (untransposed) cantus firmus throughout; they occur in three manuscripts, ${ }^{94}$ which apparently date from before the middle of the century. A fifth and altogether exceptional case is the magnificently sonorous fourpart setting of the Alleluia: Nativitas in MS Cambridge, Corpus Christi Coll. 65, fol. 135a, where the cantus firmus is transposed down a fifth:

Ex. 19

${ }^{94}$ Oxford, B.L., Barlow 55; Oxford, B.L., Mus. d. 143; and the Leeds manuscript. The four compositions are Constantes estote; Spiritus domini; Alleluia: Hic est vere martir (cf. Harrison, "English Church Music...", p. 98, where a few accidentals are missing); and Alleluia: Post partum, all listed under 2b in Apfel, Studien..., vol. I, p. 63.


The fact that the cantus firmus in all these pieces is drawn from responsorial psalmody also bespeaks a relatively old tradition that was dying out; only two such pieces with cantus firmus - transposed - in the middle have been preserved, and one of these (in the Leeds manuscript) is a setting of the same chant (Constantes estote) whose setting in the bottom voice had been written by the same scribe on the preceding page of the manuscript. ${ }^{95}$ The interest of the latter lies in the fact that 32 of the 38 notes of the cantus firmus are paralleled by the Duplum at the upper fifth; as in the other setting of the same chant, it is the middle voice that is written in red. ${ }^{96}$ It is hard to avoid the impression that these two settings reveal the moment when one composer, finding the older technique uncongenial, switched his allegiance, as it were. A further development is represented by the setting of the Easter sequence in the same manuscript. Generally, the two lower voices move in parallel fifths, but rhythmically the two outer voices are paired:

Ex. 20

${ }^{95}$ The leaf on which a similar discant composition of this chant appears (MS Oxford, B.L., Barlow 22), also contains the only other setting of a responsorial chant with the cantus firmus in the middle voice (cf. Apfel, Studien..., vol. I, p. 62).
${ }^{* 6}$ Apfel, Studien..., vol. I, pp. $68 f$.
${ }^{97}$ Printed in Bukofzer, Geschichte des englischen Diskants, Ex. 19; excerpts in Wolf, Handbuch..., vol. I, pp. 362f, and Besseler, Die Musik des Mittelalters und der Renaissance (Potsdam, 1931), p. 173.


The Sanctus on fol. I of MS Cambridge, Gonville \& Caius Coll. 334|727 and the third setting in MS London, B.M., Arundel $14^{97}$ also have their respective cantus firmi in the bottom voice. However, in both cases the two lower voices have the same clef (alto) and the same range; as often as not the two voices cross. In a similar case (Alma redemptoris mater, MS Oxford, B.L., Fairfax 27, fol. IIv) the cantus firmus is in the middle voice. ${ }^{98}$

No cantus firmus has been identified in WF No. 108 and in Nos. 1, 2, 4, and 5 of the Arundel manuscript. Refrain-like repetitions and a notation consisting almost exclusively of longs and double longs make it likely that the lowest voice of $W F$ No. 108 contains a pre-existing melody. ${ }^{99}$ As regards the slightly fragmentary No. 5 of the Arundel manuscript, its cantilena style as well as the apparent abscence of internal repetitions seem to indicate that it was freely composed. But Nos. 1, 2, and 4 may be suspected of being based on cantus prius facti. Not only the refrain endings, but also frequent voice crossings, which would certainly be capricious in a freely composed English piece of the time, point to some sort of monophonic model in the lowest voice of No. 1; again, the two lower voices share the same range and cross as often as not.

$$
\text { Ex. } 21
$$


${ }^{08}$ The cantus firmus is not transposed down a fifth, as Apfel claims (Studien..., vol. I, pp. 62 and 68); downward transpositions of cantus firmi in English fourteenthcentury music are exceedingly rare (the Alleluia: Nativitas in MS Cambridge, Corpus Christi Coll. 65, and Old Hall No. 47, in part). Obviously, the model in this case was not the Sarum version of the antiphon, which is in C, but the more common version in F (e.g. Antiphonaire Monastique, Codex F. 160 de la Bibliothèque de la Cathédrale de Worcester, Dom André Mocquereau, ed., Paléographie Musicale, Vol. XII (Toumai, 1922), pl. 303).
${ }^{99}$ Handschin has speculated rather implausibly that its lowest voice may be


In No. 4 the middle voice seems to contain a cantus firmus, not only for the reasons given by Apfel, ${ }^{100}$ but because the middle voice of the first Kyrie of this setting is remarkably similar to the bottom voice of No. 2, which may therefore perhaps be added to the small group of compositions with cantus firmus in the lowest voice:

$$
\text { Ex. } 22
$$



Bottom voice of Kyrie I of MS Arundel 14, No.2.
य
a contraction of Sanctus Sarum 2 (Ed. Vat. VIII) ("Zur Frage der melodischen Paraphrasierung ...", p. 519).
${ }^{100}$ His argument is that, in contrast to the outer voices, the middle voice, with one exception, proceeds only in breves and semibreves; moreover, there are cadences typical of compositions with cantus firmus in the middle voice (Apfel, Studien..., vol. I, p. 77).

In both compositions crossings occur between the lower two voices. While Margareta Melnicki ${ }^{101}$ lists no melodies in her thematic catalogue that resemble anything in Nos. 1, 2, and 4 of the Arundel manuscript, it is possible that a local tradition with local favorites had grown at the place of its provenance; thus, the cantus firmus of No. $6^{\mathbf{1 0 2}}$ does not agree completely with the monophonic model, as preserved in various chant sources, ${ }^{103}$ while that of No. 3 does not appear before the middle of the twelfth century. ${ }^{104}$

The top voice hardly ever carries a cantus firmus. Only three specimens exist, ${ }^{105}$ all of which transpose the cantus firmus up an octave. WF No. 86 is hardly more than a clumsy and unsuccessful experiment. ${ }^{106}$ As regards the setting of Sanctus Sarum No. 3 (Ed. Vat. IV) in MS Cambridge, Gonville \& Caius Coll. 334/727, the customary strict subservience to the cantus firmus produces curiously unsatisfactory cadences, that for contrapuntal reasons are often hard to avoid:

Ex. 23


The remaining example, a setting of Kyrie ${ }^{107}$ Sarum No. 9 (Ed Vat.
101 Das einstimmige Kyrie des lateinischen Mittelalters, [Erlangen, 1954].
102 Cf. p. 35 above.
${ }^{103}$ Apfel, Studien ..., vol. I, p. 76.
104 Melnicki, op. cit., p. 22; it is not included in the Sarum Gradual.
${ }^{105}$ The setting of the Spiritus et alme trope in the Chicago manuscript is a different case entirely. In the fourteenth century compositions with cantus firmus in the top voice are obviously a good deal rarer than the sources. So far there is no evidence to sustain Trowell's claim ("Faburden and Fauxbourdon", p. 72, n. 72) that "the habit persisted, and was developed in the late fourteenth and early fifteenth centuries by the Old Hall composers" - quite apart from the fact that works with the cantus firmus in the top voice are not represented in the oldest layer of Old Hall. The statement that "the habit of placing the chant in the treble is at least as English as it is continental" (ibid., p. 73) is untrue of the fourteenth century and therefore invalid as an argument in support of the thesis which Trowell seeks to fortify with it.
${ }^{106}$ Apfel, Studien ..., vol. I, p. 71.
107 Clearly, the established view, based on the evidence of the Old Hall manuscript, that the preference of the English for troped Kyries prevented them from setting Kyries polyphonically, must at least be altered to allow for exceptions (cf. Bukofzer, "Changing Aspects of Medieval and Renaissance Music", The Musical Quarterly XLIV (1958), p. 7, and Reaney, "Some Little-Known Sources . ..", Musica Disciplina XV (1961), p. 24).
XI) in MS Oxford, B.L., Arch. Selden B 14, ${ }^{108}$ therefore adds the subtonium before the last note of the cantus firmus. However, in this composition the two upper voices share the same clef and the same range, and more often than not the top voice assumes middle position. ${ }^{109}$ Of the two pieces the Sanctus particularly favors ${ }_{3}^{6}$ chords, ${ }^{110}$ which are rare in compositions that restrict the cantus firmus to one voice; the chant setting here becomes cantilena, as it were.

The technique of migrant cantus firmus originally seems to have been confined to alternate sections, when a shift in the range of the cantus firmus occurred. Once again a "first" is furnished by a setting - the earliest known so far - of the Gloria trope Spiritus et alme; it is contained in MS Oxford, B.L., Mus. c. 60 and has already been discussed. ${ }^{111}$ While in a piece in which three of its four voices have the same range, migrant cantus firmus is a formality - though the gesture is not without significance -, it is truly meaningful in compositions where the ranges of the constituent voices are sufficiently separated to make avoidance of voice crossings a technical principle at the composer's disposal. This is the case in the fragmentary setting of the end of the Te Deum ${ }^{112}$ preserved in the Gonville \& Caius manuscript, which in all probability dates from the first half of the fourteenth century, ${ }^{113}$ since several of its cantilenae are concordances of pieces
${ }^{108}$ Apfel failed to notice the cantus firmus (Studien..., vol. I, pp. 61 and 80). There is no reason to assume alternatim performance, as did Denis Stevens in the notes for Expériences Anonymes record EA - 0031. The composition does not so much set "invocations $1(=3), 5,7$, and 9 " as it sets all the music of this Kyrie so that the first of the four settings is for invocations 1-3, the second for the three Christe invocations, while the last two sections apply to invocations 7-9. Curiously enough, however, the order of the last two settings is reversed in the manuscript.
${ }^{103} \mathrm{Cf}$. the case of No. 3 in MS London, B.M., Arundel 14 (see p. 38 above), in which the two lower voices behave similarly.
${ }^{110}$ Bukofzer's appraisal of its contrapuntal style (Geschichte des englischen Diskants, p.115) is erroneous (cf. Günther Schmidt, "Zur Frage des Cantus firmus...", p. 239).
${ }^{111}$ See p. 24 above.
112 Schmidt ("Zur Frage des Cantus firmus...", p. 235) calls it "Bruchstück eines Introitus", indicating that the text comes from psalms 30 and 70. The two Biblical passages, which are indentical, indeed make up part of the text of the Introit for Quinquagesima (as well as of the Te Deum); however, the text of the excerpt he prints comes from the end of psalm 32 and is no part of any Introit. The piece had already been identified by Bukofzer (Geschichte ..., p. 114) as a setting of the Te Deum.
${ }^{113}$ Cf. Harrison, Music in Medieval Britain, p. 150, n. 1; Schmidt, "Zur Frage...", p. 236. To designate pieces in long-breve notation as older than those in which breves and semibreves predominate (Apfel, Studien..., vol. I, p. 70) is risky, as Schmidt has pointed out; Apfel himself states that with the freely composed pieces both notations can occur in successive compositions in a manuscript (Studien..., p. 77).
appearing in the Leeds manuscript and in MS Cambridge, Gonville \& Caius Coll. 512/543. The cantilena style also prevails in the Te Deum, with the exception that the tuba, which predominates in the first of the two preserved sections (cantus firmus in the middle voice) is accompanied with the lower fifth and upper fourth; for contrapuntal convenience, the lowest note of the chant (the final $e$ ) migrates to the top voice, transposed to the upper octave. Similar considerations of range account for the placement of the cantus firmus in the bottom voice in the final section of the piece. ${ }^{114}$

Apart from a number of Old Hall compositions, three pieces have been preserved in which the cantus firmus migrates within a section. They appear in two manuscripts that are at least somewhat younger than the Gonville \& Caius manuscript 334/727; both a partial setting of the Magnificat ${ }^{115}$ and a setting of the antiphon Sancta Maria intercede are contained in MS Cambridge, University Lib., Kk. 1. 6., ${ }^{116}$ while MS Oxford, B.L., Laud. Lat. 95 preserves a setting of the hymn Conditor alme siderum with neuma. The Magnificat resembles the Te Deum in that only the last two notes of each verse migrate from the middle voice (to the lowest voice in this case), while the tuba is accompanied more richly - with triads rather than ${ }_{5}^{8}$ 's. The remaining two pieces expand the principle of migration that so far had been introduced only tentatively at cadence points. In the antiphon, the freedom with which the two lower voices treat the cantus firmus is quite intriguing. ${ }^{117}$

Ex. 24


114 The composition ends with the neuma of the third mode; the cantus firmus of the neuma, not identified in Ex. 18 of Bukofzer's Geschichte..., is indicated in Ex. 7 of his article "Discantus" in MGG III, col. 575.
${ }^{115}$ Not only the first verse (Harrison, Music in Medieval Britain, p. 345), but also verses 7-12 are missing (cf. Apfel, Studien..., vol. I, p. 63).
${ }^{116}$ Schmidt recognized the setting of the Magnificat as somewhat more progressive than the setting of the Te Deum in the Gonville \& Caius manuscript ("Zur Frage...", p. 237).
${ }^{117}$ Apfel's assertion that none of the melodies listed by Stäblein (Monumenta Monodica, vol. I) for that text seems to be the cantus firmus of this composition is in error, since he failed to recognize its position. The version in the Sarum Anti-

$x=$ cantus firmus; $0=$ notes of cantus firmus changed from a to $d$; $=$ note of cantus firmus transposed down an octave.
©At this point the preceding two measures (slightly changed) are erroneously repeated in the manuscript.
The hymn, which is apparently rather late, ${ }^{118}$ is stylistically more progressive and can be grouped with similar Old Hall pieces.

The majority of the Old Hall and LoF compositions with migrant cantus firmus resemble the Magnificat in choosing this technique only occasionally and merely as a notational alternative to voice crossings; ${ }^{119}$ this applies to Old Hall Nos. 4 (?), ${ }^{120} 54,55,94-97,124,129,121$ and LoF No. 5. In most of these the cantus firmus is untransposed and belongs
phonary, pl. 493, is clearly the model for this setting. At the cadence, which he singles out for special mention, the cantus firmus is not in the middle, but in the bottom voice.
${ }^{118}$ Ca. 1400, according to Harrison (Music in Medieval Britain, p. 151, n. 1). He assumes that the manuscript - a Psalter, Collectar, and Hymnal of ca. 1200 was of secular use, since the hymn Salvator mundi has the tune of the hymn Veni creator. However, the hymnal of Nevers also uses the same tune for both poems (cf. Stäblein, op. cit., pp. 83 and 94). Since Nevers was the seat of a Benedictine priory associated with Cluny, there is no need to consider the rather free migrant cantusfirmus technique in this manuscript as associated with secular use.

119 Cf. Harrison, Music in Medieval Britain, p. 230, n. 3; idem, "English Church Music ...", p. 102. That the contrapuntal considerations causing cantus-firmus migration are usually the very ones that would otherwise produce voice crossings was demonstrated by Edgar H. Sparks, "Cantus-Firmus Treatment in Fifteenth-Century Music", University of California (Berkeley) Dissertation (1951), pp. 19ff).

120 Thurston Dart in his review of Bukofzer's Studies (Music and Letters XXXII (1951), p. 272) has suggested that Bukofzer's emendation of a passage in this Gloria in which both black and red notes appear in the middle voice is incorrect and that only the red notes were meant to be sung, while the black notes, representing the notes of the cantus firmus, were dutifully written by the composer, even though they patently do not fit the ending he had in mind. Unquestionably, Bukofzer's solution is musically
essentially to the middle voice. ${ }^{122}$ Only in No. $97{ }^{123}$ are voice crossings avoided altogether.

In the remaining compositions with migrant cantus firmus (the hymn from MS Oxford, B.L., Laud. Lat. 95, and Old Hall Nos. 104, 91, 59, and 47) distribution of the notes of the cantus firmus throughout all three voices is no longer a technical expedient, but has become a stylistic principle. ${ }^{124}$ It is obvious that this phenomenon could arise only in a musical tradition that, in contrast to French practices, conceived the constituent voices of a polyphonic composition from the outset as interdependent parts of an integrated whole. ${ }^{125}$ (The four extant motets of the early 14th century in which the cantus firmus is involved in Stimmtausch ${ }^{126}$ might in
untenable, while Dart's interpretation is supported by similar cases in Old Hall Nos. 53, 102, 105, and 106. - No. 4 may have had a migrant cantus firmus, since in the spot discussed by Dart the chant briefly seems to move to the top voice. The incompleteness of the piece leaves open the question whether this is a contrapuntal accident or compositional design.

121 Apfel erroneously corrects Bukofzer's designation of the cantus firmus of this piece as migrant (Studien..., vol. I, p. 99, n. 24). In view of mm. 74-75 it is possible that the editors' restoration of $\mathrm{mm} .38-39$ may be incorrect, since in that passage the cantus firmus probably also migrated to the lowest voice.
${ }^{122}$ Cf. p. 31 above. Exceptions are Old Hall Nos. 54, 55 (where the cantus firmus migrates only in mm. 9-10), 94, and 129. In Nos. 55 and 129 the upward transpositions are by a fifth and fourth, respectively, while No. 94 transposes its chant up a second (not a prime [!], as Apfel indicates (Studien..., vol. I, p. 98)). No. 54 is singular, since it is the only composition in the earliest layer of Old Hall to allot the cantus firmus (transposed to the fifth above) to the top voice almost exclusively. It treats the cantus firmus slightly more freely than is common (e.g. the addition of two notes at the end, which is evidently due to tonal considerations) and may be regarded as a predecessor of Old Hall Nos. 115 and 116, whose three voices are treated with a degree of rhythmic variety that properly requires part notation; this circumstance, as well as the appearance of Nos. 115 and 116 in the manuscript among compositions notated in parts, account for their exclusion from this discussion. (The same applies to No. 117, which is freely composed.)
${ }^{123}$ The lowest voice of No. 97 also appears as one of the isolated "tenors" notated successively in MS London, B.M., Lansdowne 462 (cf. Bukofzer, Studies ..., p. 92, and Apfel, Studien..., vol. I, pp. 71f). Bukofzer suggested - and Apfel has tentatively seconded him - that these were perhaps intended as counterpoints to plain songs. Since the lowest voice of No. 97 itself contains part of the cantus firmus, this is plainly impossible in this case. (It is also impossible in the only other case for which there is a concordance (Old Hall No. 117), since the bottom voice of this freely composed Sanctus was not intended and cannot be made to fit any Gregorian cantus firmus.)

124 Apfel is in error in claiming migration of the cantus firmus to take place only between the two lower voices in Conditor alme siderum (Studien..., vol. I, pp. 63 and 71).
${ }^{125}$ Cf. Bukofzer, Studies..., p. 46; idem, "English Church Music ...", p. 179; Apfel, Studien..., passim.
${ }^{126}$ These are discussed in detail in this writer's dissertation, pp. 192-201.
that respect perhaps be considered as predecessors of the compositions with migrant cantus firmus.)

Of the five compositions just cited, Old Hall No. 104, a Sanctus setting by Chirbury, is the least complex. Most of the notes of the cantus firmus, which is transposed to the upper fifth, are allotted to the middle voice. The various migrations of the chant to the top voice can be explained, as in the cases previously discussed, as convenient alternatives to voice crossings. ${ }^{127}$ But no factors of ambitus can be adduced to justify the two migrations to the bottom voice ( $\mathrm{mm} .17-18$ and 34-35). Desire for variety is the only possible motivation.

Rather more intricate is Old Hall No. 91, in which considerations of range not only produce the device of migrant cantus firmus, but, alternatively, also of change of transposition of the plain song. ${ }^{128}$ Again, most of the chant appears in the middle voice. It is particularly significant that the two lower voices cross only exceptionally, even though they share the same clef and almost exactly the same range. The significance of the remaining three pieces extends beyond the scope of this essay. ${ }^{129}$

Ever since the publication in 1936 of Bukofzer's dissertation, ${ }^{130}$ textbooks and scholarly articles alike have taken over his main thesis that, in contradistinction to fauxbourdon compositions, which have been held to be characterized by a cantus firmus in the top voice, with a notated voice forming mostly sixths and occasionally octaves and an unnotated voice running in parallel fourths with the cantus firmus, "English discant," ${ }^{131}$ while also exhibiting parallel ${ }_{3}^{6}$-chord style, allots the cantus firmus to the lowest voice. He based his conclusions on a passage in the treatise of PseudoTunstede, ${ }^{132}$ on a number of English discant treatises, mostly written in
${ }^{127}$ While the middle voice touches $e$ and $d$, it does not linger there. To leave the plain song in the middle voice when it ascends to $f$ (m.6) would necessitate either a $b$ (b-flat) in the top or a $d$ in the lowest voice; in either case an excessive extension of range would result.

128 Thus, the top note of the chant (c) once (m. 2) appears in the middle voice in a passage transposed up a fourth, while another time ( m .44 ) it is allotted, in octave transposition, to the top voice. (The transposition interval of the sixth, indicated by Apfel (Studien..., vol. I, p. 98) is not used.) Elsewhere change of transposition reduces the melodic leap of a major sixth in the original chant to a major second (mm. 33-34).
${ }^{120}$ They are discussed in this writer's dissertation, pp. 406 f.
${ }^{130}$ Geschichte des englischen Diskants.
${ }^{131}$ The term was invented by Bukofzer (ibid., p. 11).
${ }^{132}$ Coussemaker, Scriptorum ..., vol. IV, pp. 294a f.
the first half of the fifteenth century, and on a few selected fourteenthcentury compositions.

It was not until recently that this construct of a specific kind of "English discant" was shown to be fallacious by Sylvia Kenney, ${ }^{133}$ who called attention to the doctoral dissertation of Georgiades, published one year after Bukofzer's. ${ }^{134}$ Georgiades's investigation of five English discant treatises, which had, among others, also been the subject of Bukofzer's study, led him to dispute the notion of prevailing parallelism in English discant, which goes back one hundred and eighty years to Burney's misreading of a few examples in one of these tracts. The facts of the matter are that parallism is inconsistent with the tradition of discant anywhere in Europe, ${ }^{135}$ and is not, in fact, taught as such in any of the English discant treatises, which, like all such handbooks, concern themselves with the composition or improvisation of one discant against a plain song. ${ }^{136}$

[^27]Miss Kenney refrained from a re-examination of the pertinent musical sources or of the passage in the Quatuor Principalia. As to the latter, Bukofzer himself had already found it necessary to disavow his original misreading. ${ }^{137}$ It should be added that Pseudo-Tunstede nowhere refers to the type of discant, described by him in this excerpt, as English, and that his phrase "alius modus discantandi" need by no means be interpreted as English discant, merely because of the nationality of the author ${ }^{138}$ or because he characterizes it as "valde levis." ${ }^{139}$ Nor is it necessary or convincing for Bukofzer to assume that "in Curia Romana et etiam Francigeni non ascendunt per sextas voces cum plano cantu nisi fuerit raro" ${ }^{140}$ implies a contrary English practice. ${ }^{141}$ Pseudo-Tunstede simply cites Rome and
was common in England" (ibid., p. 307, n. 3). In the absence of examples from the sources it is difficult to avoid the impression that Miss Kenney, though neglecting Apfel's hypotheses, has effected a reductio ad absurdum not only of Bukofzer's English discant, but of Apfel's "klanglicher Satz" as well.
${ }^{137}$ "Discantus", MGG III, col. 573. That it constituted an arbitrary interpretation was suggested as early as 1938 by Ernst Ferand (Die Improvisation in der Musik (Zürich, 1938), p. 168, n. 1). The passage has recently been subjected to two further misinterpretations. Schmidt ("Zur Frage des Cantus firmus ...", p. 234, n. 2) perverts the original by assuming that the theorist, who actually discusses a discant consisting of cantus firmus, two (or three) voices paralleling it in fifths, octaves, (and twelfths) in ornamental style, and one true discant voice, describes four parts moving in parallel thirds, sixths, and tenths. Schmidt claims that the phrase "Is vero qui discantabit" must refer to all of the parallel voices, as such treatises always concern themselves with discant - be it for two or more voices - only in terms of the cantus firmus and one discanting part. However, not only does the immediate context make such an interpretation unbelievable, but Schmidt suppresses the fact that this particular type of discant is to be performed by five or four singers, depending on whether or not there is a fourth, singing generally in parallel twelfths with a presumably low cantus firmus. In either case it is the last (highest-numbered) singer who discants (singing primarily the imperfect intervals of the third, sixth and tenth against the cantus firmus). In effect, the treatise remains within the bounds of tradition by describing a special kind of two-part discant ("Is vero qui discantabit"!), though, as the author points out, it sounds like a much more complex affair. Apfel, whose interpretation (Studien..., vol. I, p. 85) has been called "most convincing" by Trowell ("Faburden and Fauxbourdon...", p. 78, n. 99), translates "primus incipiet planum cantum in tenore" as "the first should start in unison with the cantus firmus". This fictitious singer, who, as Apfel admits, is in the next paragraph missing from the ensemble, is then supposed to sing in a manner that can be substantiated only by the assumption that the theorist did not know how to express himself clearly. (It is extraordinary how the field of English medieval music particularly is littered with the fractured bones of theorists, who, for the sake of a theory, are presumed to be of limited competence.)
${ }^{138}$ Schmidt, "Zur Frage des Cantus firmus . . .", p. 234, n. 2.
139 Bukofzer, Geschichte des englischen Diskants, p. 19.
${ }^{140}$ Coussemaker, Scriptorum ..., vol. IV, p. 293b.
${ }^{141}$ Bukofzer, Geschichte ..., p. 19.

France as authoritative. ${ }^{142}$ Finally, it should be pointed out that Ferand had already called attention to an alternate version of this passage, ${ }^{143}$ which may well be more sensible.

For a sketch of the history of "English discant" Bukofzer acknowledged examination of the practical sources to be indispensable, and indicated that he hoped to deal extensively with the problems posed by them in the foreseeable future, while for the purposes of his dissertation restricting himself, whenever possible, to compositions already available in print. ${ }^{144}$ The promised essay never appeared, and it is obvious that it could not have lent any significant support to his thesis, which the preserved sources clearly refute. ${ }^{145}$ Of the four known compositions with the cantus firmus in the voice that can properly be described as the lowest, none exhibits ${ }_{3}^{6}$-chord parallelism, ${ }^{146}$ while the three specimens cited by Bukofzer ${ }^{147}$ are of limited applicability, as one has a sectionally migrant cantus firmus, ${ }^{148}$ and the two lower voices of the remaining pieces share the same range and cross frequently. ${ }^{149}$ All the other compositions mentioned by Bukofzer

142 Elsewhere (Coussemaker, Scriptorum ..., vol. IV, p. 295a) he mentions "Curiam Romanam et Francigenos et omnes musicales cantores" as authorities.
${ }^{143}$ Ferand, op. cit., pp. 145f, n. 1. It weakens Schmidt's interpretation (cf. n. 137 above) further.
${ }^{144}$ Geschichte des englischen Diskants, p. 102.
${ }^{145} \mathrm{Cf}$. pp. 23 f and 31 above. In view of the contrary musical evidence, Harrison has rejected the notion of "English discant" with cantus firmus in the lowest voice (Music in Medieval Britain, p. 152, n. 2).
${ }^{146}$ Cf. p. ... above.
147 Geschichte ..., pp. 114-118.
${ }^{148}$ The fragmentary Te Deum in MS Cambridge, Gonville \& Caius Coll. 334/727 (cf. p. 41 above). Bukofzer mentioned this circumstance and also pointed out that the same manuscript contains a Sanctus setting with the chant in the top voice. It is thus obvious that he did not see the evidence available to him in focus. Moreover, even that part of the Te Deum that has the cantus firmus in the lowest voice, though exhibiting a considerable number of ${ }_{3}^{6}$ chords, consists of more contrary motion than parallel motion between the lower parts. This, says Bukofzer, is "still within the realm of possible improvisation" ("Discantus", MGG III, col. 575). The word "still" indicates a fundamental misconception; strict parallelism is, of course, the exact opposite of improvisation, as Emest Trumble recently pointed out ("Authentic and Spurious Faburden", p. 13) apropos of fauxbourdon and faburden; in the parallel ${ }_{6}^{3}$-chord style of faburden the faburdener does not improvise, but, says the author of the treatise in MS London, B.M., Lansdowne 763, No. 16, "the plainsong hauntith his course" (Bukofzer, Geschichte des englischen Diskants, p. 152). Thus, Apfel's statement that faburden "is a special type of cantus-firmus setting, which prevails in many English compositions written in score from the time of the Worcester school to the fifteenth century" (Studien..., vol. I, p. 10) is incorrect. The clearest and most recent treatment of the tangled subject of fauxbourdon and faburden is Trumble's.

149 The Sanctus on fol. I of MS Cambridge, Gonville \& Caius Coll. 334/727 and No. 3 of MS London, B.M., Arundel 14; cf. p. 38 above. The Sanctus is nearly un-
are admittedly freely composed. With one exception, his examples antedate the English discant treatises by roughly a century.
"In view of the improvisatory practices of English discant and fauxbourdon," Bukofzer expressed surprise that the cantus firmus is so rarely carried in the bottom voice in chant settings contained in the old layer of the Old Hall manuscript. ${ }^{150}$ To explain the contradiction between the compositions and "English discant" he hypothesized that, in contrast to these res factae, "the improvised polyphonization may have been practiced without being written down" ${ }^{151}$ and that, on the other hand, "in notated compositions the cantus firmus no longer needs to lie in the tenor." 152 Since the so-called "English discant" was apparently practiced not only by improvising singers but also by composers, ${ }^{153}$ it seems impossible that such compositions were never written down. Conversely, if parallelism was all the treatises intended to teach (along with the sight system), why bother to address composers as well as singers? In fine, it is not true that the earliest English compositions in ${ }_{3}^{6}$-chord style "overwhelmingly bring the cantus firmus in the bottom voice," ${ }^{154}$ nor can it be said that for some two hundred years both theory and practice reflect "English discant" "in einer grossen Traditionslinie." ${ }^{155}$ (Bukofzer's explanation of the genesis of "English discant" as a result of the amalgamation of "gymel" with discant was admittedly unfounded 156 and has remained so.) Properly, the term "discant" can and should be applied to the great number of cantus-firmus settings notated in score, almost all of which avoid or restrict parallelism because they reflect the rules of discant. Bukofzer, having allotted "discant" to the parallel ${ }_{3}^{6}$-chord style, which arose in the conducti of the end of the 13th century, stands proper terminology on its head by in turn referring to such compositions as the chant settings in the oldest layer of the Old Hall manuscript as belonging "to the conductus type," 157 even though
readable, but what remains does not seem to support Bukofzer's implication that it favors parallel ${ }_{3}^{6}$ chords (Geschichte des englischen Diskants, p. 115). The other pieces, however, do happen to be two of the rare examples favoring parallel style in cantusfirmus settings.
${ }^{150}$ Bukofzer, Studies..., p. 49. The inscription of the first layer of Old Hall antedates the earliest evidence of fauxbourdon by ca. twenty years; cf. Besseler, Bourdon und Fauxbourdon, p. 13, and Trumble, op. cit., p. 22.
${ }^{151}$ Studies..., p. 49.
152 "Discantus", MGG III, col. 575.
153 Georgiades, Englische Diskanttraktate..., p. 31.
154 Bukofzer, Geschichte des englischen Diskants, p. 10.
${ }^{155}$ Ibid., p. 118.
${ }^{156}$ Ibid., p. 114.
${ }^{157}$ Studies..., p. 50 . Evidently, Ficker was the first to apply the conductus label to homorhythmic settings of parts of the Ordinary, regardless of the presence of a
conducti had ceased to be composed more than a hundred years before the first layer of the Old Hall manuscript was written.

Endless confusion has followed in the wake of Bukofzer's "English discant." ${ }^{158}$ Besseler, who accepts it, ${ }^{159}$ nonetheless finds no evidence of ${ }_{3}^{6}$-chord parallelism in English cantus-firmus settings prior to the appearance of fauxbourdon on the Continent. ${ }^{160} \mathrm{He}$ does point out, however, that a somewhat less rigid version of the style can be found in the freely composed English repertoire of the fourteenth century. ${ }^{161}$ Unquestionably, ${ }_{3}^{6}$-chord parallelism originated in the Latin conducti and cantilenae composed in England around the turn of the century, ${ }^{162}$ and here and there, especially in the first half of the fourteenth century, found its way into chant settings. ${ }^{163}$ Even in the Old Hall manuscript it is primarily in free compositions that extensive parallelism can be found. Under the circumstances, Harrison's assertion that "there cannot be much doubt that ... parallel movement [of the parts] is a survival of the earliest forms of parallel organum . . ." ${ }^{164}$ would seem open to question, precisely because parallel organum is a primitive "harmonization" (i.e. chordal multiplication) of a cantus firmus. The general avoidance of rigidity and unbroken continuity in the parallel style of conducti, cantilenae, et cetera, written in fourteenthcentury England lends additional support to the conclusion that this style is an outgrowth of the traditional English fondness for the interval of the third, ${ }^{165}$ which already predominates in the earliest known non-liturgical polyphony composed in medieval England.
cantus firmus, ("Die frühen Messenkompositionen der Trienter Codices", Studien zur Musikwissenschaft XI (1924), pp. 4f). In the same year, Handschin used this term for considerably earlier compositions with cantus firmi ("Eine wenig beachtete Stilrichtung...", Schweizerisches Jahrbuch für Musikwissenschaft I (1924)).
${ }^{158}$ The most recent examples can be found in Schmidt, "Zur Frage des Cantus firmus. . ."; Trowell, "Faburden and Fauxbourdon ..."; and volume III of the New Oxford History of Music.

159 Bourdon und Fauxbourdon, pp. 15 and 104f.
${ }^{160}$ Ibid., p. 107; also pp. 20 f and 14-15.
${ }^{161}$ Ibid., p. 107.
${ }^{162}$ Cf. p. 12 above. Both Kenney and Trumble fail to take note of this circumstance; while ${ }_{3}^{6}$-chord style has nothing to do with discant, it is incorrect to disclaim any connection between its appearance as faburden and "traditional English practices" (Trumble, op. cit., p. 18).

163 But to describe any such compositions as exhibiting "continuously parallel movement" (Harrison, "English Church Music...", p.95) attributes to them a rigidity they do not possess.

164 Harrison, "English Church Music . .", p. 89.
${ }^{185}$ Cf. p. 7 above. The interval of the tenth can be regarded as a third in octave transposition.

## APPENDIX

Worcester, Chapter Lib., Add. 68, Frag. XIX, fol, a2. (WF No.91)


## II

52

## EMENDATIONS:

Ex. 6: bar 15, 2nd note in top voice: read E insted of G .
Ex. 12: bar 30, 2nd voice: upon examination of the source the missing notes are:


## III

## The Question of Perotin's Oeuvre and Dates

From an abundantly cited passage in the treatise of the so-called Anonymus IV we know that Magister Perotinus abbreviated the Magnus Liber, composed by his predecessor Leoninus ${ }^{1}$. Friedrich Ludwig ${ }^{2}$ and, more recently, William G. Waite ${ }^{3}$ have pointed out that we have the good fortune of possessing concrete evidence of this process in twelve pages of the manuscript $F^{4}$. Most of the 155 snippets of discant polyphony that they con- * tain are extremely concise replacements of long passages in organal style.

Several of them, however, are substitute compositions for Leoninian discant sections. Surprisingly, most of these substitutes turn out to be exactly twice as long as the older passages, since the value of every tenor note has been doubled:

Exx. 1 and 2

${ }^{1}$ E. de Coussemaker, Scriptorum de Musica Medii Aevi . . ., Paris 1864, I, p. 342a.
Repertorium ..., Halle 1910, I, p. 94.
${ }^{5}$ The Abbreviation of the Magnus Liber, in: Journal of the American Musicological Society XIV, 1961, pp. 151-156.
4 The sigla for the manuscripts are those traditionally used; see F. Gennrich, Bibliographie der ältesten französischen und lateinischen Motetten, in: Summa Musicae Medii Aevi, II, Darmstadt 1957, pp. XXV ff.

While these replacements can hardly be characterized as abbreviations, they are nevertheless modernizations, inasmuch as they take the place of the fast, running rhythms of the original Dupla. The modern, more "measured" passages are evidently responsible for the longer note values of the tenor. There are several Organa that were largely recomposed in this manner, replacing the relatively unruly, barely contained rhythms of Leonin's settings.

This process exemplifies the original sense of the word "rhythm" in a particularly striking manner. Werner Jaeger has observed that the meaning derived from $\oint \dot{\varepsilon} \omega$ (to flow) is secondary. Originally, rhythm denoted "exactly that which imposes firm restraints on motion and flow..."s. What flows is time, which is shaped by rhythm. In this sense Perotin's manipulations are the result of a dynamic impulse to form, to dam the relatively rapid motion of the Leoninian idiom and apply order and measure to the flow of music. It has been said repeatedly that Perotinus abbreviated the Magnus Liber, because its chant settings were intolerably long ${ }^{6}$. They are long-no question about that; but this was obviously not the reason. Their length was considered to have ritual propriety in 1170, and liturgical practice did not change so as to occasion Perotin's substitutions. Moreover, he was himself the composer of many pieces largely in organal style; such works as his famous Quadrupla are of truly vast proportions. Perotin's abbreviations, then, are eloquent witnesses of changing concepts of musical style. Leoninus, says Anonymus IV, was "optimus organista", while Perotinus was "optimus discantor".

A handful-about half a dozen-of these 155 substitute passages stand out because of the particularly meticulous shaping of the ordines (phrases). F No. 435, for instance, is a short section consisting of 15 tenor notes. The composer, presumably Perotinus, has divided them into three groups of five notes each and designed a Duplum whose phrases, in view of their rhythmic and melodic shape, yield the form aab.

Ex. 3


In $F$ No. 415 the composer has 12 notes to dispose of in the tenor. Again they are divided into three equal groups. The identical endings of groups 2 and 3 produce identical phrase endings in the Duplum so that here the form is abb.

Ex. 4


Perhaps the most striking of all the substitutes is $F$ No. 421, in which the tenor likewise contains 12 notes:

Ex. 5


Here, the rhythmic content of all three phrases is the same, except for one note in the third phrase, which prevents unity from turning into monotony. Thus, the form is aaa'. However, it is also aba, since the first and third phrases end identically, though over different notes in the cantus firmus. Not only the grouping of the notes of the tenor, but the shaping of the Duplum makes it apparent that these three examples are not merely passages whose sole raison d'être is to be inserted somewhere in place of old-fashioned longer passages, but that they are in fact miniature pieces of music with a life of their own.

What we are witnessing here is in all probability the birth of that species of composition that Anonymus IV called Clausulae or Puncta ${ }^{7}$, of which he credited Perotinus with having written a great many. Hundreds of these have been preserved, constituting the first repertory of self-contained and independently shaped pieces of music with a cantus firmus. Several of the Clausulae treat the tenor as did the abbreviation substitutes, i. e. isochronously, with or without grouping. But it seems almost inevitable that the same tendency to write Dupla with balanced phrase designs that had caused the practice of grouping in the tenor would produce the idea of patterning, so abundantly realized in the Clausula repertoire.

The Clausulae are usually said to have preceded the Tripla and Quadrupla, the latter representing Perotin's crowning achievement, which he would not have been able to accomplish without prior extensive practice in two-part composition ${ }^{8}$. It would seem almost perverse to advance the contrary view. Without exception, all polyphonic music written prior to ca. 1190 consists of two voices only ${ }^{\boldsymbol{\theta}}$, while a large percentage of 13thcentury polyphony was written for three voices. Three-part writing is an evolutionary advance and the four-part Organa represent an exceptional feat. Yet, the Quadrupla and most of the Tripla are stylistically and notationally more conservative than the Clausulae ${ }^{10}$. The latter are concise pieces with rhythmic variety and complex phrase structure, the

[^28]former are compositions of monumental length, favoring the organal style and rich chordal sound. Iambic rhythms, which were not conceivable in the Leoninian idiom ${ }^{11}$ and are still entirely absent in Perotin's abbreviation of the Magnus Liber, do not appear in the Quadrupla and are still rare in the Tripla. In fact, their presumed presence may often be due to our misunderstanding of pre-modal square notation. Moreover, the discant sections of the Quadrupla contain conservative tenors that are not yet patterned. Tenor patterns other than $3 \mathrm{li} \mid$ and $2 \mathrm{si}|3 \mathrm{li}|$ (or $3 \mathrm{li} \mid 2$ si $\mid$ ) do not occur in any of the Tripla ${ }^{12}$.

Likewise, the progressive features of the Clausulae were only rarely incorporated into the rearrangements of the Magnus Liber. Thus, tenor patterns consisting of more than five notes, which already appear in $10 \%$ of the Clausulae in $W_{1}{ }^{13}$, still occur in only six discant sections of the Magnus Liber in $F$ (three of which were taken over from the Clausula repertory of $\left.W_{1}\right)^{14}$. Even $W_{2}$ shows no change in this respect ${ }^{15}$. A related phenomenon is the increasing rarity in Clausulae and Motets of conservative features, many of them probably of English origin, such as fondness for the harmonic interval of the third, Stimmtausch, regular foursquare periodicity, and four-part writing ${ }^{16}$.
The inevitable conclusion is that the Quadrupla and a good many of the Tripla must have preceded the Clausulae ${ }^{17}$. After all, the creation of polyphony for three and even for four voices would seem to be a less radical novelty -especially in view of the apparent English influence on Parisian composers around the turn of the century - than the notion of carving a segment out of a chant in order to compose an independent, self-contained piece of polyphony with precisely measured "divisions". To give a chant segment a firm shape so as to serve as the supporting part in a "monodic" composition - this is indeed a break with past attitudes. The Motet, offspring of the Clausula, was the "music of the future".
The approximate dates of the Quadrupla are known with fair certainty, because four-part composition is first mentioned at Notre-Dame in two episcopal edicts of 1198 and $1199^{18}$, which concern precisely those festivals for which these compositions are appropriate. It is a fair assumption that four-part singing, while a novelty, must already have been known in 1198. Since the first of these edicts relates to the feast of the Circumcision on New Year's Day, on which the Christmas Gradual Viderunt is also sung, it seems likely that Perotin's Quadruplum Viderunt had originally been written a few years earlier for Christmas (ca. 1196) and was still very much in the bishop's mind in 1198. The second Quadruplum, on the other hand, may well have been written in 1199 as a result of the edict of that year ${ }^{19}$.
${ }^{11}$ See E. H. Sanders, Duple Rhythm and Alternate Third Mode in the 13th Century, in: Journal of the American Musicological Society XV, 1962, n. 164.
${ }^{12}$ Ludwig, Repertorium, p. 65.
${ }^{13}$ Ibid. pp. 25-30. In the W1 version of the Magnus Liber the patterning of the tenor does not go beyond three notes ( $3 \mathrm{li} \mid$ ).
14 Ibid. p. 76.
${ }^{15}$ Ibid. p. 173.
${ }^{10}$ Sanders, Peripheral Polyphony of the 13th Century, in: Journal of the American Musicological Society XVII, 1964, pp. 264-266. Wz and Ma contain a number of two-part compositions that were originally written for three voices.
17 See ibid., n. 36.
${ }^{18}$ Cf. J. Handschin, Zur Geschichte von Notre Dame, in: Acta Musicologica IV, 1932, pp. 6 ff.
${ }^{19}$ F. Zaminer, Der Vatikanische Organum-Traktat . . ., Tutzing 1959 (Münchner Veröffentlichungen zur Musikgeschichte II), pp. 160-161, has suggested that the bishop's edict might refer to simple

Apart from four Conducti and the Quadrupla, Anonymus IV only singles out two Tripla (Alleluia Nativitas and Alleluia Posui adiutorium) as works by Perotinus. Other Tripla likely to have been composed by him are the Alleluia Pascha nostrum ${ }^{20}$ and the Responsory Sancte Germane. An important factor regarding the authorship of the latter is its position in three manuscripts. In $W_{1}$ it is the first of the Tripla and precedes the Alleluia Nativitas; in Mo these two works are also adjacent, while in F Sancte Germane appears together with the Alleluia Posui adiutorium. Moreover, Husmann has pointed out that Sancte Germane "is stylistically very close to the organa Alleluia 'Posui adiutorium' and Alleluia 'Nativitas' ${ }^{\prime 21}$. He has established further that it must have been written for St. Germain-1'Auxerrois ${ }^{22}$, which became Philippe-Auguste's church when he moved into the Louvre. Since the king evidently did not undertake this move until some time in the first decade of the 13 th century - very probably not before ca. 1204 -it would seem likely that Perotinus did not write the composition prior to that event. Thus, the Perotinian Tripla can reasonably be assigned to the last decade of the 12 th century and the first of the 13 th, since some of them must have preceded the creation of the Quadrupla ${ }^{28}$. Perotin's birth could therefore fairly be estimated to have occurred ca. 1165 .

The abbreviation of the Magnus Liber is not likely to have begun before the first decade of the 13 th century, not only because it attests to the growth of new stylistic concepts, but also because documentary evidence seems to suggest ca. 1190 as the terminal year * of Leonin's activity ${ }^{24}$. The creation of the Clausulae "sive puncta plurima meliora", for which Perotinus came to be known as "optimus discantor", began shortly thereafter; in the years around 1210, therefore, he must have perfected the new genre and experimented with the increasing variety of rhythm that came to be codified into the modal system ${ }^{25}$.

Unfortunately, it is impossible to hazard any guess how many Clausulae were composed by Perotinus. In all probability the clausula à 3 In odorem is one piece that can be attributed to him for internal stylistic reasons, because of its wide dissemination as a motet, and because of its placement in $W_{1}$ and $F^{26}$; in the former it is the only three-part Clausula, and in the latter it not only heads a group of five such compositions, but a motet version of it also opens the second motet fascicle, whose content is arranged neither liturgically nor alphabetically. It also heads the third motet fascicle of $W_{2}$. In addition, a tenor that has been called Perotinian is that of F No. $246{ }^{27}$. Motet versions of both of
parallelism at the fifth, octave, and twelfth. But the assumption that such a primitive technique should have been practiced in Paris is plainly untenable, especially in view of Zaminer's own hypothesis that the Magnus Liber began to be composed only five years later.
${ }^{20}$ Ludwig, Repertorium, p. 37; Sanders, Peripheral Polyphony, n. 83.
${ }^{21}$ The Enlargement of the Magnus liber organi . . ., in: Journal of the American Musicological Society XVI, 1963, p. 194.
${ }_{22}$ Ibid., pp. 194 and 202; idem, St. Germain und Notre-Dame, in: Natalicia Musicologica Knud Jeppesen . . , Copenhagen 1962, p. 35.
${ }_{23}$ Nothing precludes an assumption that Organa continued to be written for a number of years.
${ }^{24}$ G. Birkner, Notre Dame-Cantoren und -Succentoren..., in: In Memoriam Jacques Handschin, Strasbourg 1962, pp. 123-126.
${ }^{25}$ Cf. Sanders, Duple Rhythm, p. 283.
${ }^{20}$ Ludwig considered Perotin's authorship highly probable (Repertorium, p. 37).
${ }^{27}$ Husmann, Die drei- und vierstimmigen Notre-Dame Organa, Leipzig 1940 (Publikationen älterer Musik, 11. Jahrgang), p. XXII.
these pieces contain tell-tale traces of the notation of "alternate third mode", in which the first of two breves was altered; the same situation obtains in two motet versions of Mors, the only four-part Clausula ${ }^{28}$. There can be very little doubt that this piece was written by Perotinus. The notational evidence, while intriguing, is slight by itself. More compelling is the fact that all three manuscripts that contain (or contained) the two Perotinian Quadrupla also transmit the Clausula Mors, the only other cantus-firmus setting for four voices. Furthermore, Anonymus IV wrote that "Magister Perotinus fecit quadrupla optima sicut Viderunt, Sederunt . . .". The inference is surely justified that the two Organa were not the only four-part compositions by Perotinus; the meaning of the term "quadrupla" need not be restricted to "four-part Organa". Moreover, in $M a$ the motet version of Mors appears immediately before a motet derived from a discant section of the Alleluia Pascha nostrum. Finally, two other motets on the tenor Mors are preserved, one of which ${ }^{29}$ gives the cantus firmus exactly the same rhythmic arrangement as in the Clausula, while the other ${ }^{30}$ merely inverts the two ingredients of the pattern. Thus, both refer to the tenor of the Clausula as if to a binding, authoritative paradigm ${ }^{31}$.

The attribution of Mors to Perotinus has been challenged, "because (1) the tenor pattern is more complicated than those employed by Perotin and (2) it was converted into a triple motet...., whereas the other two organa quadrupla [sic] were given only one text each to serve for all their upper parts in their motet versions ..." ${ }^{32}$. But both reasons plainly carry negligible weight. 1. The Perotinian compositions named by Anonymus IV contain only three discant sections with a patterned tenor. It seems unnecessarily petty to deny Perotinus the requisite imagination for the invention of tenor patterns other than the two simplest ones that occur in the two Tripla Anonymus IV chose to mention ${ }^{33}$. Since he wrote "a great many Clausulae", it is not only safe, but proper to assume that their tenors are variously shaped ${ }^{34}$. Moreover, the tenor pattern d. !. | d. d. d. . . | appears in three English compositions preserved in $W_{1}{ }^{35}$ and in an Organum transmitted by all three Notre-Dame manuscripts ${ }^{36}$. There is nothing to suggest that it could not have been contemporaneous with the simplest and more common patterns; it is obviously related to them. 2. Since Mors is a Clausula, its conversion into a triple Motet parallels that of the Perotinian three-part Clausula In odorem into a double Motet ${ }^{37}$.

[^29]Apart from $W_{1}$ and $F$, only $S t V$ contains Clausulae; they may be dated not later than ca. $1220^{38}$. Their mostly rather complex tenor patterns represent the continuation of a trend undoubtedly set in motion by Perotinus ${ }^{39}$. There is no proof that he can be held responsible for the sophisticated technique that makes these pieces so attractive, but a number of circumstances nevertheless suggest the possibility. Two concordances link the StV Clausulae with the Notre-Dame repertoire. One of these (StV No. 15) concords with $F$ No. 130, which not only has a famous Perotinian tenor ${ }^{40}$, but also is the source Clausula for the most extensively known of all Motets, which goes back to Perotin's time ${ }^{41}$. This is one of the three double Motets contained in $F$, where it is singularly notable, because a progressive sixth-mode Triplum is expertly and meaningfully combined with two slower voices ${ }^{42}$. It is significant that the most advanced Motet in $F$, a composition by "a first-rate musician" ${ }^{43}$, is one of the two concordances. In the third Motet fascicle of $W_{2}$ it is the second piece, preceded by the motet derived from the three-part Clausula In odorem. The other Notre-Dame concordance of a StV Clausula (No. 40) is also already in F; it is not, however, one of its Clausulae, but one of the three Latin Motets at the end of the first Motet fascicle. These represent a style that I have elsewhere described as "peripheral to the Notre-Dame school, though originally it also seems to have been practiced by at least some of its composers" ${ }^{44}$. The poetry of two of them is known to have been written by two famous Parisians ${ }^{45}$. All three pieces belong "to the most significant Motets of the older repertoire; their numerous concordances show that they maintained the widest dissemination even in the very late periods of the practice of this art"46. In $W_{2}$ they ${ }^{47}$ precede a Motet derived from a discant section of an Organum by Perotinus. Evidently, Perotin's authorship of StV No. 40 is by no means impossible. Finally, it is noteworthy that a number of times phrases appear in the $\operatorname{StV}$ Clausulae which are remarkably similar to phrases in a composition by Perotinus. For example:

Ex. 6

${ }^{38}$ According to ibid., p. 145. It should also be pointed out that in view of the erroneous notation of the tenor of $\operatorname{StV}$ No. 2 (ibid., p. 148) the sixth gathering of the manuscript (which contains the Clausulae) is very probably a copy.
${ }^{39}$ lbid., p. 85.
${ }^{40}$ Husmann, Die drei- und oierstimmigen Notre-Dame Organa, p. XXII.
${ }^{41}$ Ludwig, Repertorium, pp. 121, 399, and 404.
${ }^{42}$ Ibid., p. 117.
43 Ibid., p. 122.
${ }^{4}$ Sanders, Peripheral Polyphony, p. 277.
${ }^{45}$ Ludwig, Repertorium, pp. 106 f.
${ }^{46}$ Ibid., p. 106.
${ }^{47}$ Actually only two; but the third was very probably on one of two missing folios that originally preceded fol. 134.

Ludwig has called the StV Clausulae "the work of a creative mind active during the reign of king Philip Augustus [d. 1223]; having been vividly stimulated by Perotinus, he continued the Perotinian heritage in an independent and original manner" ${ }^{48}$. It seems entirely possible that at least some of these compositions represent the late stage of Perotin's career, his "third period", to use an expression usually applied to the late works of Beethoven.

There remains the difficulty that the two theorists who mention Perotinus say nothing about him as a composer of Motets, although they both wrote at a time when the Motet flourished. A few years ago I suggested that originally the term "Motet" must have designated a Clausula with French poetic text for the upper part(s), that only thereafter did it come to be applied to all texted Clausulae, even if they were older and probably used to be known as Clausulae (or discantus) and not as Motets, and that therefore Perotin's death need not have occurred as early as 1200/05 ${ }^{49}$. This view has been questioned on the ground that the French motet presumably emerged around $1205^{50}$. Such an assumption - which involves the assignment of the same date to the StV Clausulae - largely depends on a Motet containing a refrain that also appears in the Roman de Galeran. "The refrain", says Tischler, "happens to be so specific that its inclusion in the motet must mean that the latter was composed while the roman was very fashionable . . ." ${ }^{51}$. Apart from the fact that the specificity of a story about a young woman bilked of her lover by an older woman is a moot point, the Roman de Galeran is about ten years younger than Tischler asserts ${ }^{52}$, so that even this criterion would not make it mandatory to date the rise of the French Motet earlier than ca. 1220, some ten years perhaps after the appearance of the first Latin Motets and more or less contemporary with the gradual waning of organal composition. * Thus, nothing prevents the assumption that Perotinus lived from ca. 1165 to ca. $1225{ }^{53}$.

From a technical point of view alone, Perotin's accomplishments are staggeringly brilliant. It was he who for the first time wrote polyphony not just for two voices, but "Tripla plurima nobilissima" and even compositions for four voices. He modernized the Magnus Liber; he gave greater strength and precision to the rhythmic component of music; he invented a new musical genre - the Clausula; he initiated the tradition of presenting Clausula tenors in rhythmic patterns; it was doubtless his thought to present a chant melisma two or more times in one Clausula in order to produce a well-proportioned composition; and we need not shrink from crediting him with the introduction of iambic rhythms, with

* the codification of the modal system and with many features of its ingenious notation ${ }^{54}$.

[^30]In addition, his voices exhibit a balanced phrase design of exquisite sophistication, both in his vast Organa and in the more intimate Clausulae. And finally, certain aspects of his style are indicative of resourceful assimilation of English musical traditions.

The extraordinary greatness of Perotinus Magnus rests essentially on qualities he shares with the other outstanding "classical" masters among European composers. Like them he fulfilled the crucial function of focussing diverse "national" influences, creating wellorganized, large-scale masterpieces that, stylistically and formally, are the consummate high points of the period, and bequeathing a significant artistic heritage with diversified potentialities. His activity in Paris coincided with the erection of Notre-Dame. Both the cathedral and the oeuvre of Magister Perotinus are climactic monuments of the classic Gothic ${ }^{56}$.

[^31]
## IV

# THE MEDIEVAL MOTET* 

Creatori serviunt omnia subiecta Sub mensura, numero, pondere perfecta. Ad invisibilia per hec intellecta Sursum trahit hominem ratio directa. Walter of Chatillon ${ }^{1}$

The history of the medieval motet is rooted in Leoninus's epochal volume of polyphonic compositions known, according to the testimony of Anonymus IV, as the Magnus liber organi de gradali et antifonario. His settings systematized a stylistic duality that had emerged in the polyphony of the early years of the twelfth century. A theorist, whose treatise deals with polyphonic practices related to those of the so-called St.-Martial school, defines the two procedures, which he calls discantus and organum:

Et hoc etiam omni cura maximaque cautela cavendum est ne discantus plures punctos habeat quam cantus ... Aliud enim discantus, aliud organum esse cognoscitur. Proinde cum deflorare finem clausule volueris, vide ne nimios modulos pernimium sepius discantui misceas ne, cum discantum facere putaveris, organum edifices et discantum destruas ... Inter discantum vero et organum hoc interesse probatur quod discantus equali punctorum numero cantui suo per aliquam semper consonantiarum respondeat aut compositio facit unisonum; organum autem non equalitate punctorum sed infinita multiplicitate ac mira quadam flexibilitate cantui suo concordat. ${ }^{\text {a }}$

As the quoted excerpt indicates, a frequent function of organal style with its wondrous flexibility was to serve as cadential elaboration for a discantus ${ }^{3}$. The Southern French polyphony of the first half of the twelfth century devoted itself almost exclusively to the setting of versus. Leoninus, on the other hand, composed a strictly liturgical cycle, in which polyphony embellished the lengthy solo portions of responsorial Gregorian chants. While in the second half of the century the distinction between discantus and organum was maintained in the organa, the application of discant or organal style depended on the fairly rigid division of the cantus firmus into melismatic and syllabic portions.

The cantus firmus itself is not a whole, and therefore a Leoninian organum is not a piece of music, whose «form» might be articulated with cadential flourishes. The compositional procedure is circumscribed by the chant and thus differs fundamentally from the tradition of versus and conductus. No matter how much

[^32]of a strain the polyphony imposes on the cantus firmus, it is the chant in its entirety (including the monophonic portions) that is still the only entity with integrity. The first organa to break the faith with the Gregorian original are the English Alleluia settings of the 13th century, many of which are shaped by independent structural principles ${ }^{4}$.

To a considerable extent the dupla in the organal portions of Leoninus's chant settings consist of chains of phrases (set off from each other by «divisiones») that tend to relate to one another in length and melodic content. More often than not the phrases add up to four beats each ${ }^{5}$.
Ex. 1 The following identifications should be added to Example $1: W_{1}$, f. $17(13) ; F$, f. $65 ; W_{2}$, f. 47.


Discant style as a rule no longer sets note against note, but «super quamlibet notam firmi cantus ad minus due note, longa scilicet et brevis, vel aliquid his equipollens ut quatuor breves vel tres cum plica brevi, proferri debent $>^{6}$. Several of the presumably Leoninian discant settings of longer melismas divide the notes

* Cf. Ernest H. Sanders, "Tonal Aspects of $13^{\text {th }}$-Century English Polyphony», AMl XXXVII (1965), 33/34.
${ }^{5}$ In fact, a comparative study of ornamental variants in otherwise identical passages in the three extant versions of the Magnus Liber indicates that the rhythmic reading of seemingly ambiguous ligatures is usually determined by the periodicity of the duplum. The meaning of ligatures is variable and the variability is not yet codified into a modal system. To a degree, then, ligatures in organal passages are comparable to the agrements of the $17^{\text {th }}$ century.
${ }^{\text {b }}$ Discantus Positio Vulgaris, CS I, 95a; Hieronymus de Moravia O. P.: Tractatus de musica, ed. Simon M. Cserba, Regensburg 1935, 191 (Freiburger Studien zur Musikwissenschaft 2. II) similarly CS I, 96a s; Cserba, op. cit., 193. The primacy of trochaic rhythm is doubtless due to the fact that in «second-species counterpoint» the note that in the added voice intervenes between two vertical consonances is often dissonant and therefore was recognized as a lesser value.
of the cantus firmus into groups that reflect rather faithfully the ligature groupings of the monophonic chant source ${ }^{7}$. Other cases, however, apply the divisiones according to extraneous musical principles that reveal a significant independence from the chant. Thus, quite a few discant sections exhibit tenors whose pitch content is divided in such a way as to produce cadentially related groups. Sometimes the internally repetitive design of a chant melisma suggests such a procedure.
Ex. 2 The following identifications should be added to Example 2: $W_{1}$, f. 25 (21); F, f. 99.

do--


But frequently cadential correspondences are imposed on the cantus firmus.
Ex. 3 The following identifications should be added to Example 3: $W_{1}$, f. $33^{*}\left(29^{\prime}\right)$; F, f. $111^{*}$.


Elsewhere the treatment of the chant yields melodic forms shaped by identical or sequential correspondences.
Ex. 4 The following identifications should be added to Example 4: $W_{1}$, f. $33^{*}(29)^{\prime} ; F$, f. $111^{v}$.

${ }^{1}$ Manfred F. Bukofzer, «Discantus», MGG III (1954), 563.

Ex. 5 The following identifications should be added to Example 5: $W_{1}$, f. 38 (32).


In many such cases the duplum surely helps to influence the layout of the tenor. Quite often, however, the articulation of the tenor melisma seems to be determined solely by the melodic design of the duplum, which in Ex. 6 has an aba'b' form, while in Ex. 7 it skilfully joins an organal ending with the preceding discant passage by means of two related phrases.
Ex. 6 The following identifications should be added to Example 6: $W_{1}$, f. $\mathbf{2 9}^{v}\left(25^{v}\right) ; F$, f. $106^{v} ; W_{2}$, f. 70.


- -mus

Ex. 7 The following identifications should be added to Example 7: $W_{1}$, f. 20 (16); F, f. 73*, $W_{2}$, f. 59.


The notes of the cantus planus have no intrinsic rhythmic definition in discant style. In their isochronous progression they continue to be faithful to the tradition of plain chant. Thus, they appear unmeasured, though each is overarched by «longa scilicet et brevis, vel aliquid his equipollens», long and breve - in that order - being the only precisely mensurable units of the emergent musica mensurata. The author of the Discantus positio vulgaris illuminates this situation with the significant remark that «omnes note plane musice sunt longe et ultra mensuram eo quod mensuram trium temporum continent» ${ }^{8}$.

While the upper voice defines the equality of the notes of the plain chant, the latter in turn often affects the phraseology of the duplum. In their length the phrases are chained to the length of each group of notes in the tenor. Just as individual duplum phrases of organal passages tend to have a length of four beats,

[^33]groups of four tenor notes are fairly frequent in discant style ${ }^{9}$. Yet, there are innumerable phrases sustained by an uneven number of tenor notes. Since the concept of «pausa» had not yet achieved mensural formulation, it is of course possible that such phrases were sometimes extended by a rest, as if the tenor groups contained an additional note ${ }^{10}$; but this is by no means certain ${ }^{11}$. A tendency towards a rationally balanced phrase design in both organal and discant passages is apparent; yet, at this stage of the evolution of mensural music and of its notation a degree of near-improvisational flexibility must have been possible as the performer linked the phrases of a duplum together.

Evidently it was Perotinus who eliminated these potential uncertainties by disassociating the problem from the liturgical organum. An abundantly cited passage in the treatise of Anonymus IV informs us that Magister Perotinus abbreviated the Magnus Liber ${ }^{12}$. We have the good fortune of possessing concrete evidence of this process in twelve pages (fol. 178-183') of manuscript Firenze, Biblioteca Laurenziana, plut. 29,1 (F). Most of the 155 snippets of discant polyphony that they contain are extremely concise replacements of long passages in organal style ${ }^{13}$. Several of them, however, are substitute compositions for earlier discant sections. Surprisingly, most of these substitutes turn out to be exactly twice as long as the older passages, since the value of every tenor note has been doubled ${ }^{14}$.

[^34]Ex. 8 The following identifications should be added to Example 8 (a): $F$, f. 123v.
(a)


The following identifications should be added to Example 9 (a): $F$, f. 74.
Ex. 9


The following identifications should be added to Example 9 (b): F, No. 304 (f. 178).
While these replacements can hardly be characterized as abbreviations, they are nevertheless modernizations, inasmuch as they take the place of the fast, running rhythms of the original dupla. The modern, more «measured» passages are evidently responsible for the longer note values of the tenor. There are several organa that were largely recomposed in this manner, replacing the relatively unruly, barely contained rhythms of Leoninus's settings.

This process exemplifies the original sense of the word «rhythm» in a particularly striking manner. The word's primary meaning denoted «exactly that which imposes firm restraints on motion and flow » ${ }^{15}$. Perotinus's manipulations are the result of a dynamic impulse to form, to dam the relatively rapid motion of the Leoninian idiom and apply order and measure (ordo et mensura) to the flow of music. A new Gothic style emerges from the declining Romanesque ${ }^{16}$.

A handful - about half a dozen - of these 155 substitute passages stand out because of the particularly meticulous shaping of the ordines (phrases). F No. 435, for instance, is a short section consisting of 15 tenor notes. The composer, presumably Perotinus, has divided them into three groups of five notes each and designed a duplum whose phrases, in view of their rhythmic and melodic shape, yield the form aab.

Magnus Liber ( $W_{1}$ ); they occur somewhat more often in the $F$ and $W_{2}$ versions of the Magnus Liber and, especially, in the tripla and quadrupla.
${ }^{15}$ Werner Jaeger, Paideia I, Berlin 1934, 173 ss.
${ }^{14}$ Cf. Otto von Simson, The Gothic Cathedral, New York 1964, 45/46.

Ex. 10 The following identifications should be added to Example 10: $F$, No. 435 (f. 183).


In $F$ No. 415 the composer had twelve notes to dispose of in the tenor. Again they are divided into three equal groups. The identical endings of groups 2 and 3 produce identical phrase endings in the duplum so that here the form is abb.
Ex. 11 The following identifications should be added to Example 11: F, No. 415 (f. 182').


Perhaps the most striking of all the substitutes is $F$ No. 421, in which the tenor likewise contains twelve notes.
Ex. 12 The following identifications should be added to Example 12: F, No. 421 (f. 182').


Here, the rhythmic content of all three phrases is the same, except for one note in the third phrase, which prevents unity from turning into monotony. Thus, the form is aaa'. However, it is also aba, since the first and third phrases end identically, though over different notes in the cantus firmus. Not only the grouping of the notes of the tenor, but the shaping of the duplum makes it apparent that these three examples are not merely passages whose sole raison d'être is to be inserted somewhere in place of old-fashioned longer passages, but that they are in fact miniature pieces of music with a life of their own.

What we are witnessing here is in all probability the birth of that species of composition that Anonymus IV called clausula ${ }^{17}$ or punctum, of which he credited Perotinus with having written a great many. Hundreds of these have been preserved, constituting the first repertory of self-contained and independently shaped pieces of music with a Gregorian cantus firmus ${ }^{18}$.

[^35]Several of the clausulae treat the tenor as did the abbreviation substitutes, i:e. isochronously, with or without regular grouping. But it seems almost inevitable that the tendency to write dupla with balanced phrase designs that had caused the practice of regular grouping in the tenor would lead to the shaping of more clearly defined groups. The first distinct pattern to emerge is a result of a sharper, «masculine» delineation of the feminine group of four longae NBa, which becomes NBb. The hiatus separating two groups of four longae has become a clearly defined rest, articulating an ordo. Rhythm and phraseology of the dupla are usually as steady and foursquare as they are in many of the abbreviation substitutes. A few such clausulae already crop up as discant passages in the version of the Magnus Liber contained in Wolfenbüttel, Herzog August Bibliothek, Ms. Helmstedt 628(677) ( $W_{1}$ ); it seems unlikely that Leoninus composed them.
Ex. 13 The following identifications should be added to Example 13: $W_{1}$, f. $\mathbf{2 6}^{\circ}\left(22{ }^{\text {² }}\right.$; Contrafactum: $F$, f. 106.


Ex. 14 The following identifications should be added to Example 14: $W_{1}$, f. 41 (35).


Ex. 14 demonstrates the increasingly utilized device of bridging two tenor phrases with a plica in the duplum; however, as it was customary in such cases to place a divisio after a plica, it is evident that the two joined phrases are nonetheless regarded as distinct entities. The long phrase in the following example represents a further step in the evolution ${ }^{19}$ :
Ex. 15


Perotinus «fecit clausulas sive puncta plurima meliora quoniam optimus discantor erat», it is evident that organal passages are not clausulae. It cannot be maintained, therefore, that the theorist's statement is applicable «to sections of both types» (Gustave Reese, Music in the Middle Ages, New York 1940, 298 n. 18; cf. etiam Richard L. Crocker, A History of Musical Style, New York etc. 1966, 76).
${ }^{10}$ One of the substitute abbreviations ( $F$ No. 352) is similarly advanced.

$W_{1}$, f. 24 (20).


A second pattern NBc resulted from the association of the duplex longa with the pattern consisting of three longae. It occurs once in Perotinus's triplum Alleluia Nativitas and three times in the triplum Alleluia Pascha nostrum, which is almost certainly also by Perotinus. The converse of this formula, i.e. NBd was nearly contemporaneous and soon overshadowed its twin. Two further relatively early patterns using only longae NBe and its variant NBf occur in the clausula a 4 Mors, a composition that is in all probability likewise by Perotinus ${ }^{20}$.

The $W_{1}$ phase of clausula composition produced one piece for four ${ }^{21}$, one for three (In odo, again almost certainly by Perotinus), and a great many for two voices. The often expressed view of the clausulae for two voices as preparatory studies for the tripla and quadrupla seems to contravene the evolutionary evidence ${ }^{22}$. Yet, the question remains why the considerable achievement of writing for three or four parts was abandoned so quickly after its realization. The answer ${ }^{23}$ requires a lengthy detour, since it is intimately bound up with the problem of the function of the clausulae. Their apparent ontological enigma has given rise to a number of suggestions in musicological literature. What we actually know is very little; yet, it may be enough: (1) In the $F$ and $W_{2}$ (Wolfenbüttel, Herzog August Bibliothek, Ms. Helmstedt 1099 [1206]) versions of the Magnus Liber clausulae turn up as replacements of or additions to older passages; (2) clausulae were converted into motets by the addition of a Latin or French poetic text to the duplum ${ }^{24}$.

In view of the fact that clausulae were used as substitutes, Friedrich Ludwig concluded that all the contents of the 5th and 6th fascicles of $W_{1}$ and of the 5th fascicle of $F$ were «Ersatzstücke» or «Ersatz-Kompositionen», supporting the argument with Anonymus IV's statement that Leoninus's Magnus Liber «fuit in usu usque ad tempus Perotini Magni, qui abbreviavit eumdem et fecit clausulas

[^36]sive puncta plurima meliora» ${ }^{25}$. Since none of the 40 clausulae in the manuscript Paris, Bibliothèque Nationale, fonds latin 15139 (StV) turn up as replacements in München, Bayerische Staatsbibliothek, Ms. gallo-rom. 42 and related fragments ( $M \ddot{u} A$ ) or $W_{2}$, which contain organa as well as motets - some of them derived from $S_{t} V$ clausulae -, Ludwig, having linked clausulae with a replacement function, made no such claim for the St $V$ pieces, which he called «Melismen» ${ }^{\boldsymbol{2 6}}$. But even relatively few of the clausulae in $W_{1}$ and $F$ were incorporated into organa. Approximately one third of the collection in $W_{1}$ found its way into the $F$ version of the Magnus Liber; in turn, only about a third of the discant sections in the Magnus Liber in $F$ also occur in the clausula fascicles of $W_{1}$. The practice of substitution declined further in the $W_{2}$ version of the Magnus Liber; a mere $5 \%$ of the $F$ clausulae turn up in $W_{2}$, of whose discant sections only $8 \%$ concord with the clausula fascicle of $F^{27}$. Several other factors argue against the view that all clausulae were intended as replacements. In the first place, Anonymus IV says nothing whatever about their function. Secondly, there are the liturgically meaningless multiple settings (as many as 22 in one case) of certain cantus firmi taken from chants that are sung once a year ${ }^{28}$. Thirdly, for a number of clausulae there are no appropriate organa into which they could be fitted ${ }^{29}$, and one of them (Nusmido!) presents its plain chant melisma backwards, while quite a few offer fitting problems of one sort or another. Finally, the fact that in all three manuscripts ( $W_{1}, F, S t V$ ) the clausulae are fairly consistently arranged in accordance with the liturgically appropriate order of their tenors hardly bespeaks any inevitable ritual function. The arrangement was that of the Magnus Liber, the matrix of the clausula, and it was therefore traditional, convenient, and obvious; moreover, the almost exclusively French motets in $M \ddot{u} A$, many of which have source clausulae, are still arranged in accordance with the same principle.

Evidently, the clausulae constituted a pivotal phenomenon. Their availability as substitutes, decreasingly utilized, points to the past, while their adaptation as
${ }^{25}$ F. Ludwig, «Studien über die Geschichte der mehrstimmigen Musik im Mittelalter III *, SIMG VII (1905/1906), 516; id., Repertoriwn, 23, 78. But both the internal evidence and Anonymus IV's statement indicate that, properly speaking, the abbreviation substitutes are not clausulae.
${ }^{26}$ Ludwig, Repertorium, 143 ss.
${ }^{27}$ Under these circumstances the probability of their use as substitute insertions in monophonic chants (Heinrich Husmann, Die drei- und vierstimmigen Notre-Dame-Organa, Hildesheim und Wiesbaden 1967, xxxis [Publikationen älterer Musik XI]), while an initial possibility, certainly also diminishes.
${ }^{20}$ Georg Kuhlmann has shown that the rhythmic patterning of Gregorian melismas at times produced melodically convincing subdivisions, bestowing on the cantus firmus not only rhythmic, but also melodic form (Die zweistimmigen französischen Motetten des Kodex Montpellier I, Würzburg 1938, part I, chapter I [Literarhistorisch-Musikwissenschaftliche Abhandlungen I]). Yet, the numerous exceptions forbid consideration of this phenomenon as a stylistic principle that accounts for the puzzling preference given by Notre-Dame composers to certain cantus firmi.
${ }^{19}$ Husmann, op. cit., xxxi.
motets explains their continued cultivation. It is, of course, true that a good many of them are not known as motets and were probably not equipped with a text. Yet, on the whole, clausulae, especially those with patterned tenors, doubtless came to be viewed as potential motets. Ludwig's observation that the StV clausulae «waren trotz ihrer liturgischen Anordnung meist anscheinend von vornherein nur als Kompositionsstudien für die Vermehrung des französischen Motettenrepertoires gedacht» ${ }^{30}$, doubtless applies to earlier clausulae as well. Thus, Yvonne Rokseth considered Mors and most of the clausulae for three voices as «canevas de motets» ${ }^{31}$, though for this particular group of compositions the evidence unfortunately indicates her to have been wrong, since out of a total of 30 organa and 13 clausulae for more than two voices in $W_{1}$ and $F$ only five discant sections and five clausulae were turned into motets ${ }^{88}$.

Nevertheless, it was Mme. Rokseth who suggested that the StV clausulae were motets converted into substitute clausulae, since it seemed to her strange that, in contrast to the collections in $W_{1}$ and $F$, all the clausulae should have been turned into motets, all should have been equipped with French poetry, and nearly all the motets should have been known by the person who entered their poetic incipits in the margins of the manuscript ${ }^{33}$. But neither her reasoning nor her conclusion is particularly convincing; if anything, the circumstances seem to compel the opposite deduction. Moreover, there is the case of StV No. $1=$ motet 479/480, which was in turn made into a Latin contrafactum ( $481 \mathrm{a} / 481 \mathrm{~b})^{34}$. Four of the manuscripts preserving the motet do not identify its tenor properly; it is correctly labeled only in $S t V$ and, partly, in one of the motet codices ${ }^{35}$. This is surely one bit of evidence that makes the priority of the motet unlikely. What is more revealing is the fact that only in the clausula are the last eight notes of the cantus firmus accurately given, while the citation of two halves of a refrain at the beginning and end of the French motetus («motet enté») each phrase beginning with the same group of five notes - caused the pitch content of the penultimate tenor ordo to be slightly altered so as to agree with its beginning ${ }^{88}$. There can hardly be any doubt that the textual frame provided by the refrain citation made the musical similarities in the duplum more emphatic

[^37]and in turn caused the tenor to be «framed». All the evidence therefore supports Manfred Bukofzer's assertion that the St $V$ «melismas» are «echte, wenn auch späte Clausulae» ${ }^{37}$.

There are 21 clausulae in $F$ that have been described as «so difficult to transcribe that it is clear that their music was first composed to serve a text» ${ }^{\mathbf{8 8}}$; their notational problems are presumed to be «the result of a faulty and basically unsuccessful attempt to convert the motet's notation cum littera into the ligatures of notation sine littera of the clausula» ${ }^{38}$. This argument, too, seems insufficiently supported. Apart from the fact that for four of these pieces no motets are known, the notation of most of them, while somewhat erratic because of their idiosyncratic liveliness, presents no insuperable problems. It must also be remembered that the act of notating potential polyphonic music was in itself a valued and essential skill; just as much as Anonymus IV refers to a certain Petrus as «notator optimus» ${ }^{40}$, there were surely «notatores peiores».

The assumption that some motets were sources for clausulae conflicts with the observable evolutionary trends. Moreover, it is the very matter of notation that casts doubt on such theories. It is well known that the notational fixation of durational values originated in melismatic polyphony. This is true not only of the trochaic premodal beginnings of musica mensurata, but also of the modal system, whose notational features are not demonstrable before the corpus of clausulae ${ }^{41}$. The precedence of melismatic music in the fixation of rhythm is further proved by the fact that for several decades the $13^{\text {th }}$ century possessed no notational symbol with which to express rhythms in music «cum littera». While in a culture whose continuity largely depends on memory and oral tradition, habits of writing and reading differ from ours, to identify the rhythm of an upper voice of a motet from its notation in one of the Notre-Dame manuscripts is a task that could hardly have been less perplexing to a musician of the early $13^{\text {th }}$ century than it is to us ${ }^{42}$.

[^38]Under these circumstances it seems difficult to imagine the composition or the rehearsing of a motet without the aid of a melismatic model ${ }^{43}$. (The marginal annotations in the StV manuscript need not be regarded as puzzling; they are easily explained in this light, especially as the arrangement of the clausulae generally parallels that of the motets in such a manuscript as MüA.) As soon as syllabic notation began to evolve rhythmic symbols, clausulae were no longer necessary and fell into desuetude ${ }^{44}$.

The tradition of prose and prosula as well as the medieval concept of the consanguinity of music and poetry make it inevitable that poetic text should have been applied to many clausulae. They were, as it were, predestined to be wedded to appropriate verses. The combination of troping and polyphony had already yielded two main types, of which one restricted polyphonic elaboration to the inserted or added tropes, while the other placed the textual elaboration in the upper voice(s) over the complete cantus firmus - or the complete solo portion - with its text. In the one case only the tropes were set polyphonically, while in the other the tropes were in effect superimposed on the chant, producing troped organa ${ }^{45}$.
repertoire, which contains no clausulae, is in all cases written to allow performance from the book. By the beginning of the 14th century even chants, traditionally memorized, were no longer necessarily performed from memory. Cf. Frank Ll. Harrison, Music in Medieval Britain, London 1958, 102 s.
${ }^{48}$ This situation increases the improbability of the hypothesis that certain clausulae must be converted motets because their notation is difficult. For two cases that seem to indicate that scribes of motets (sometimes?) utilized melismatic models see plate $4, \mathrm{n} .74$ below, and Sanders, «Duple Rhythm», 279 n. 147. It might be apropos to point out that two hundred years earlier melismatic notation had at times been attached to syllabic phrases notated in campo aperto, to help clarify their pitch content; examples of doubly notated proses still crop up in $13^{\text {th }}$-Century manuscripts; cf. Andreas Holschneider, Die Organa von Winchester. Studien zum ältesten Repertoire polyphoner Musik, Hildesheim 1968, 88-91, 149-151.

4 No direct evidence supports the suggestion that clausulae were performed during the Canon after the Sanctus and Benedictus, or, if they had tenors taken from Office responsories, as Benedicamus substitutes (Harrison, op. cit., 123-128). Since, according to this theory, clausulae were chosen for such purposes on the basis of the liturgical appropriateness of their tenors, the question naturally arises why for such a major feast as that of St. Stephen's, for which Perotinus had written his quadruplum «Sederunt», only four clausulae exist, while the feast for which the other quadruplum was composed is endowed with 31. The question of liturgical relevance becomes more problematic if the theory is extended to the abbreviation substitutes on the ground that several that set segments of one chant show some motivic relationships (id. in: «Symposium: Das Organum vor und außerhalb der Notre-Dame-Schule», Bericht über den neunten internationalen Kongress Salzburg 1964 der Internationalen Gesellschaft für Musikwissenschaft II, Kassel etc. 1966, 69/70). But motivic unification not infrequently extends to successive substitutes based on liturgically unrelated tenors for the simple reason that similar melodic progressions in two or more tenors will of course often produce similar counterpoints. In any case, it seems a startling assumption that texts such as «Nive Cundiores Ebore Ria Et filio» should have been sung as Benedicamus substitutes. Surely, these little snatches were intended for the abbreviation or modernization of the Magnus Liber and for nothing else.
${ }^{45}$ The Worcester Alleluia settings represent a unique combination of both procedures.

It was this latter procedure that was restricted by the Notre-Dame school to the clausula repertoire, i.e. to the melismatic solo portions of responsorial chants and of the Benedicamus domino. The earliest «troped clausulae» derive the manner of applying tropic poetry from the troped organa. A passage from one of the latter, Veni doctor previe ${ }^{46}$, will demonstrate the typical assonances of the two texts:
\(\left.$$
\begin{array}{llll}\begin{array}{l}\text { Duplum \& } \\
\text { Triplum }\end{array}
$$ <br>

Tenor:\end{array}\right\}:\)| Tu patri tu filio | compar in imperio |
| :--- | :--- |
| tu -- <br> cuius ad auxilium <br> -- rum | vota pendent omnium. | | commune solatium, |
| :--- |
|  |
|  |
|  |
|  |
| ut pari concordia sana saucia, |
| conet oris gloria. |

The text of the motet version of the clausula Ex semine from Perotinus's triplum Alleluia Nativitas (ex. 16) tropes the two words of its cantus firmus similarly.

The following identifications should be added to Example 16: $W_{1}$, f. 11 (7); F, ff. 32, 129, 12; Ex. $16 \overline{W_{2}}$, f. $16^{\top}, 18,20^{+} ;$Mo, f. 11.

${ }^{46}$ The practice of applying the motet label to troped organa such as Veni doctor previe and Beatis nos adhibe ( $F$, fol. 250) or their St.-Martial prototypes (see Stäblein, «Saint-Martial », 1270 s) is terminologically inexact and anachronistic, even though Veni doctor previe quite properly appears in the first motet fascicle of $F$ (fol. $390^{\prime}$ ), where it is the lone representative of a vanishing genre.

## $E x$ semine

Abrahe, divino
Moderamine,
Igne pio numine producis, domine,
Hominis salutem,
Paupertate nuda,
Virginis nativitate de tribu Iuda.
Iam propinas orum
Per natale novum,
Piscem, panem dabis,
Partu sine semine ${ }^{47}$.
The poem adapted to the clausula Nostrum from the presumably Perotinian triplum Alleluia Pascha nostrum reflects similar principles; in fact, in its uncompromising use of «um» as the sole rhyme it goes beyond the Ex semine poem. Both motets begin the textual trope only as the tenor starts the actual melisma on its last syllable. Compared to the lively declamation of the rest of the two motets, the first phrase of each, retaining the relatively melismatic texture of the clausula, sounds rather like a short introductory conductus melisma ${ }^{48}$.

The prosody of Ex semine is governed by the mainly trochaic rhythm of the music. The only words whose proper scansion falls victim to the demands of the music are the three that are quoted from the chant near the middle of the piece.

Ex. 17


All in all, mechanical counting of syllables in the shaping of a motet poem did not result in interference with proper prosody in the early motets as often as has been asserted. Interestingly enough, it is tropic references to the text of the chant that sometimes suffer faulty accentuation, as in Ex. 17 or in motet No. 448, where the final words «in veritate» are adapted to the same trochaic rhythm as that of Ex. 17.

It often happens that the conversion of a clausula into a motet requires a number of adjustments. Here, too, Ex semine furnishes a characteristic example; to accommodate the final verse, the ending of the piece was changed, to the detriment of the phrase structure of the original.

[^39]Ex. 18


The copula that usually links a clausula within an organum with the succeeding organal passage is sometimes an essential part of the structure; in a motet, on the other hand, organal passages, no matter how short, are anomalous. Several motets therefore discard the copula; while the rhythmic homogeneity of the tenor is preserved, the structural cogency of the piece may be impaired (e.g. Nos. 10249 and 439).

Another decisive effect of the adaptation of poetry to clausulae concerns the weight and articulation of the individual notes. A comparison of any motet with the ligature notation of the melismatic original clearly shows how the smooth flow of the melismatic ordo is profoundly affected by the declamatory individualization of nearly every note ${ }^{50}$.

Ex. 19


The very picture of the original motet notation suggests a more deliberate and emphatic delivery of each note, which therefore guarantees the eventual destruction of the configurational system of rhythmic modes.

Though Ex semine is an early representative of its species, it is paradigmatic with respect to musical structure as well. The tenor is one of the first to exhibit discretionary repetition; twelve of its 25 pitches are stated twice. The procedure is all the more startling as the repetition involves only pitches 4-15; the omission of the first three notes causes the pitch content of the repeated segment to be rhythmically redistributed. This sophisticated technique was doubtless suggested by the patterning of plainchant melismas with built-in internal repeats, such as «Et exaltavi», e.g. $W_{1}$ No. 101 or the clausula in Perotinus's Alleluia Posui aduitorium. A rhythmic redistribution of the pitch content will automatically occur in the repetition of such a passage if the simple three-note pattern is applied to the cantus firmus.

Ex. 20

[^40]From the type of imposed partial repetition for which the structures of certain Gregorian melodies presumably served as models, to complete repetition of a tenor was but a short and logical step; an example of a clausula based on what Bukofzer has called a double cursus of its tenor ${ }^{51}$ is the Nostrum in the Perotinian Alleluia Pascha nostrum ${ }^{52}$. There, too, the tenor pattern NBg causes a characteristic redistribution; the first pitch of the second statement coincides with the third note of the fifth appearance of the pattern. The imposition of repetition on the tenor for the sake of a more expansively shaped duplum became a favorite compositional procedure; nearly half of the pieces in the clausula fascicles of $W_{1}$ and $F$ employ the device of the double cursus ${ }^{53}$. Some others state the cantus firmus more than twice, at times with successively different rhythmic redistributions of its pitch content. By the end of the century tenor repetition (color) is a standard procedure.

A further device that also already occurs in one of the tripla - and in a few of the clausulae - of $W_{1}$ is the application of two different tenor patterns to two successive statements of one plainchant melisma.

## Ex. 21 The following identifications should be added to Example 21: $W_{1}$, f. $90^{\nu}\left(81^{\nu}\right)$.



Even diminution is already one of the devices in Perotinus's technical arsenal. In view of the paucity of available tenor patterns it is of course impossible so far to apply diminution to clausulae with patterned tenors, but it occurs in an unpatterned discant section of the Alleluia Nativitas, where the twelve pitches of the concluding melisma are presented twice, first in double longs and then, climactically accelerated, in longae simplices; the phrase pattern is $2(4+8 \mathrm{~L})+2(6 \mathrm{~L})^{54}$. A similar, if less carefully shaped passage is the second «Domino» in $F$, fol. 87'.

The patterning of the tenor, the phraseology of the upper voices, and the dis-
${ }^{51}$ Bukofzer, «Discantus», 565.
${ }^{62}$ Anonymus IV gives the following instructions: «Sume troporum unum certum, prout puncta vel soni vel meli in gradali plenius iungantur, ut Latus, quod accipitur in Alleluia immolatus est Christus [i.e. Alleluia Pascha nostrum], et pone in pergameno exempla, deinde subsequenter fac alium ordinem punctorum, nisi ille ordo fuerit sufficiens, secundum quod melius pertinet in modo» (De mensuris et discantu, CS I, 328 b ).
s8 See Smith, «Repetition», 335, who suggests (ib. 336 ss) that the composition of clausulae with double cursus resulted from the successive combination of two different clausulae on one Gregorian melisma within an $F$ or $W_{2}$ organum. Since this is a mechanical procedure observable only in manuscripts younger than $W_{1}$, it would seem that the seven instances in four of the tripla of $W_{1}$ as well as some of the clausulae in $W_{1}$ must claim priority.
${ }^{54}$ In the formulae summarizing phrase structures $L$ stands for ternary long, $B$ for breve, SB for semibreve, and $M$ for minim.
tribution of pitches and consonances at important cadence points bestow on the «Ex semine» an approximate aa'b form. Since the versification of the motet accords with the musical ordines, it cannot be entirely regular. Irregularity of verse structure therefore became a hallmark of the thirteenth-century motet, as the primary measuring tool is the music with its varied phraseology. Thus, the occasional appearance of irregular verses will usually be due to musical structural conditions. Internal rhymes often appear only in correspondence with melodic parallelisms ${ }^{55}$. Mme. Rokseth has shown that a few minor alterations will sometimes reveal a presumably original version of a motet poem, whose regularity had to be sacrificed to the demands of musical structure ${ }^{56}$. In some post-Perotinian cases the intricacy or capriciousness of the musical design will at times cause such irregularities of verse structure as approach rhymed prose.

In Ex semine the phrase layout of the upper voices, both of which sing the text, is completely parallel; for this reason such motets have very properly been labeled conductus motets. While all early three-part motets adopted for their upper voices the texture of the conductus, several others, mostly for two voices and all based on source clausulae, exhibit strophic structure, likewise taken over from the conductus, which was the traditional polyphonic genre for the setting of non-Gregorian Latin poetry. Two of the strophic motets (Latex silice in $F$ and Qui servare puberem in $M \ddot{u} A$ ) appear without their tenors in $W_{1}$ among conducti; since $W_{1}$ contains only four other motets, likewise without tenors and placed among conducti, these six tenorless versions of motets, two of them strophic, might be ascribed to the idiosyncrasies of the compiler. But one of the strophic pieces (Latex silice) also appears, with its tenor added at the end in the usual way, among the conducti in $F^{57}$, while the other is placed as a nonstrophic motet among the conductus motets ${ }^{58}$; the same fascicle contains another piece (Homo quam sit pura), which is preserved as a strophic motet in a source that otherwise contains only conducti ${ }^{59}$. Finally, two strophic contrafacta of a third conductus motet in $F$ (Scandit solium) turn up in MüA ${ }^{60}$; one of these is the only French strophic motet known ${ }^{61}$. Latex silice has a final melismatic cauda, which is a characteristic feature of conducti; another early (non-strophic) motet with several short melismas is Virtus est complacitio ( $F 2,43)^{62}$.

[^41]Particularly revealing of the early tendency to view motets as conducti is the apparent history of the six «motets» in $W_{1}{ }^{63}$. All the circumstantial evidence indicates that all but one of them (Latex silice) were motets turned into conducti by stripping them of their tenors and adding an additional upper voice. At least three of these pieces are contrapuntally acceptable only either as motets without the added voice or as conducti ${ }^{84}$.

Ex. 22


The following identifications should be added to Example 22: F, f. 383; $W_{2}$, f. 126; Contrafactum: $W_{2}$, f. $136^{*}$.

Such contrapuntal clashes result from the combination of two «harmonic» traditions, one, that of the early clausula, favoring the fourth, while the conductus, «qui etiam secundarias recipit consonantias» ${ }^{65}$, admits the third. Thus, the omission of the motet tenors from $W_{1}$ makes good sense and cannot be regarded as a scribal error. Moreover, the mere fact that two of the six pieces (Serena virginum and Latex silice) would be the only conductus motets for four voices in the entire repertoire ${ }^{68}$ is ground for suspicion. But it is exactly these two pieces that furnish additional proof. In all but one of the six sources preserving them they are placed among conducti. A careful examination reveals Latex silice to be a conductus (probably for three voices, because of the type of cauda with which it ends and because of a Stimmtausch passage in the two upper voices), under whose tenor someone stimulated by the word «Latex» and by the ending of the first and last of the poem's three stanzas («immolatus») made a not quite successful attempt to fit the Gregorian melisma «Latus» ${ }^{67}$. Serena virginum is a contrafactum of the motet Manere vivere, whose text, in the typical fashion of early motets, quotes the word of its tenor at the beginning and end. Manere vivere is preserved only in $W_{2}$ as a motet for two voices, but its contrafactum exists as a conductus motet in London, British Museum, Ms. Egerton 2615 (LoA). The endings of both of these versions agree with the source clausula, while the two versions with the

[^42]added voice have a slightly different ending, requiring the arbitrary addition of one note to the tenor in $F$. There is thus every reason to assume that Serena virginum originated as a conductus motet (or as a motet for two voices with subsequently added triplum) and was later converted into a three-voiced conductus without Gregorian tenor. Even in $F$ it is, like Latex silice, placed among conducti, where both are misleadingly followed by the cantus firmus. Both the contrapuntal situation and the manner of their preservation in the various sources suggest that the other four motets, erroneously preserved as conductus motets in $F$ (two of them also in $W_{2}$ ), originated as motets for two voices that were subsequently turned into two-voiced conducti.

Serena virginum is an instructive piece for two other reasons. Its notation in LoA is typical of the earliest motet tradition, which was to write the voices in score, like those of a conductus, and to place the motet text under the tenor, which was notated either (1) in single virgae (ternary longae), as in No. 81 of the $W$ orcester Fragments ( $W F$ ), or (2) dissolved into as many repeated notes as the tenor would require to sing the added text, as in the version of Mellis stilla in Oxford, Bodleian Library, Ms. Rawlinson G. 18, fol. 106', in the two organa Vidit rex and Amborum sacrum spiramen ${ }^{68}$, and in the version of Ave gloriosa mater preserved in London, British Museum, Ms. Harley 978, fol. 9, or (3) in ligatures, as in the Châlons manuscript ${ }^{69}$ and in the two motets preserved in Lo $A^{70}$. The Ave gloriosa mater is especially interesting, since it begins the notation of its tenor as in (1) above, then switches to the second method, and finally appends to the motet another version of the tenor in ligatures. Evidently the double notation of the tenor indicates that the piece was performable either as a conductus ${ }^{21}$ or as a motet.

All these factors surely indicate that in one way or another the emerging motet was often treated more or less like a conductus. Yet, Serena virginum also illustrates how, in defining itself, the motet subtly moved away from the world of the conductus. Serena virginum (or Manere vivere) is based on four successive clausulae, of which the last repeats its tenor; all five statements of the cantus firmus have the same rhythmic pattern. But even though in $F$ the composition appears in a conductus fascicle, separated from Latex silice by only five conducti, it is neither musically nor poetically strophic; even the phrase layout of the five «stanzas» varies ${ }^{72}$. Each of the strophic motets is based on one source clausula; apart
${ }^{88}$ Cf. Ludwig, Repertorium, 329.
${ }^{00}$ See Jacques Chailley, «Fragments d'un nouveau manuscrit d'Ars antiqua à Chalons-sur-Marne », In Menoriam Jacques Handschin, Strassburg 1962, 140-149.
${ }^{70}$ Ludwig may well have been mistaken when he called this practice «irrig " (Repertorium, 242).
${ }^{n 1}$ To complicate matters further, the piece is also equipped with an alternate French text in the Harleian manuscript.
${ }^{72}$ The occasional correspondences at the beginnings and ends of the source clausulae are hardly strict enough to be called «strophic» (Georg Reichert, «Wechselbeziehungen zwi-
from the four that were discussed no others are known, and there is every reason to assume that the hybrid species had a very brief life.

The conductus motet also maintained itself only for a very short time. The various ways in which the motet distanced itself from the conductus provide a fine example of the process of sloughing off outworn and uncongenial traits that accompanies the rise of a new genre. It is the further development of contrapuntal and structural techniques in the clausula that accounts for this course of events.

A good number of clausulae in $W_{1}$ strike out in a significant and adventurous direction; some of the duplum phrases overlap the tenor ordines in such a way as to begin and end respectively over the last and first notes of successive tenor ordines. This is sometimes achieved by the insertion of a single note; coincidence of phrases will often be re-established by a phrase consisting of a total of six beats. One such clausula already crops up in the $W_{1}$ version of the Magnus Liber:

Ex. 23 The following identifications should be added to Example 23: $W_{1}$, f. $48^{\gamma}\left(42^{\nu}\right) ;$ f. $58^{\nu}(50) ;$ F, f. 136.


- $\mathbf{a}$


Surely one of the most accomplished specimens of an early Notre-Dame clausula is $W_{\mathbf{1}}$ No. 75 , even though it has no double cursus and only one tenor pattern. The very modesty of its facture highlights the brilliance and polish of the compositional concept.
Ex. 24 The following identifications should be added to Example 24: $W_{1}$, f. 59 (51).

schen musikalischer und textlicher Struktur in der Motette des 13. Jahrhunderts», In Memoriam Jacques Handschin, StraBburg 1962, 161); many clausula settings of one particular tenor have similar or even identical beginnings and/or endings.


The weighty, annunciatory beginning (first two ordines), the subsequent pairing of phrases - first ouvert and clos, then sequential, and finally variational -, the judicious spicing of the contrapuntal texture with a few dissonances for the sake of the logical melodic design of the duplum, the rhythmic variation imposed on the internal repetition of the Gregorian melisma by the tenor pattern, the quasiimitative relation between the penultimate ordo of the duplum and the last two ordines of the tenor, the final cadential broadening of the duplum, and the constant gentle tension between the calm groundswell of the tenor's rhythmic ostinato and the lively duplum phrases imaginatively offset against it - all these facets contribute to the impression of mastery. Moreover, the phrase structure of the duplum is carefully balanced:
Duplum: $\quad 4 \mathrm{~L}+6 \mathrm{~L}+2(8 \mathrm{~L})+2(4+4 \mathrm{~L})+2(8 \mathrm{~L})+6 \mathrm{~L}$.
Tenor: $\quad 8(4+4 \mathrm{~L})$
The immediate appeal and dance-like quality of such dupla have often been commented upon; yet, it is apparent that if these pieces have absorbed outside elements, they have assimilated them in a «Haydnesque» spirit of classical sophistication and freshness. In view of its Perotinian style and technique it is entirely plausible to assume that $W_{1}$ No. 75 is one of the very many clausulae written by Perotinus according to the testimony of Anonymus IV.

The potential complexity of phrase structure in clausulae for more than two voices is staggering. In all but one of the four clausulae (Ex semine, Lu, Nostrum, Latus) in the Perotinian tripla Alleluia Nativitas and Alleluia Pascha Nostrum the phrase endings of the upper voices still coincide with the ends of tenor ordines; only the beginning of Latus is slightly more adventurous.
Ex. 25


Both Mors, the only independent clausula for four voices, and the two clausulae in Perotinus's Alleluia Posui adiutorium exploit the technique of staggered phrasing; but all their phrases are still composed of an even number of beats. An excerpt from the clausula Domino from a setting of Benedicamus domino demonstrates a further step ahead; since the upper voices have hocket passages, some of their phrases necessarily contain an odd number of beats.

Ex. 26 The following identifications should be added to Example 26: $W_{1}$, f. 12 (8); $F$, f. $42^{v} ; W_{1}$, f. 29.



A great deal of virtuosity went into the composition of the clausula In odo, very probably by Perotinus, of which the second half will have to suffice as example.
Ex. 27 The following identifications should be added to Example 27: $W_{1}$, f. $91^{\nu}\left(82^{\prime}\right) ; F$, f. 45.






The ending, which cuts the last note off the cantus firmus and leaves the last tenor ordo incomplete, is certainly puzzling, but turns out to be the result of a structural caprice that reveals a superbly rational creative mind. The incomplete ordo is balanced by a double long rest at the beginning of the piece.


Thereafter, the 66 notes of the cantus firmus are laid out in 22 ordines totaling 88 beats, while the second statement of the tenor totals 86 beats (and 65 notes). The phrase design of the upper voices is correspondingly off balance; especially the duplum is crafted with great cunning:
$[4 \mathrm{~L}+2(5 \mathrm{~L})+4 \mathrm{~L}]+2(8 \mathrm{~L})+4(4 \mathrm{~L})+16 \mathrm{~L}+2(8 \mathrm{~L})+2(4 \mathrm{~L})$
$+6 \mathrm{~L}+[2(8+4 \mathrm{~L})+8 \mathrm{~L}+(5+7 \mathrm{~L})]+[3(4 \mathrm{~L})+8 \mathrm{~L}+(5+7 \mathrm{~L})]+4 \mathrm{~L}$
It is evident that the incompleteness of the end of the duplum (and triplum) is balanced by its anticipatory protraction at the beginning ${ }^{73}$.

A veritable chef-d'œuvre is a short four-part setting of Sederunt. The cantus firmus, consisting of seven notes, is stated three times in grouped, but unpatterned longae. However, since evidently the composer envisioned a piece demonstrating the number 12 in various ways, the last note of the tenor is extended by three beats, making a total of 24 rather than 21 beats, which are divided into two halves and further subdivided in various ways:
${ }^{73}$ Most manuscripts show a cadential lengthening of the penultimate beat (though $F$, which is the only source to label the tenor correctly, does not). In any case, this broadening, which was mensurally misinterpreted in some later manuscripts, is usual at the ends of such compositions (cf. Franco, Ars cantus mensurabilis, CS I, 133a; Cserba, Hieronymus de Moravia, 255); it is a purely external feature that in no way interferes with the structure.

Triplum and Quadruplum: $2 \mathrm{~L}+4 \mathrm{~L}+4 \mathrm{~L}+2 \mathrm{~L}+4(3 \mathrm{~L})$
Tenor and Duplum: $6 \mathrm{~L}+4 \mathrm{~L}+2 \mathrm{~L}+5 \mathrm{~L}+4 \mathrm{~L}+3 \mathrm{~L}$
Ex. 29 The following identifications should be added to Example 29: F, f. $7^{*}$.


It is hardly possible to demonstrate the number 12 in a more tightly packed composition. Both In odo and Sederunt reveal a structural imagination that is astonishingly advanced, particularly when it is recalled how recently musica mensurata had emerged.

Regardless of the degree of its complexity, the device of staggered phrases wreaks havoc with the conversion of three-voiced clausulae into conductus motets. Ex semine and Nostrum survived intact (except for the change at the end of Ex semine), because the phrases of the two upper voices are completely parallel in both. In Latus a small but significant adjustment was necessary at the beginning (cf. Ex. 25):

Ex. 30 The following identifications should be added to Example 30: F, f. 385.


To turn the three-voiced clausula Et exaltavi ( $F$, fol. 46) into a motet ( $F$, fol. 395; $W_{2}$, fol. 124) necessitated considerably more extensive revisions ${ }^{74}$. It is highly significant that of a total of 30 patterned discant sections and clausulae in $W_{1}$ and $F$ for more than two voices only these four were made over into conductus motets.

[^43]




iquofur fapièm cruoz proum noitum.


Plate 4: fol. $384^{v}$

The reason is plain: contrapuntal and structural expertise broke through the inherent limits of the species. Only a small number (less than two dozen) of additional conductus motets were written by means of the ornamental addition of a new triplum to a textually troped clausula for two voices ${ }^{75}$.

In the case of many a conductus motet appearing in more than one source the various versions of the tenor and duplum agree, while those of the triplum usually vary. This is a feature that shows up the fundamental cleavage opening up between conductus and motet. In the former, the text governs the tenor and all superimposed voices, chaining the parts together. The texture is in effect a contrapuntally duplicated or triplicated entity. This is why the conductus favors the vertical interval of the third; it blends the voices. Even in the often extensive melismatic caudae the voices are not differentiated, but related in character; oftentimes they are affiliated by Stimmtausch. (In style and technique the upper voices of organal sections of Perotinian tripla and quadrupla are often related to conductus caudae.)

The motet, on the other hand, lacks the unifying bond of one text. It is not poetry set to music; it does not belong to that category labeled by Jacques Handschin «Kompositionen mit rhythmischem Text». Both textually and musically the two lowest voices are two distinct entities, forming a duplex cantus ${ }^{76}$. From the beginning of its existence the motet aims for individualization of its voices; Stimmtausch is atypical, and only the earliest motets still show a fondness for the third. To fulfill the challenge of making motets (Alpha bovi and Mens fidem) out of such clausulae as Domino and In odo ${ }^{77}$ was at first simply inconceivable, and the triplum was therefore dropped. The early motet was a dual organism; an added triplum was merely a variable ornament. After the conductus motet, initial production of the great majority of motets preserved in the earliest sources ( $F, M \ddot{u} A, W_{2}$ ) are for tenor and duplum only, as are almost all the clausulae; $W_{2}$ is the last manuscript to contain conductus motets, barely half as many as are preserved in $F$.

The triplum receives definition as soon as - a rigorously logical concept of marvellous daring - it is animated by a text of its own with independent rhyme scheme and versification ${ }^{78}$. Only then is it established as a cantus ${ }^{79}$, which may

[^44]
## 523

in turn spawn contrafacta, each an alter ego. Significantly, there are almost no «double motets» ${ }^{80}$ that were converted from conductus motets ${ }^{81}$; quite a few of the latter were simply stripped of their tripla, as in $M \ddot{u} A$ and $W_{2}$. The fragmentary remains of MüA as yet contain no motet for three voices with two texts, a bit of fortuitous, though not altogether reliable circumstantial evidence, which is strengthened by the fact that no theorist writing in the first half of the century explicitly recognizes the species ${ }^{82}$. $F$ contains three double motets, all with Latin texts; $W_{2}$ adds 21 more, of which only one (based on two superimposed clausulae) has Latin texts ${ }^{83}, 19$ have French texts, and one is macaronic ( $W_{2} 3,12$ ). Significantly, the motet that opens the group of French double motets is a contrafactum of Mens fidem, the Latin motet on In odo. It is one of only three cases in which a clausula for more than two voices reappears as a double motet with the same voice parts. The other two, already in $F$, are Flos filius e ( $F$, fol. 11) and Mors, which lost its quadruplum in the process, since evidently the concept of a triple motet was too challenging to be realized immediately. It did become a triple motet, with the music of the clausula intact, presumably some time between the compilation of $W_{2}$ and Paris, Bibliothèque Nationale, nouv. acq. françaises ms. 13521 (Cl), which is one of the two manuscripts to transmit the piece with three different Latin texts; as such it remained the sole representative of its species. ( $W_{2}$ contains only one - French triple motet, probably an original composition, since no source clausula is known.) Thus, of the 30 patterned discant sections and clausulae for more than two voices, seven remained musically intact as motets - four as conductus motets ( $E x$ semine, Nostrum, Latus, Et exaltavi), two as double motets (In odo, Flos filius e), and one as triple motet (Mors). Ludwig has argued repeatedly that the motet originals of Domino (Alpha bovi) and In odo (Mens fidem) must have been Latin double motets ${ }^{84}$, even though none exists for the former, while the latter emphatically opens the group of motets for two voices in $F$ and exists in a double-motet version only as a French contrafactum. The evolutionary sequence of events clearly indicates the likelihood that upon conversion into motets these pieces at first lost

[^45]their tripla, which were only later restored to them; only one clausula for three voices (Flos filius e) was initially made into a double motet (Stirps Iesse/Virga cultus), while seven yielded no motets at all. Similarly, Ludwig's claim that the original motet version of Mors must have been a triple motet lacks sufficient substantiation ${ }^{85}$. The latter case especially demonstrates how the motet at first had to abandon composition for three and four parts, as it came to grips with the problems posed by the genre.

It is all the more astonishing that one of the three double motets in $F$ (Ypocrite) Velut stelle/Et gaudebit), in combining three voices whose differentiation extends not only to the text, but also to the music, already fully realizes the inherent potential of the genre, which Heinrich Besseler has described as «Harmonie des Verschiedenartigen» ${ }^{86}$. The composition originated as a clausula for two voices on a famous Perotinian tenor ${ }^{87}$, which was converted into the tropic conductus motet $O$ quam sancta ${ }^{88}$. Some time later a new triplum was composed with the text «Ypocrite»; the combination is preserved in two manuscripts. Since «Ypocrite» castigates the «pseudopontifices, ecclesie duri carnifices», Velut stelle, a contrafactum of $O$ quam sancta, praising the deeds of the dedicated clerics, was juxtaposed with it «als geistige Ergänzung» ${ }^{89}$. The tenor proceeds in longs and double longs, the duplum in longs and breves, and the triplum almost exclusively in breves. Moreover, the voices, like those of most other medieval double motets, are differentiated in their phrase structure: the duplum disposes almost all its phrases in lengths of four or six beats, while the phrase layout of the lively triplum is more varied; its first half is ordered as follows: $2(4 L)+5 L+2(4 L)+1 L$ $+2(2 \mathrm{~L})+6 \mathrm{~L}+4 \mathrm{~L}+3 \mathrm{~L}+6 \mathrm{~L}+5(5 \mathrm{~L})$. It is possible to view this arrangement as consisting of three sections (22, 23 , and 25 beats), with the phrases proceeding mainly in 4's, 6's, and 5's, respectively. The motet is obviously by a «first-rate musician> ${ }^{90}$; nothing argues specifically against the assumption of Perotinian authorship, though admittedly there is no direct evidence supporting the ascription of the triplum to Perotinus ${ }^{91}$. But the inclusion of this composition in the conservative motet repertoire of both $F$ and the old corpus of $M a^{\theta 2}$ is certainly suggestive.
${ }^{85}$ Ib., 113, 117, 389.
${ }^{86}$ H. Besseler, *Ciconia», MGG II (1952), 1429.
${ }^{87}$ Husmann, Notre-Dame-Organa, xxii.
${ }^{88}$ Fragmentarily preserved in the Chalons manuscript. Cf. Chailley, «Fragments», 145. In the example printed there the text must be moved under the tenor.
${ }^{89}$ Husmann, «Bamberger Handschrift", 1204 - Husmann's assumption of the priority of $O$ quam sancta was proved correct by the discovery of the Chalons manuscript. For a transcription of the double motet see Husmann, Die mittelalterliche Mehrstimmigkeit, Köln 1955, No. 6b (Das Musikwerk).
${ }^{90}$ Ludwig, Repertorium, 122 ; it became the most extensively known of all Notre-Dame motets (ib., 121, 399, 404).
${ }^{11}$ Cf. Sanders, «Perotin's CEurre and Dates», 247.
${ }^{88}$ Its last 13 motets are a slightly later addition.

That number is the divinely logical principle activating and sustaining the harmonious cosmos is a medieval view of dogmatic force. Since its basic intervals represent a hierarchy of rational and fundamental number relationships, musica instrumentalis was regarded as the sounding symbol of musica mundana, the numerically constituted universe. Music concretely demonstrated numerical order. It was one of the artes quadriviales, because «est disciplina vel scientia quae de numeris loquitur ... qui inveniuntur in sonis» (Cassiodorus) ${ }^{93}$ and because it is «disciplina quae invenitur in motuum proportionibus» (Boethius) ${ }^{94}$. Moreover, the microcosm of man's harmonious constitution (musica humana) attunes him to the ordered system of music's principal intervals; with its proportions music reconciles all imperfections into harmonious agreement. The medieval view of the symbolic significance of music as numerus sonorus was so comprehensive that, in the formulation of Jacobus Leodiensis, «musica enim generaliter sumpta obiective quasi ad omnia se extendit» ${ }^{95}$.

For the medieval «musicus», therefore, the proper purpose of music was «numerose canere». This concept is rooted in St. Augustine's view that the composer's calling is to fashion works as audible embodiments (numeri corporales) of the inaudible essence (numeri incorporales) ${ }^{96}$. «Omnia in mensura et numero et pondere disposuisti» - that famous sentence from the Book of Wisdom, endlessly quoted as biblical and divine justification for all aspects of medieval man's concern with number, remained an influential maxim in music till the end of the $17^{\text {th }}$ century ${ }^{97}$.

It has been pointed out that «mathematical formulae underlie nearly all medieval architecture and indeed most medieval art» ${ }^{98}$, and that the ratios of the primary intervals - symbols of eternal truth - can at times be demonstrated to have determined the basic dimensions and details of Gothic cathedrals ${ }^{99}$, as well as

[^46]form and content of much medieval poetry ${ }^{100}$. Just as much as architecture is thought of in the Middle Ages as a visual manifestation of musical proportions ${ }^{101}$, music, i.e. measured discant, is by the end of the $13^{\text {th }}$ century described in architectural terms: «Tenor autem est illa pars supra quam omnes alie fundantur quemadmodum partes domus vel edificii super suum fundamentum. Et eas regulat et eis dat quantitatem» (Johannes de Grocheo) ${ }^{102}$. Jacobus Leodiensis, after adopting the Franconian definition of discantus as «de cantu sumptus» ${ }^{103}$, continues,
id est de tenore supra quem discantus fundatur, sicut edificium aliquid supra suum fundamentum; uti ille cantus tenor dicitur quia discantum tenet et fundat. Quis enim sine tenore discantat, quis sine fundamento edificat? Et sicut edificium debet proportionari fundamento, ut fiat edificium non ad libitum operatoris sed secundum exigentiam fundamenti, sic nec discantans ad libitum suum notas proferre debet, sed secundum exigentiam et proportionem notarum ipsius tenoris ut concordent cum illis. Discantus igitur a tenore dependet, ab eo regulari debet, cum ipso concordare habet, non discordare. ${ }^{104}$

It is the epochal achievement of Perotinus and the Perotinian generation to have added to the traditional numerical order of music, as embodied in the consonant intervals, the numerically founded arrangement of durational values, as embodied in rhythm and the co-ordination of phrases. Not only in the consonant flow of its voices, controlled by «bene modulandi scientia» (St. Augustinus) and «ars discantus», but also in the measured disposition of its elements and structural members is the motet an aural manifestation of numerical «musical» proportions. This is primarily a matter of metaphysics and only consequently of aesthetics. «To the medieval thinker beauty was not a value independent of others, but rather the radiance of truth, the splendor of ontological perfection, and that quality of things which reflects their origin in God.» ${ }^{105}$ Optimally, the teleological meaning of the motet is to be an image of the divine order, and its composition is a joyous science.

As the century progresses, this momentous change in polyphony is reflected in the definition and classification of music. Thus, Cassiodorus's explanation that «harmonica scientia est musica quae discernit in sonis acutum et gravem» ${ }^{108}$ is taken over in Lambertus's treatise (probably written in the early 1270's), but expanded to include rhythm: «Harmonica [musica] vero est illa que discernit inter

[^47]sonum gravem et acutum, vel harmonica est illa que consistit in numeris dupliciter et mensuris.> ${ }^{107}$

With the emergence of the clausula, cantus-firmus polyphony, having become musica precise mensurata, gave up its character and function of ornamentation of a Gregorian chant. It was proposed recently that with the device of tenor repetition (double or multiple cursus) in clausulae, for the first time in history «purely artistic considerations begin to take precedence over liturgical requirements» ${ }^{108}$. But this device is already predicated on the revolutionary notion of carving a segment out of a chant in order to compose an independent, self-contained piece of polyphony with precisely measured «divisions» and with all its elements unmistakeably and unambiguously defined. The inert cantus firmus, both «ultra mensuram» and inherently malleable due to the absence of words, became animated by structural thinking that removed it from its proper environment. While it is correct that the initial task of measured discant was the «Gestaltung des Rhythmus» ${ }^{109}$, it is evident that the superstructure of the clausula «a tenore dependet», from which it derives «quantitatem». Since versification, being based on number and proportion, had since Cassiodorus been regarded as a division of music ${ }^{110}$, the conversion of the clausula into the motet was inevitable.

A well-made motet is a concise tonal ${ }^{111}$, temporal, and poetic form, whose superstructure, erected «super determinatas notas firmi cantus» ${ }^{112}$, is designed proportionately to unfold, demonstrate, and articulate the fundamental numerical theme given by the tenor. Significantly, Grocheo uses the term «ordinare» for the shaping of a motet tenor, and the component phrases of motets were in the $13^{\text {th }}$ century known as «ordines» ${ }^{113}$.

The motet is a polyphony of tones, of texts, and of interrelated numbers governing rhythm and phrase structure. And for medieval man numbers, which as a result of the long and pervasive tradition of number symbolism carried a connotational freight endowed with divine significance ${ }^{114}$, were not just integers, but also distinct perceptual qualities ${ }^{115}$. The shift from, say, 4 to 6 is not so much

[^48]the addition of 2 as it is an «Eintritt in einen ganz andersartigen Bereich» ${ }^{116}$. And numerical qualities are capable of sensuous perception; «the senses delight in things duly proportioned as in something akin to them, for the sense, too, is a kind of ratio, as is every cognitive power» ${ }^{117}$.

Such structures are basically not accompanied songs or duets that «express» the text(s); rather, the motet composer is concerned with «establishing a perfect formal congruence of text and music, a coincidence of rhyme and cadence» ${ }^{118}$. The role of poetry in a motet is best defined by analogy with the stained-glass windows in a Gothic church. The images in the poetry of the upper voice(s) relate to the music in the same way as do the historiated windows to the structure of which they are components. The music does not accompany, elucidate, or intensify; rather, the poetry illuminates and co-ordinately reflects the structure of the music.

Erwin Panofsky has emphasized «manifestatio» (total elucidation or clarification) as «the first controlling principle of Early and High Scholasticism» and has defined the three requirements of the classic Summa as «(1) totality (sufficient enumeration), (2) arrangement according to a system of homologous parts and parts of parts (sufficient articulation), and (3) distinctness and deductive cogency (sufficient interrelation) ... According to classic High Gothic standards the individual elements, while forming an indiscerptible whole, yet must proclaim their identity by remaining clearly separated from each other ...; and there must be an unequivocal correlation between them». ${ }^{119}$ Like the cathedral, the motet may be termed a Summa; medieval man molded music, as numerus sonorus, into a com-* posite whole, an artifact symbolizing the transcendental order of musica mundana, and thus achieved a quintessential embodiment of the Gothic spirit ${ }^{120}$.

The extraordinary greatness of Perotinus rests essentially on qualities he shares with the other outstanding «classical» masters among European composers. Like them he fulfilled the crucial functions of focussing diverse «national» influences ${ }^{121}$, creating well-organized, large-scale masterpieces that, stylistically and formally, are the consummate high points of the period, and bequeathing a significant artistic heritage with diversified potentialities. Small wonder that throughout the $13^{\text {th }}$ century and still in the early $14^{\text {th }}$, manuscripts inscribed in France, England, Spain, Italy, and Germany continued to transmit music by Perotinus and his inmediate successors ${ }^{122}$. His activity in Paris coincided with the con-

[^49]struction of Notre-Dame. Both the cathedral and the œuvre of Perotinus are climactic monuments of the classic Gothic.

The tradition that no note of the tenor should contain less than «mensuram trium temporum» ${ }^{123}$ had originated in the Leoninian organum. The composers of clausulae, which were the experimental music of the time ${ }^{124}$, were the first to introduce the breve into the patterned cantus firmus. Thus, the tenor patterns of $W_{1}$ No. 20 (NBh) and of Nos. 1 band 64 (NBi), seeming «diminutions» of NBjand of its converse form and like them soon written with an internal divisio, can be understood as variants of the often encountered group of four tenor notes (NBk), just as much as the pattern of $W_{1}$ No. $102(\mathrm{NBl})$ seems to be an animated version of NBm . The pattern NBn , like $\mathrm{NB}_{\mathrm{o}}$, of which it is a kind of diminution, written in ternary ligatures, already crops up in the $W_{1}$ version of the Magnus Liber, though only three times.

Ex. 31 The following identifications should be added to Example 31: $W_{1}$, f. 44 (38).


About one fourth of the $W_{1}$ clausulae introduce breves into their tenors. Clausulae with lively and increasingly varied tenor patterns also occur in $F$, a development attributed by Ludwig to Perotinus ${ }^{125}$; in St $V$ only five of 40 preserved clausulae exclude breves, and two of these pieces had already appeared in $F$ (one of them only as a motet) ${ }^{126}$. An even greater conservatism marks $W_{1}$ with respect to modal variety. With the exception of $W_{1}$ Nos. $10,11,13$, and 22, the iambic rhythms of the second rhythmic mode are not represented in the clausula fascicles of $W_{1}$; in $F$ they are relatively far more frequent. As soon as the possibility was recognized of placing the breve before, rather than after the first longa of a phrase, categorization of the available rhythms became a necessity. This, too, is a step that may well have been undertaken by Perotinus. Of course, just as some Gregorian melodies are difficult to accommodate within the taxonomic system of the melodic modes, the six rhythmic modes are a didactic codifi-

[^50]cation of often astonishingly lively rhythms, whose graphic fixation sometimes put the system of melismatic notation to a severe test.

## Ex. 32 The following identifications should be added to Example 32: $F$, f. 13.



Just as musica mensurata had for the first time furnished a reliable musical yardstick with which to measure Latin poetry ${ }^{127}$, the musical setting of vernacular poems, which had been monophonic and not precisely measured ${ }^{128}$, now also got drawn into its orbit. The intrusion of the French language into cantus-firmus polyphony must have occurred soon after the development of the modal system. It was doubtless the application of French poetic texts ${ }^{129}$ to the upper voices

[^51]of motets that caused the duplum to be called motetus and in turn gave the genre its name, while in their earliest stages, as represented by $F$, these compositions must have been referred to simply as discantus or clausulae ${ }^{130}$. The appearance of the French language and of the rhythms of the second mode appear to have been corollary phenomena ${ }^{131}$. By far the highest percentage of second-mode motets in the old corpus of Montpellier, Faculté de Médecine, Ms. H 196 (Mo) is in the French fascicles, particularly in the sixth fascicle, consisting of French motets for two voices. French motets rapidly became more prominent than those with Latin poetry; the last manuscript to preserve Latin motets for two voices is $W_{2}$, and a significant number of them are contrafacta of French originals ${ }^{132}$. Of the major manuscripts preserving 13th century motets, $W_{2}$, and $C l$, and $M o$ all favor French compositions; even in Bamberg, Staatliche Bibliothek, Cod. lit. 115 (olim Ed. IV. 6) (Ba), which may be of Rhenish provenance, Latin and French are equally represented.

Very few French motets that are contrafacta of Latin pieces paraphrase the original poem. One example is $W_{2} 1,14^{133}$ :

Glorieuse deu amie ...
Vie et voie et veritez.

O Maria maris stella ...
In veritate.
demonstration of the rhythmic modes. It cannot be maintained, therefore, that «words were a principal means of establishing the metre of a piece of [monophonic secular] music» (John E. Stevens, Music and Poetry in the Early Tudor Court, London 1961, 34).
${ }^{199}$ For a detailed treatment of the subjects of French and Latin motet poetry, see H. Besseler, «Studien zur Musik des Mittelalters II», AfMw VIII (1926), 162-165, and Rokseth, Polyphonies IV, 227 ss, 240 ss .
${ }^{230}$ Cf. Sanders, «Duple Rhythm», 280 n. 150; cf. etiam Günter Birkner, «Motetus und Motette», AfMw XVIII (1961), 191 ss; Rolf Dammann, «Geschichte der Begriffsbestimmung der Motette», AfMw XVI (1959), 345-354, and Klaus Hofmann, «Zur Entstehungsund Frühgeschichte des Terminus Motette», AMI XLII (1970), who cites evidence that some early sources designated Latin motets as *tropi» or «prosae». Hans Tischler's arguments («The Dates of Perotin», JAMS XVI [1963], 240/241) affect neither this suggestion for the appearance of the term «motet» to designate texted cantus-firmus polyphony, nor the proposed dates of Perotinus. Since Tischler agrees that Perotinus witnessed the creation of Latin conductus motets and of motets for two voices, his etymological arguments are not only unconvincing but irrelevant ("muttum » belongs to etymological, not to terminological history). The question of Perotinus's dates in part depends on the dating of the appearance of the French motet and therefore of the term. Since justification of a date earlier than 1215 for the emergence of the French motet and of the term encounters considerable obstacles, Perotinus's death may tentatively be assumed to have occurred no later - nor much earlier - than ca. 1225. Cf. Sanders, «Perotin's CEurre and Dates», 248.
${ }^{131}$ *Den zweiten Modus könnte man den [französischen] nennen» (Besseler, «Ars Antiqua », 683). In the Las Huelgas manuscript it is identified as «manera francessa» (fol. 147'), an expression also applied to modus imperfectus (fol. 148). The areas to the North (England), South (Spain), and East (Germany, Switzerland) of France all apparently found the rhythms of the second mode uncongenial and adopted them only hesitantly. Cf. Sanders, *Duple Rhythm», 286 n. 174.
${ }^{152}$ Ludwig, Repertorium, 195/196. Each of the alphabets making up the fascicle in question contains a successively higher proportion of contrafacta.
${ }^{188}$ Ib., 179.

Significantly, it is one of the very small number of preserved French canductus motets, all of which are early contrafacta. Equally rare is the tropic reference to the cantus firmus that $W_{2} 1,14$ and 4,83 demonstrate. The dwindling topical connection with the chant is especially well demonstrated by the practice of adding French tripla (contrafacta or originals) to Latin dupla ${ }^{134}$ and thereby adding another element to the individualization of the upper voices.

But even a good many of the poems in the Latin motets of $F$ and $W_{2}$ either retain only a topical connection with the text of the cantus firmus, while giving up the assonances characteristic of the trope, or else depart altogether from the tenor's words and their connotations ${ }^{135}$. Other motets, Latin as well as French, continue to cultivate assonance with the tenor label, but rather than reflecting liturgical necessity the device often betokens poetic ingenuity and delight in punning, e.g. Maniere esgarder/Manere; Et exalta vi magna/Et exaltavi ${ }^{136}$. Probably the most striking specimen of this procedure is the motet De resurrectione preserved on fol. 87' of the early $14^{\text {th }}$-century English manuscript Oxford, New College, Ms. 362 (ONC), whose two upper voices, based on the chanson $A$ definement deste lerray in the tenor, begin their songs with the comment that Adam's $\sin$ has been expiated by the passion and resurrection of the Savior: «Ade finit perpete/ Ade finit misere». While the earliest motets, such as Ex semine, were still closely related to the genre of troped organa and may have been used within their appropriate organa ${ }^{137}$, there can hardly be any question that upon gaining musical independence both the clausula and the motet soon gave up their connection with church and liturgy, and became pieces of clerical (and aristocratic) chamber music. Liturgical ordering of motets, still observed in the first motet fascicle of $F$ and in $M \ddot{u} A$, is given up in the second motet fascicle of $F$ and is replaced by alphabetical arrangement in $W_{2}$.
The enormous vogue of French motets for two voices that seems to have been in full swing by the third decade of the century bespeaks the far-reaching secularization of the genre. All but one of the motets preserved in $M \ddot{u} A$ are for two voices ${ }^{138}$, and nearly all have French text; only $12 \%$ of the motets in $W_{2}$ are double motets. In fact, the French motet for two voices must be recognized as a separate species; less than a quarter of those preserved in $W_{2}$ recur as double motets, and only one of those motets in the sixth fascicle of $M o$ that have no concordance in $W_{2}$ recurs in a later manuscript as a double motet ${ }^{139}$.

184 Numerous examples are collected in $C l$, most of which are duplicated by the eleven macaronic motets of the third fascicle of Mo.

135 Husmann, «Bamberger Handschrift», 1202.
188 Cf. Rokseth, Polyphonies IV, 164.
${ }_{137}$ The isolated case of the insertion of Perotinus's Ex semine into an English organum Alleluia Nativitas cannot be taken as general proof of the liturgical function of even the earliest motets. Cf. Sanders, «Tonal Aspects», 33 n. 69.
${ }^{138}$ The exception is a conductus motet.
${ }^{139}$ Ludwig, Repertorium, 363.

The tenors of many French motets for two voices did not favor the traditional slow, steady patterns, but tended to approximate the rhythmic quality of the motetus. No other types of motet neglected the old-fashioned tenors without breves to a comparable extent ${ }^{140}$; in fact, it seems as though for a good part of the century the motet frequently was on the point of transforming itself into another genre, viz. the polyphonic cantilena. And if a motet could be viewed as a song accompanied by a commensurately lively patterned tenor ${ }^{141}$, it could be and was appropriated as an unaccompanied song. Handschin has pointed out that the first of the motets for two voices in $W_{2}$ is illuminated by a miniature showing only one person, who is singing from a musical manuscript; he concluded that the tenor may have been regarded as dispensable ${ }^{142}$. And indeed there are numerous cases of motets appearing in certain sources without their tenors or with tenors whose notation is so corrupt and useless as to indicate complete lack of comprehension and sympathy on the part of the scribe ${ }^{143}$. It is especially noteworthy that the generally correct notation of the tenors of Latin motets in $W_{2}$ contrasts with the far more carelessly notated tenors of the French motets in the same source ${ }^{144}$. Just as the earliest motets were at times misunderstood as conducti, motets, frequently studded with refrains, were now regarded as chansons. Composers were often highly skilful in coming to grips with one of the major challenges of motet composition, which was, in Walter Odington's words, that «maxime visendus est medius cantus ut per se sit decorus» ${ }^{145}$. And so it was obviously not at all uncommon that «aliquis per se cantat motetum aliquem, triplum, vel quadruplum sine tenore et tunc absolute» ${ }^{146}$. There are even cases of moteti that were cut from their polyphonic environment and turned into strophic songs ${ }^{147}$.

It is hardly surprising that these developments would often cause a corrosion of the integrity of the cantus firmus. Complete or partial repetitions are devices

[^52]that were originated by Perotinus. But in the French repertory changes in structure and pitch content of the Gregorian tenor are by no means uncommon ${ }^{148}$. Particularly striking are motets that accommodate refrains ${ }^{149}$ and motets with upper voices shaped like rondeaux; necessarily the tenors are often unpatterned or irregularly shaped (just as in the conductus motet Latex silice) and in the cases of rondeau motets they are bent to fit the form of the motetus ${ }^{150}$. But there are also other considerations that imposed an extraneous form on the tenor, e.g. deference to phrase parallelisms in the motetus ${ }^{151}$, or expansion of the internal repeat of the Gregorian cantus firmus ${ }^{152}$, or simply crafty experimentation, as in $W_{2} 4,32$, whose cantus firmus, containing 22 notes, is cut into two halves, each of which is stated twice.

The type of motet to bring about the break with the tradition and repertoire of Notre-Dame was the French double motet. This progressive genre, still sparsely represented in $W_{2}$, dominates Cl ; its quantity increases considerably in the fifth fascicle of $M o$, which is far larger than any of the others that make up the old corpus of $M o$. Finally, $B a$ and the last two fascicles of $M o$ contain double motets exclusively, though a good number of them (especially in $B a$ ) have Latin texts. A marginal development that was destined to remain largely unsuccessful was the attempt to revive four-part writing by combining three texted voices over a tenor. Triple motets are preserved in $M o$ (second fascicle) and $C l$, which contains mostly concordances of those in Mo; the presumably earliest of these ( $M o$ 2,32 ) is already included in $W_{2}$. Generally they have French texts; only Cl mixes Latin and French voice parts within four of its triple motets ${ }^{153}$. In most of the motets the quadruplum was added to a pre-existing double motet, mostly with dubious contrapuntal success ${ }^{154}$. What had made it possible for Perotinus to increase the voices of his counterpoint to four was to a large extent his frequent utilization of Stimmtausch, a device that projects chords horizontally. The triple

[^53]motets, on the other hand, are motetish and not organal or conductus polyphony. They declined as a species for the same reason that the few syllabic conducti for four voices in $F$ were unsuccessful: a syllabic style that as a rule operates only with dyads in a two-voice framework rarely exceeding an octave can hardly accommodate four voices, all of which move generally at similar speeds. Perhaps the most successful of the French triple motets is also the earliest, which seems to have been originally conceived for four voices. Like several others it has considerable rhythmic variety; a patterned second-mode tenor is combined with a second-mode motetus and a sixth-mode triplum, while the quadruplum alternates between second and sixth mode.

It is in the double motets, however, that the next decisive phases in the evolution of the species occurred. The very rhythm that had caused the modal system to emerge proved to be the agent of its undoing, since it was the longa in the second mode that had a marked tendency toward subdivision, both melismatic and syllabic. Moreover, while the oldest double motet to employ sixth mode in one upper voice still combines it with first mode in the other ${ }^{155}$, the conjunction of motion in breves with the rhythms of second mode is far more frequent. Sixthmode tripla, some of which halve several of the breves not only melismatically but even syllabically, became common enough for Odington to be able to report that «tertius vero cantus frequenter fit in sexto modo» ${ }^{156}$. The increasing subdivision of the breve and the consequent lengthening of long and breve caused some motets originally composed in relatively slow modes (e. g. modes 3 and 5) to be converted to faster rhythms (e. g. modes 6 and 2). But in effect the frequent association of a second-mode motetus, with more than half of its longae dissolved into ornaments, and a sixth-mode triplum reduced modality to little more than a residual code that hardly reflected the musical actuality.

The disestablishment of the modal system, which was a result of the proliferation of shorter note values and of the increasing, at times nearly prose-like prolixity of the French texts of the tripla, also affected the phrase structure of the motets. The natural, more or less foursquare and dance-like swing of the modal ordines gave way to a more complicated phraseology, whose relatively complex rhythms are defined by the underlying inescapable regularity of the impartial beats of the breves. A value containing three such beats was no longer «ultra mensuram», but became the unit of measurement and was called perfect (longa perfecta); the «notae impares» of an ordo became «principia perfectionum». A kind of rhythmic chromaticism thus undermined the modal system. While a modal phrase in a Notre-Dame composition is generally a rhythmically homogeneous indivisible whole, a phrase in a «Franconian» motet is determined by the discretionary decision of the composer to have it contain a chain of x perfections.

[^54]A new way of measuring time by mechanical units impinges on organic time as experienced. Significantly, «the appearance of [this] mensural music coincides with the invention of the mechanical clock... , which since the $13^{\text {th }}$ century gradually displaced the older clock types operating with water or sand, and the sundial. The bells of a public clock indicate the hours with their invariable length and move the numerically first hour from sunrise and sunset to noon and midnight.> ${ }^{157}$

It is at this time, i.e. about 1250, that Notre-Dame ceases to be the outstanding leader in the field of music. In contrast to the sixth fascicle of $M O$, not even a third of the motets in its fifth fascicle are concordances or contrafacta of Notre-Dame compositions. The last fourth of the repertoire contains no such work; nearly all the motets (Nos. 153-176) are unica. The enormous international dissemination of the Notre-Dame motet repertory with its endless adaptations not only attests its popularity in educated circles, but also reveals it as a kind of ready-made proving ground for the study and practice of motet techniques. Toward the end of the $13^{\text {th }}$ century this communal aspect of art music gave way to a situation where individual compositions were generally no longer subject to being remodeled ${ }^{158}$. Of the old corpus of $M o$ the fifth fascicle contains the smallest percentage of motets based on clausulae, and more than half of the latter are $\operatorname{St} V$ clausulae ${ }^{159}$.

Just as the appearance of second-mode rhythms had given rise to the formulation of the modal system, the use of the semibreve as an independent syllabic rather than a merely ornamental melismatic value precipitated the Franconian system. Single pairs of syllabic semibreves, which had already cropped up in the second half of Ypocrite pseudopontifices, become more common in a fair number of motets in the fifth fascicle of $M_{o}{ }^{160}$. One motet in $W_{2}(3,10)$ already has two successive pairs of syllabic semibreves. Most progressive in the old corpus of Mo are the tripla of Nos. 39 and 40 , both of which also appear in $C l$; the triplum of No. 40 subdivides many of its breves into three syllabic semibreves ${ }^{181}$. The semibreve now replaces the breve as the short durational value, and the resultant lengthening of the breve further increases the ornamental animation of the moteti ${ }^{182}$, which usually do not participate in the lively declamation of the tripla,

157 Willibald Gurlitt, Form in der Musik als Zeitgestaltung, Mainz/Wiesbaden 1954, 654 (Akademie der Wissenschaften und der Literatur, Abhandlungen der Geistes- und Sozialwissenschaftlichen Klasse XIII).
${ }_{158}$ Ludwig, Repertorium, 380, 454.
159 The proportion of $S_{t} V$ clausulae is considerably smaller in all the other fascicles. All indications - including $M_{0} 164$, which is the first motet with binary mensuration of the longa (modus imperfectus) and, like No. 168, with a secular tenor (see n. 168 below) - are that, contrary to Ludwig's assumption (Repertorium, 351), the bulk of Mo 5 is younger than the remainder of the old corpus of Mo. Only some of the tripla of Mo 3 are equally progressive.

180 Rokseth, Polyphonies IV, 78.
${ }^{161}$ The two cases of four semibreves are probably a scribal error. Cf. Sanders, «Duple Rhythm », 254 n. 15.
though several motets have Franconian rhythms in both upper voices ${ }^{163}$. While in the Notre-Dame repertoire the declamation could generally be deduced without the help of its inadequate notation, because there was considerable congruity between musical and poetic rhythm, the new stylistic situation, which often disregards the accentual values of French poetry ${ }^{164}$, makes the rise of a new notational system inevitable ${ }^{165}$. Since the Franconian notation is not exclusively a ligature notation «cum proprietate», the mingling of rhythms stemming from «inconsistent» modes such as 1 and 2 now becomes possible ${ }^{166}$. Modal consistency in a composition, formerly breached only in some cases of refrain citations, is no longer a matter of concern.

The second half of the century, then, witnessed a great deal of experimentation and gradual abandonment of the ways of Notre-Dame music ${ }^{167}$. The changes affected not only rhythm and declamation, but also the reservoir from which tenors were selected. Thus, the fifth fascicle of Mo adds new tenors not only from responsorial chants not previously utilized (Nos. 77, 105, 144, 173), but introduces other types of chant, e.g. Seculorum amen (No. 112), Victimae paschali laudes (No. 174), two neumae (Nos. 117 and 139), and two secular tenors (Nos. 164 and 168) ${ }^{168}$. Finally, the compositions increasingly contain phrases totaling an uneven number of durational units, and sometimes defy any attempt at rational analysis, though some motets whose structure has been characterized as «freie Periodenbildung» ${ }^{169}$ (Mo 278) reveal a design that is better described as a mixture of freedom and sophisticated planning ${ }^{170}$ :
${ }^{162}$ Ludwig, Repertorium, 423.
${ }^{165}$ E.g. Mo 280.
164 In Rokseth's opinion the demise of modal rhythm and the rise of the Franconian style are intimately bound up with the prosodic properties of the French language ( $\alpha$ Or, la langue vulgaire se prête à cette volubilité, qui sied mal au Latin. $\%$ ) and she points out that in the third fascicle of $M o$ the only triplum with a Latin original is a contrafactum of Ypocrite pseudopontifices (Polyphonies IV, 76; cf. etiam 251). But she surely goes too far when she claims that the poems were generally only «un prétexte à musique, sans valeur propre et sans importance» (ib., 235).
${ }^{165}$ See Ludwig, « 50 Beispiele», 184 s .
146 E.g. the tenors of $M o 257$ and 323.
167 For details see Besseler, «Studien II», passim. It should be added that the evolution of the motet evidently had conditioned musical hearing to such an extent as to affect the performance of organa, since both Franco and Anonymus IV recommended that in organal passages the tenor adjust itself to dissonances by resting or subtly detouring to a more consonant note.
${ }^{168}$ The tenor of No. 168 (Valare) can hardly be Gregorian. Cf. Ludwig, Repertorium, 377 ; J. Handschin, «The Summer Canon and Its Background II», MD V (1951), 79.

149 Besseler, «Studien II», 176.
170 There are several cases in which the curse of the bar line has prevented modern editors from perceiving the structure of a motet. Thus, Mo 5,115 consists of two halves, articulated in a manner mirrored also by the poetic structure (the irregular phrase at the end of the triplum is a refrain):
Triplum: $[5+4+4+4+4+4 \mathrm{~L}]+[2(4+5 \mathrm{~L})+7 \mathrm{~L}]$
Motetus: $[8 \mathrm{~L}+(4+5 \mathrm{~L})+8 \mathrm{~L}]+[8 \mathrm{~L}+(8+1 \mathrm{~L})+8 \mathrm{~L}]$

Triplum: $(10+8+8+9 \mathrm{~B})+(10+12+7 \mathrm{~B})+(12+8+9 \mathrm{~B})$
Motetus: $(8+6+10+7 \mathrm{~B})+(12+6+6+7 \mathrm{~B})+(8+10+6+7 \mathrm{~B})$
Tenor: $3[6(4 \mathrm{~B})+7 \mathrm{~B}]$
For most of the $13^{\text {th }}$ century the English predilection for tonally unified conducti (with or without Stimmtausch) and rondelli seems to have prevented the technique of the Continental motet from taking root. To be sure, works that look and act like motets and were apparently referred to as such were composed in great number, to judge from the pitiful scraps and fragments that still exist ${ }^{171}$. Nonetheless, most of them differ in a fundamental respect from their Continental counterparts, since they are not based on a patterned cantus firmus, but on a tonally unified «pes» ${ }^{172}$, which in many cases accommodates Stimmtausch in the two upper voices. (The rarity of motets for a pes and one upper voice as well as the relative frequency of four-voiced compositions are explained by the English fondness for full chordal sound involving the third.) In contrast to the Continental clausula motet, which is texted music, an English motet without cantus firmus generally makes the impression of a musical setting of poetry, supported by a pes. Since its texture and sonority are conceived as homogeneous or nearly so, it is related to the cantilena, while the Continental motet characteristically forges unity out of antinomic components.

Under these circumstances the tenor is not always a useful criterion for the differentiation of genres.
Ex. 33 The following identifications should be added to Example 33: WF, Nos. 92 (conductus) and 10 (motet).


Tenor: $\quad[1 L+6(2+2 L)] \quad+[5(2+2 L)+(2+3 L)]$
The final rest in Mme. Rokseth's edition distorts the structure.
${ }_{171}$ Sanders, «Tonal Aspects», 24 n. 38.
${ }^{172}$ For a discussion of this genre see ib., 20-27; further details are in chapter II A of this writer's dissertation (Medieval English Polyphony and Its Significance for the Continent, Columbia University 1963 [ms.]).

But neither are polytextuality and staggered phrasing distinguishing marks, since both can occur in rondelli ${ }^{173}$, which are as a species closely related to conducti ${ }^{174}$, while polytextual Stimmtausch motets (e.g. Tota pulchra/Anima mea in Princeton University Library, Ms. Garrett 119) are rare. Most of the preserved sources of the $1^{\text {th }}$ century show that the border lines between polyphonic genres were far more fluid in England than in France. Thus, the extant English repertoire exhibits a degree of stylistic homogeneity that accounts for the fact that conducti, rondelli, and motets of all varieties are generally not separated in the manuscripts. Procedures that in France characterized distinct genres sometimes even occur in one composition. For instance, the first half of the fragmentary $W F$ No. 13 seems to be a rondellus, after which there follows a «motet» over a thrice stated pes, which is only labeled «ter». In two of the compositions in Chicago, University Library, Meaux Abbey musical fragments appendix to Ms. 654, the freely composed tenor carries a poetic text of its own, while the two upper voices share another text in the fashion of a conductus motet; one of the pieces also contains a rondellus section, while the other ends with a lengthy passage in which the upper voices, engaging in Stimmtausch, alternately declaim the text. More often than not the phrases of the three voices overlap.

In fact, many pes motets exhibit sophisticated phrase structures that are admirably elegant, e.g. $W F$ No. 71, a motet without Stimmtausch:

```
Triplum: \([2(8 \mathrm{~L})+2(10+8 \mathrm{~L})+8 \mathrm{~L}]+[10 \mathrm{~L}+2(10+8 \mathrm{~L})+14 \mathrm{~L}]\)
    \(+10 \mathrm{~L}+8 \mathrm{~L}\)
Duplum: \([(2+8 \mathrm{~L})+2(10+8 \mathrm{~L})+14 \mathrm{~L}]+[2(8 \mathrm{~L})+2(10+8 \mathrm{~L})+8 \mathrm{~L}]\)
    \(+8 \mathrm{~L}+10 \mathrm{~L}\)
Tenor: \(\quad 2[5(6 \mathrm{~L})]+2[5(6 \mathrm{~L})]+3(6 \mathrm{~L})\)
```

Each of the upper voices therefore consists of 14 phrases and one double phrase (14L), which accommodate the eight couplets of their respective poems; the procedure forces the fourth couplet to be split by the two main sections of the piece.

Among the freely composed motets of the main corpus of the $W F$, No. 36 represents an altogether extraordinary triumph ${ }^{175}$. Its pes, stated twice, is similar to those in motets with Stimmtausch; however, in this motet it is not constructed AA A'A' A" $A^{\prime \prime}$ etc., but consists of four different phrases ( $A, B, C, D$ ), of which the second is a sequential repetition of the first, and the last is related to the second. Since their arrangement makes Stimmtausch impossible, certain motivic correspondences are brought into play; e.g., in the first of the two sections of the motet, A and B, which occur, paired, in three different versions, are always linked by the same musical material in the duplum; the missing triplum must have had similar

[^55]features. The duplum poem consists of seven stanzas, all of which begin with a trochaic heptasyllabic verse and end with an iambic verse of the same length. The intervening verses are octosyllabic iambics. The final verses of all stanzas have the same rhyme syllable, while the remaining verses rhyme only within each stanza. One continuous musical phrase accommodates the poetry of each stanza.

## Triplum

poem (Missing)
 (in L)
(St. $=$ stanza; $\mathbf{v} .=$ verse. - The last two syllables are stretched over three L, while the remainder of the poem is set strictly syllabically in the first rhythmic mode.)

The second section of the piece is a $4: 3$ diminution of the first, except for $A_{3} B_{3}$, which is reduced $3: 2$, in order to adjust the phrase to the others, which are all patterned in multiples of 2L. The type of diminution applied in this piece converts the longae of the pes in the first section into delightfully irregular rhythms in the second (combinations of the first and fifth modes); perhaps it would therefore be more precise to refer to it as a technique of compression rather than diminution.

Cantus-firmus motets are quite rare in the preserved sources. Apparently, the Continental procedure of constructing a motet over an excerpt from a plain song was so foreign to some of the English composers that the cantus firmi, many of which contain internal repetitions, as a rule are not identified in the manuscripts ${ }^{178}$; in at least one case ( $W F$ No. 70) the tenor is labeled «pes», even though the three upper voices have tropic texts. There must necessarily be some uncertainty whether the pedes of a few of the English $13^{\text {th }}$-century motets are in fact freely composed or cantus firmi; a dividing line is not always discernible, especially in view of the occasional tampering with the melodic substance of a Gregorian tenor ${ }^{177}$. Whether a pes was at the same time a more or less exact citation of a cantus firmus must have been less important to certain English composers of the time than to their French colleagues or, for that matter, to modern musicologists. Not only the frequent use of the term «pes», but also the nearly complete identity of pedes (cantus firmi?) for motets with different texts are telling factors. But in all probability, seemingly doubtful cases should be regarded as freely composed. Sometimes a cantus firmus, especially if it is internally repetitive, is shaped so as to resemble a pes, as in $M o 4,70^{178}$. Many tenors, while not arranged in the re-

[^56]petitive rhythmic ostinato patterns of French 13 th-century motets, consist of modal rhythms and varying modal ordines, which are combined into dance-like phrases ${ }^{179}$.

Generally, the motets for four voices consist of a pes or tenor and three separately texted voices. In a few cases two upper parts are supported by a pair of textless voices, one of which is usually an unpatterned filler and may be either unlabeled or designated as «secundus tenor», «quartus cantus», or even, in the case of $W F$ No. 95 , as «primus tenor» ${ }^{180}$. A relatively early and so far unique example is a composition appearing in a source (Cambridge, Trinity College Ms. 0.2.1) that contains only conductus motets, which are otherwise all for three voices ${ }^{181}$. It is curiously suggestive that the pattern of its tenor - a single note followed by two ternary ligatures - also exists in the Notre-Dame corpus, but only in one case, a clausula on the same melisma ( $\left(\mathrm{Et}\right.$ confitebor») ${ }^{182}$. In England, however, it was more common ${ }^{183}$.

The expansion of the two-voice framework beyond one octave, within which the voices of $13^{\text {th }}$-century polyphonic compositions usually accommodate themselves, causes Stimmtausch to become a moribund practice around 1300. Among the few Stimmtausch motets of the early $14^{\text {th }}$-century there are, in addition to three freely composed motets ${ }^{184}$, four other compositions, which, in contrast to the Stimmtausch motets of the $1^{\text {th }}$-century, are based on a liturgical cantus firmus throughout. The inevitable result of the association of Stimmtausch technique with plainsong cantus firmi is that the quality of regular harmonic alternation, of a varied tonic ostinato, so characteristic of $13^{\text {th }}$-century compositions with Stimmtausch, is absent from these later works. This is particularly striking in a motet based on part of the responsory Filie Jerusalem that is preserved in ONC. The structure of the motet is determined by the three statements of the tenor, over which the upper voices engage in a varied Stimmtausch procedure, while the

[^57]quartus cantus, though the most freely designed of the parts, is also rather repetitive because of the limitations imposed by the contrapuntal situation set up by the other voices.

Whereas theoretically any suitable cantus firmus, if repeated, should furnish a satisfactory basis for a Stimmtausch motet, in the majority of the extant cases the composers selected as tenors such melodies as are internally repetitive, though repetition was usually imposed on the cantus firmus anyway. An admirable case in point is furnished by a motet fragmentarily preserved in ONC, which appears as two motets in $M o(340 / 341)^{185}$. One would think that the double-versicle structure of the prosa that serves as tenor would have prompted the composer to arrange the Stimmtausch of the upper voices in the following manner:

$$
\begin{array}{ll}
b & a \\
a & b \\
\text { A } & A
\end{array}
$$

However, this is not the case in the first part of the piece ( $=$ Mo 8,340 ), which has the fourth stanza of the prosa Epiphaniam Domino canamus for a cantus firmus ${ }^{188}$. The music for this (as well as for the seventh) stanza features internal repetition; the double-versicle structure is aab aab. The first part of the motet consists of two halves, each of which presents this cantus firmus once; in other words, the tenor states aab four times ${ }^{187}$. In the first half the internal repetition produces Stimmtausch in the upper parts, but only in the second half is the second of the two constituent sections also a Stimmtausch repetition of the first:

$$
\begin{aligned}
& \text { bad feh jilijk } \\
& \text { abcefgijk jil } \\
& \text { AAB AABAABAAB }
\end{aligned}
$$

Only in the second of these four sections do the upper voices carry (tropic) text, arranged alternately in typical rondellus fashion. Thus, this motet from the turn of the century furnishes another striking example of the consanguinity of motet (cantus firmus), rondellus (Stimmtausch), and conductus (cauda) in England, especially as the caudae, like those of several conducti, vary the substance of the original material of the section «cum littera» both rhythmically and melodically.

The double-versicle form of the fifth stanza of the prose, which is the cantus firmus of the second part of the motet ( $=$ Mo 8,341) is straightforward. Again, however, the melody is stated twice, and the second part of the motet is constructed analogously to the first part :

$$
\begin{array}{llll}
b & a & d & c \\
a & b & c & d \\
A & A & A & A
\end{array}
$$

(b carries the tropic text, in the same manner as does $f$ in the first part).

[^58]Two motets have been preserved in which the cantus firmus itself is subjected to Stimmtausch. Salve iubar/Salve cleri ${ }^{188}$ is also based on a prose ${ }^{189}$, whose phrases, equipped with free counterpoint and at first stated almost exclusively in ternary longae, are repetitively divided among the two lower voices in Stimmtausch fashion, except that the first section is a prelude or introitus with freely designed lower voices. Stimmtausch is also applied to the two upper voices, which alternately declaim the almost completely tropic text. The texture of the piece, while not exactly like a hocket, makes the impression of «style brise» ${ }^{190}$.

A similarly constructed motet is Ave miles/Ave rex in Oxford, Bodleian Library, Ms. E Museo 7(OxfEMuseo 7); the tenor is a Vespers antiphon. A curious feature remarked by Bukofzer in his detailed discussion of the piece is the fact that the cantus firmus of the short coda, which is labeled «Evovae» in the manuscript, is one of the differentiae of the first psalm tone for the Magnificat ${ }^{191}$. It is plain that the composer could hardly have been more mechanically faithful to his chant source, but the liturgical inappropriateness of the procedure places in doubt Bukofzer's statement that the antiphon «could be and probably was replaced in the liturgy by the motet», especially as he immediately goes on to point out that «the upper voices form a trope not only to the antiphon but at the same time to Benedicamus Domino» ${ }^{192}$. (The section preceding the coda contains these words.) Harrison calls it a Benedicamus substitute ${ }^{193}$.

It seems that in both of these Stimmtausch motets, as in many motets without cantus firmus, the design was dictated by the top voice(s), so that with respect to rhythm and phrasing the cantus firmus is treated with an unusual lack of orderly regularity. Another case in which the irregular shape of the cantus firmus is the result of the (isoperiodic ${ }^{194}$ ) design of the upper voices is the motet Januam/Jacintus/Jacet granum in $O N C^{195}$. It is noteworthy that this piece, which treats the cantus firmus as an element of secondary structural importance, presents the first known case of a solus tenor (labeled «tenor per se»).

A good many English motets written in the late $13^{\text {th }}$ and early $14^{\text {th }}$ centuries have a carefully regulated phrase structure ${ }^{190}$. While in the bulk of the main body of the so-called Worcester Fragments isoperiodicity is relatively rare, and

187 The rhythmic arrangement of the cantus firmus underscores its phrase structure: a (fourth ordo, first mode), $\mathbf{b}$ (four longae perfectae).
${ }^{188}$ Oxford, Bodleian Library, Ms. Hatton 81 (Oxf Hatton 81).
189 Harrison, «English Church Music», 91, where the piece is discussed,
100 The rondelli WF Nos. 31 , which exists in an ONC concordance, and 93 are stylistically similar.
${ }_{101}$ Studies in Mediaeval and Renaissance Music, New York 1950, chapter I.
$192 \mathrm{Ib} ., 23$.
103 Harrison, Music in Medieval Britain, 146.
104 Cf. infra n. 196.
105 Harrison, «English Church Music», 84s and 86s.
${ }^{106}$ The staggered regularity of these phrase arrangements was called isoperiodicity by Besseler and Handschin.
harmony and tonality fuse the three or four lines of a composition, these latter factors now are either given up or become ancillary in structural importance to the regular interlacement of phrases. Thus, the four voices of Petrum cephas/ Petrus pastor in Oxf E Museo 7 are arranged as follows ${ }^{197}$ :

\[

\]

(The Quartus cantus is free.) The nine-measure phrases are eight-measure units stretched by lengthened initial arses. While the beginning of each duplum phrase coincides with the last note of each triplum phrase, the beginning of the latter coincides with the last note of each tenor ordo (second ordo of che fifth mode plus a rest of three longae perfectae); furthermore, the end of each duplum phrase and the beginning of each tenor ordo coincide. The distribution of the four statements of the cantus firmus is independent of the phrase structure.

An extraordinarily balanced structure is Solaris/Gregorius/Petre/Mariounette in $O N C$ :

$$
\begin{aligned}
& (9+1 \gtrdot L)+4(8+1 \diamond L)+8 L \\
& (13+1, L)+4(8+1, L)+4 L \\
& 8 L+3(8+1\rangle L)+2(4+\langle 1, L)+9 L \\
& (11+\langle 1\rangle L)+2(8+(1\rangle L)+2(11+\wedge 1\rangle L)
\end{aligned}
$$

Where all four parts proceed in nine-measure units, a repetitive pattern of overlapping phrases results. Similar designs are quite common, e.g. $W F$ Nos. 64, 79 (reconstructed), and Fusa/Labem in the Hatton manuscript.

An especially sophisticated specimen is the motet on the Pentecostal hymn in Cambridge, Corpus Christi College Ms. 65, fol. 135 b ; unfortunately, only the cantus firmus and one upper voice are preserved. The tenor carries the notes of the hymn ${ }^{198}$, while the extant upper voice quotes the words of the first five stanzas; in the middle of each pair of verses a tropic word is inserted ${ }^{199}$.

In both motets preserved more or less completely in the fragmentary source London, British Museum, Ms. Sloane 1210, the middle voice moves only in slow note values in a manner usually associated with motet tenors ${ }^{200}$. In the case of Zelo twi langueo/Reor nescia the unlabeled middle voice ${ }^{201}$, consisting of four statements, is laid out in the first ordo of the old fifth mode. The surrounding two

[^59]voices are made up of four-measure phrases (six breves per measure), arranged in such a way as to produce a regular catenary arrangement of rests.


However, the construction is more ingenious than the graph indicates, since each phrase of the two texted voices actually consists of a pair of phrases, with the consequent linked to its antecedent by filler material that decidedly has the quality of an arsis taking the place of a rest. The phrase subdivision is unmistakeable, since the first half of the second and fourth measure of each phrase (except m. 2) is occupied by a longa perfecta. The arrangement of the texted voices not only causes each antecedent phrase of the one to coincide with each consequent phrase of the other, but also reinforces all phrase endings by making them coincide with the first note of each tenor ordo, whose second note is placed in relief by the light counterpoint of the otherwise isolated filler material of one of the other voices.


Since the top voice enters one measure before and the bottom voice one measure after the tenor's entrance in measure 2, the periods concluding the piece are five and three measures long, respectively.

The graph of the Sloane motet clearly shows that isorhythm began as a clarification of the cadential points of phrase structures. Not until the appearance of panisorhythmic ${ }^{202}$ motets in France (Machaut) does isorhythm change from an accessory element, contributing to the articulation of structure, to an essential ele-
${ }^{20 z}$ The term was coined by Willi Apel («Remarks About the Isorhythmic Motet », Les Colloques de Wégimont II [1955], 139).
ment of form. The other, fragmentary, Sloane motet could be posited as a further step in the evolution. The phrases of each voice maintain a repetitive rhythmic similarity, which is nearly isorhythmic.

The most rigorous of these pieces is the single palimpsest in ONC, Rosa delectabilis/[Regali]/Regalis ${ }^{203}$; it has a modally patterned cantus firmus in the middle voice and a phrase structure that again exhibits the typical regular tracery of rests :

$$
\begin{aligned}
& 5 \mathrm{~L}+12(4 \mathrm{~L})+7 \mathrm{~L} \\
& 7[2(4 \mathrm{~L})]+4 \mathrm{~L} \\
& 6 \mathrm{~L}+12(4 \mathrm{~L})+6 \mathrm{~L}
\end{aligned}
$$

The most strictly constructed part is the top voice, but there can be no question that the piece was conceived as a duet draped around the cantus firmus, since the one measure in each phrase of the bottom voice that is isorhythmic has the same rhythmic design as the simultaneous measure of the top voice; moreover, both voices, which at those points have their liveliest rhythms and move mostly in parallel sixths and, less frequently, tenths, are left exposed for that measure by the longa rest in the middle voice ${ }^{204}$.


Limitation of space forbids inclusion of the variation motet in this discussion, particularly as most compositions of this type are not based on liturgical cantus firmi ${ }^{205}$. One four-voiced composition, however, is so outstanding that it warrants a brief description. It is one of the last representatives of Stimmtausch technique and has an expansive and complex design far exceeding its closest relative, the Hostis Herodes (Oxf Hatton 81) discussed by Harrison ${ }^{208}$. Unfortunately, this motet De sancta Katerina, though appearing in three manuscripts ${ }^{207}$, is fragmentary in all of them; only the third and fifth of its five sections, to whose different types of rhythm a «mensuration symbol» calls attention, can be fully reconstructed. The tenor is given in Ex. 38.

[^60]

The phrase structure of the texted voice is meticulously shaped. But a far more significant feature is revealed by an examination of the five sections, each of which accommodates a quatrain of specific verse structure. A measure count shows them to be carefully constructed as a particular embodiment of fundamental numerical proportions: 12:8:4:9:6 ${ }^{208}$. It seems impossible that this layout, which includes the numbers of the «musical» or «perfect» proportion, could be fortuitous ${ }^{209}$. Since the Franconian notation in all three sources and the general paleographic evidence in one of the London manuscripts indicate that the work cannot have been composed any later than in the first two decades of the $14^{\text {th }}$ century, its importance can hardly be overstressed.

Many other compositions treat a chant melody in a rhythmically free manner, revealing a compositional attitude somewhat resembling that which produced the song motet of later times. One of the most unusual of these hybrid compositions (Doleo super te/Absalon ${ }^{210}$ ) is preserved in Cambridge, Gonville \& Caius College,
${ }^{208}$ Only the second section exceeds its proportion by two longae ( 38 instead of 36 ); it is also the only section in which the phrase layout of the texted voice is slightly irregular: $2(8+\langle 2\rangle \mathrm{L})+(8+8+\langle 2\rangle \mathrm{L})$, rather than $2(8+8+\langle 2\rangle \mathrm{L})$.
${ }^{200}$ Cf. Oskar Becker, «Frühgriechische Mathematik und Musiklehre», AfMw XIV (1957), 160.
${ }^{110}$ Published and discussed by Handschin («Summer Canon II», 88s).

Ms. $543 / 512$. The triplum quotes the entire text of the antiphon Doleo super te, which in turn is a somewhat free version of David's plaint for his friend Jonathan. The text of the duplum, on the other hand, quotes the second half of the antiphon Rex auter David, which is a slightly altered version of David's plaint for his son Absalon. To both texts four words are added as narrative epilogue. The antiphons are for the Magnificat of two different Saturdays after Trinity, so that there can be little doubt that the motet is unliturgical. While the triplum, which has a dramatically exposed solo entrance, is freely composed, the duplum has the notes of the relevant portion of Rex autem David, transposed up an octave, but otherwise quite accurate, except for the text «(mo)riar pro (te)». The second half of the antiphon is formally defined by the musical rhyme over the two appearances of the words «fili mi Absalon», which separates the chant into two disparate parts. However, evidently the composer took note of the melodic resemblance of «Absalon fili mi» and «(mo)riar pro te», which causes the excerpt to have an ABA' form ( $a b$ c a'b). In designing the duplum he manipulated a' sufficiently to make it almost identical with a. Nonetheless, the motet turns out to be a variation form ( $\left.A_{A^{\prime}}\right)^{211}$, since the composer balanced the music for the epilogue (d) against the first half of $c$, the end of which is crammed into the first measure of the second section; this extraordinarily clever manipulation explains the rest in the first measure of the piece. Thus, the form of the duplum is

$$
\underbrace{a b c}_{A} \underbrace{\mathbf{a}^{\prime} b \mathrm{~b} d}_{A^{\prime}}
$$

Ex. 39


[^61]

Because of its rather conventionally patterned rhythmic layout, Handschin considered the tenor a typical cantus-firmus carrier and therefore invested it with a rather tenuous relationship to the antiphon. There can be no question, however, that the structure of the motet derives from the duplum; Handschin's statement that «the T. is composed, as normally, of two expositions, and the M. more or less joins it in this respect (this repetition existing already in the Antiphon melody)» fails to give the composer his due ${ }^{212}$. Once it is recognized that the tenor is in all likelihood not a pre-existing melody, it is no longer possible to see, as did Handschin ${ }^{213}$, an analogy between this piece and Dunstable's motet Veni sancte spiritus, which indeed uses cantus-firmus material in two of its voices. It is, however, undeniable that a sort of varied pervading imitation exists at the beginning of the piece; the triplum may perhaps even be said to contain an early example of «Vorimitation».
Of the remainder of English $14^{\text {th }}$-century polyphony the overwhelming majority adds nothing to the motet repertoire. Only two fragmentary sources transmit complete isorhythmic motets approximately of the mid-century, and the contents of both (the rear flyleaves of $O x f \mathrm{E}$ Museo 7 and of Durham, Cathedral Library, Cod. C 1.20, one of the three sources recently discovered in Durham by Frank Ll. Harrison) are partly made up of Continental motets ${ }^{214}$. Yet, our knowledge is far too fragmentary to permit any definite conclusions about the English motet production of the middle and later $14^{\text {th }}$ century. The Durham manuscript contains an isoperiodic composition, whose startling originality points up the danger of basing inferences or even assumptions on fragmentary evidence ${ }^{215}$.
Ex. 40


Dulcis virgo tenor
quarter of the fourteenth century a motet style evolved in a German-speaking area that approached the strophic form. However, the pieces are more primitive, both technically and texturally (they are a 2). Cf. J. Handschin, "Angelomontana Polyphonica», Schweizerisches Jb. für Musikwissenschaft III (1928), 81-84.
${ }^{112}$ Handschin, «Summer Canon II», 90.
${ }_{113} \mathrm{Ib} ., 91$.
244 Besseler, «Studien I», 184; 222 n. 1; «Studien II», 239; Harrison, «Ars Nova*.
${ }^{216}$ Fol. $336^{* \prime}$. The periodic twinning of the triplum is marked by initial Stimmtausch or some other imitative device.


Several different trends manifest themselves in the Continental repertory of the late $1^{\text {th }}$ century. The major achievement of Petrus de Cruce of Amiens (fl. ca. 1280-1300) was to progress beyond Franco's ternary subdivision of the breve. Jacobus Leodiensis well conveys the sense of adventure that marked this experimentation; Petrus «primo incepit ponere quatuor semibreves pro perfecto tem-
pore in triplo illo: ... Postea idem ampliavit se et posuit pro uno perfecto tempore nunc quinque semibreves, nunc sex, nunc septem in triplo illo: ... Unus autem alius pro perfecto tempore non modo quinque semibreves, sex et septem posuit, sed etiam octo et aliquando novem ut patet in triplo qui sic incipit: ...> ${ }^{216}$ This proliferation of the semibreve did not infect the motetus or tenor; the former basically continued to exhibit steady modal rhythm (usually first mode), a circumstance that doubtless accounts for Jacobus's approval of these pieces. The tenors of motets in Petronian style usually move in unpatterned longs or double longs; only the second section of Mo 7,253 has a first-mode tenor pattern, with the result, however, that the triplum contents itself with Franconian rhythms. The breve's increasing subdivision, which was more often syllabic than melismatic, correspondingly retarded the speed of both lower voices. Despite its text, the musical facture of the motetus seems often closer to the tenor than to the triplum; hence Petronian motets tend to make the impression of a triplum supported by two lower and slower voices. The rapid triplum, which never hockets with the motetus ${ }^{217}$, can properly be described as romantic virtuoso music. The precipitous declamation of its French text is rhythmically and prosodically so capricious ${ }^{218}$ that it often seems to approach rhymed prose, with one main rhyme apportioned to the endings of the musical phrases. Generally, these motets with their formless tenors resist all analytical search for rational phrase structures. The music primarily serves the declamation virtuoso.

A second major type shares with the Petronian motet its cultivation of French poetry and, insofar as it is already prominently represented among the motets for two voices, its tendency toward accompanied-song texture. In contrast to the Petronian style, however, the tenor of this type is lively, at times to the point that its patterns are no longer modal, but approximate the rhythms of the upper voice(s). The evolution of such motets was set in motion with the appearance in the Notre-Dame repertoire of tenor patterns containing breves, and perhaps propelled further by such clausulae as $S t V$ Nos. 25 and 35 , in whose final sections the tenor consists solely of breves. The diminution technique of these clausulae permits explanation of their last sections as a particular kind of pattern, and even the repeated rhythmic design of the tenor of Mo 6,224 is still a pattern, though barely modal. But a cantus firmus like that of $M o 7,296$, whose capricious design is a result of the need to fit it to the «virelaiartige Balladenform» ${ }^{219}$ of the motetus,
${ }^{210}$ Speculum musicae, CS II, 401. According to Robert de Handlo (Regulae, CS I, 389 s) and Johannes Hanboys (Super musicam continuam et discretam, ib. 403 ss , especially 424s), «unus autem alius» must have been Johannes de Garlandia (the younger).
${ }^{117}$ H. Husmann, «Hoquetus», MGG VI (1957), 705.
${ }^{118}$ Ludwig's distaste shows up unconcealed (Repertorium, 422 and 425; «Musik des Mittelalters», 255). More detailed discussions of the Petronian style are in Ludwig, «50 Beispiele», 206 s et 213 ; id., Repertorium, 449 s ; Besseler, «Studien II», $151 \mathrm{~s}, 160,166 \mathrm{~s}$; Rokseth, Polyphonies IV, 226, 251.

119 Gennrich, «Trouvèrelieder und Motettenrepertoire», 80.
has shed almost all aspects of modal patterning; it even includes semibreves. Other unmodal tenors are those of Mo 7,257, 7,283, and, especially, of Mo 8,311; the latter even hockets in semibreves with the motetus.

Apart from the rise of highly irregular tenor designs, the dissolution of the modal system affected the fundamental voice of the motet in two other significant ways, one of which was the introduction of secular «cantus firmi», which invariably retained their original rhythms and shape ${ }^{220}$. While the fifth fascicle of $M o$ contains only two such motets, their proportion is strikingly greater in the seventh fascicle. Moreover, the manner in which a secular cantus firmus is laid out sometimes influences the design of Gregorian tenors. In several motets with a plainsong tenor, including Mo 257, 283, and 311, just cited for the unmodal liveliness of their tenors, the «pattern» of the cantus firmus does not subdivide each tenor statement, but encompasses it, with the result that the shorter tenor melodies are in effect ostinati (e.g. Mo 279, 288, 315); just as in the case of secular tenors, these cantus firmi are treated like tunes with an unpatterned rhythmic shape. Of course, in many such motets all three voices tend toward rhythmic homogeneity ${ }^{221}$.

A further result of the abandonment of modal patterns was the logical outgrowth of the tendency of the two-voiced French motet towards the accompanied song. Several such pieces had bent the Gregorian cantus firmus by means of pitch changes, imposed internal repetitions, or, finally, irregular rhythmic design. Ultimately, two-voiced compositions appear, Latin as well as French, in which the tenor is neither a cantus prius factus (Gregorian or secular) nor patterned, but freely composed and so molded as to fit the contours of the duplum, on which it in effect depends and without which it has no meaning and no inner consistency. Thus, these tenors neither carry the main melodic interest (as in the conductus) nor serve as the structural backbone (as in the motet). Examples of such pieces are the strophic composition in ballade form published by Handschin ${ }^{222}$, the first three compositions in Fauv ${ }^{223}$, even though they are grouped among the motets in the table of contents, and two specimens published by Jacques Chailley ${ }^{224}$. Such pieces are accompanied songs or duets; none of them can properly be called a motet.

[^62]An additional subspecies was the Latin double motet, which seems to have led its existence mainly apart from what has always been regarded as the dominant school in France. As a more or less distinct type it evidently branched off early in the $\mathbf{1 3}^{\text {th }}$-century from the Perotinian conductus motet ${ }^{2255}$; its manuscript distribution indicates that it was cultivated particularly in areas peripheral to central France ${ }^{226}$. Generally, motets of this type exhibit a continuing affinity with the conductus; they also have texts that retain a traditional tropic relationship to the cantus firmus and are therefore topically affiliated to each other. In fact, several cases indicate an attitude that bypassed the clausula and points back to the troped organum, since they tropically elaborate Gregorian melodies which generally do not belong to the specialized clausula repertoire ${ }^{227}$. It is this attitude that accounts for the occasional appearance of liturgical prose texts in the upper voices ${ }^{228}$. At the same time this feature also links this type of motet with the conductus, some of which likewise set liturgical texts, troped ${ }^{229}$ or untroped ${ }^{230}$. Moreover, several motets utilize conductus poetry, e.g. Mo 8,326 and Fauv No. 26 (78), and in most peripheral manuscripts motets and conducti are not grouped separately. A further characteristic feature is perspicuity of form, often delineated by melodic or rhythmic devices and, in a number of cases, by melismatic «caudae». The simpler compositions exhibit uncomplicated phrase structures, with the upper voices either declaiming their related texts homorhythmically or mutually alternating syllabic and melismatic passages in a manner vaguely reminiscent of the English Stimmtausch motet ${ }^{231}$. But many apparently peripheral motets, especially the early works, presumably written in the first third (or at least the first half) of the $13^{\text {th }}$ century, exhibit a fine concern with elegant phrase structure, often supported by unusual tenors that were evidently selected for their concision or because of their patently repetitive design. Several other cantus firmi are freely adapted to fit the superstructure, e.g. Mo 40, 51, 53.

How carefully poetic and musical structure are integrated in many such pieces is well demonstrated by the Marian motet Mo 4,56:

[^63]

The two statements of the tenor give rise to the particular musical and poetic articulation of the motetus, which is bridged by the triplum's balanced design. In addition, the two halves of the motet display a «strophic» musical rhyme by means of isomelic correspondences. Several motets model themselves on Serena virginum, inasmuch as the multiple statements of the tenor support a form which can best be described as «strophic variation». Mo 3,37 , which may be of peripheral origin, even separates all of its five «strophes» from one another by simultaneous rests. In a few cases isomelic correspondences are carried so far as to produce almost a true strophic design, e.g. $B a$ No. $85, M o$ Nos. 40 and 54 ; in the latter the copious motivic recurrences within the tenor produce corresponding recurrences in the upper voices. Even Mo 4,58, whose structure

$$
\begin{aligned}
& 5(8 \mathrm{~L})+4 \mathrm{~L}+2(8 \mathrm{~L}) \\
& 6(7 \mathrm{~L})+2(9 \mathrm{~L}) \\
& 2[5(2+4 \mathrm{~L})]
\end{aligned}
$$

imaginatively attempts to demonstrate 60 with 6 's, 7 's, and 8 's, causing phrases of the upper voices to lie athwart the beginning of the second statement of its tenor, nevertheless handles its counterpoint clearly in a manner designed to produce strophic variation ${ }^{232}$.

Much aggrieved at seeing such older types of polyphonic music as organum and conductus abandoned by modern composers, Jacobus Leodiensis lamented that they «quasi solis utuntur motetis et cantilenis» ${ }^{233}$. The commanding figure who evidently recognized the evolutionary tendencies and gave French music of the $14^{\text {th }}$ century its decisive orientation was Philippe de Vitry, one of the most significant men of his age ${ }^{234}$. The author of Les Règles de la Seconde Rhétorique reports that «il trouva la maniere des motets et des balades et des lais et des sim-

[^64]ples rondeaux». While of musical compositions by Philippe de Vitry only motets have survived, it has been assumed quite properly that in the field of chansons his innovation must have concerned the formulation of a new polyphonic style ${ }^{235}$.

Since the early days of the clausula, musica precise mensurata had been patterned music, with the ordines of the upper voices depending on the module presented by the ordered cantus firmus. The numerically unstructured polyphonic song, on the other hand, had traditionally, ever since the twelfth century, allotted the composed tune to the tenor; not only in the Notre-Dame conducti, but also in the polyphonic rondeaux by Adam de la Halle and Jehannot de l'Escurel with their conductus texture is the main melody barred from being apportioned to the top voice ${ }^{236}$. But the tendencies manifesting themselves in the disintegrating twovoiced motet and the dissolution of the modal system toward 1300 made it possible for the freely composed song to rise to the surface of the polyphonic complex, supported by a tenor, which is not shaped as a modular fundament (motet), but added as an accompaniment ${ }^{237}$. While there is no evidence allowing us to date the earliest ballades of Machaut before the fifth decade of the $14^{\text {th }}$ century, the polyphonic chanson must have been an established genre in the 1320's to evoke Jacobus's complaint.

Corollaries of this development are the re-Latinization of the motet and the increasing rarity of motets with chanson tenors. As it is now possible to set French lyric poems as songs accompanied by a flexible and commensurate tenor, the vernacular recedes from the motet, whose poetry turns away from its concern with amour courtois and deals with topics that had been more common in peripheral motets and conducti. Henceforth, chanson and motet go their separate ways, with the motet unequivocally committed to the dignity of its essential purpose. The proportion of motets with French texts, which is reduced by half in the eighth fascicle of Mo, when compared with the seventh, has dwindled to insignificance in Fauv. The proportion of French tenors in Fauv is half of that in the new corpus of $M o$. Of the motets that can reasonably be ascribed to Vitry none has a chanson tenor and only one has French texts ${ }^{238}$. Necessarily, the texts not only of the conducti but also of the motets inserted by Raoul Chaillou de Pestain in the Ro-

[^65]man de Fauvel belong to the sphere of the conductus, in which the admonitio had always played an important role ${ }^{239}$. With one exception, all Fauvel motets are polemical and political ${ }^{240}$. The same holds true for most of Vitry's works and a good many $14^{\text {th }}$-century motets, generally ${ }^{241}$.

In his approach to the musical composition of the motet Vitry established a definitive hierarchic concept of the voices that was already realized a century earlier in a piece like Ypocrite/Velut stelle/Et gaudebit. The prolation system not only imposed order and control over the Petronian heritage by establishing the minim as a precisely measured fractional semibreve, but with the retention of the $\mathrm{Pe}-$ tronian tradition of assigning the longest durational values to the tenor it vastly expanded the motet. Under these circumstances a rhythmic pattern encompassing an entire tenor statement becomes meaningless and unmanageable. On the other hand, Vitry apparently recognized the structural neutrality of the Petronian tenors, which merely lent unobtrusive support to a virtuoso triplum. If the tenor is to be a structural fundament, it must articulate and define. It was Vitry's achievement to combine a superstructure of two voices moving prominently in semibreves and minims with a slow tenor, to which the principle of patterning was again rigidly applied.

The reduction of the bewildering variety of motets flourishing at the turn of the century to one definitive type is the new «maniere des motets», invented by Vitry when he was barely more than 20 years old. His works attest the penetrating rationality of his accomplishment and the vivid imagination of his creative mind. Each composition is an integral entity possessing a specific structural and poetic individuality, which it retains, no matter how large a number of manuscripts might preserve it ${ }^{242}$. Contrafacta and other variant versions of motets are $1^{\text {th }}$-century phenomena. The possibility of combining two unrelated poems in the upper voices ceases to exist, since the selection of the tenor is no longer determined by arbitrary considerations of contrapuntal convenience, but is governed by the need of having its text correspond like a motto to the poetic conceit of the upper voices. This procedure is first reported by Egidius de Murino: «Primo accipe tenorem ... et debent verba concordare de materia de qua facere motetum.» ${ }^{243}$ The practice, which originated around the turn of the century ${ }^{244}$, might be called reverse textual troping, since the relevance of the voices is not liturgically, but poetically motivated. The primacy of the poetic impulse (but not of the poetic composition) is a facet the motet shares with the accompanied song.

[^66]It is clear that the intrinsically necessary presence of a cantus firmus, which had always caused the motet tenor to be regarded as the «dignior pars» ${ }^{245}$, in no case automatically implies liturgical function. The original tropic nature of the motet was a fleeting phenomenon, whose inevitability was eliminated when clausula and motet were recognized as entities divorced from the chant that furnished a suitable series of notes for the tenor ${ }^{246}$. Even references to the Virgin in French (or Latin) motets ${ }^{247}$ are no evidence of liturgical purpose. Undoubtedly Guillaume Durand's (d. 1334) remark that properly «cantus indevoti et inordinati motetorum et similium non fierent in ecclesia» ${ }^{248}$ indicates not his desire for the elimination of the motet as a species, but for its relegation to its appropriate sphere. Certainly motets with suitable texts must have been performed in church; but the primary raison d'être of the motet was surely more than ever to function as the most sublime product of ars musica ${ }^{249}$, that addressed itself to the «litteratis et illis qui subtilitates artium sunt querentes» ${ }^{250}$. Having originated as clerical chamber music it became chiefly university music, as it was produced in the $14^{\text {th }}$ century by and for «valentes cantores et layci sapientes» ${ }^{251}$. The intrinsic necessity of its existence is self-evident, because, inspirited by divine laws, it is that species of musica instrumentalis which optimally fulfills man's obligation to fashion approximate audible images of musica mundana. After the earliest stage, represented by manuscript $F$, relatively few motets deal with religious subjects, and no report substantiates the view that the medieval motet was «deeply ... rooted in the religious ceremonies of the time» ${ }^{252}$. Both the texts and the appearance of the vernacular in the early motet show that non-liturgical spheres had appropriated the achievements of ars musica. (Even the two-voiced French motets of the $1^{\text {th }}$ century are usually products of high style, though admittedly they were often subject to performances that destroyed the integrity of their structures.) Vitry's nearly exclusive use of Latin does not betoken liturgical propriety; the motet now «fügt sich weder der Liturgie noch einer gesellschaftlichen Ordnung ein, bewahrt auch dort, wo sie als Festmusik benutzt wird, ihren ästhetischen Eigenwert» ${ }^{253}$.
As in the $13^{\text {th }}$ century, it is the interrelation of the phrase structure of the up-
${ }^{265}$ Anonymus VII, De musica libellus, CS I, 379 b.
${ }^{366}$ «Très tot après qu'il s'est séparé du tronc et qu'il a pris son existence distincte, le motet cesse d'appartenir à l'église» (Rokseth, Polyphonies IV, 66).
${ }^{267}$ G. Reaney, «The Isorhythmic Motet and Its Social Background», Bericht über den Internationalen Musikwissenschaftlichen Kongreß Kassel 1962, Kassel etc. 1963, 26.
${ }^{348}$ Quoted in Pierre Aubry, Cent Motets du XIIIe siècle III, Paris 1908, 37; cf. etiam Rokseth, op. cit., 69, 221.
${ }^{14}$ See Hans H. Eggebrecht, «Ars musica», Die Sammlung XII (1957), 306-322.
${ }^{250}$ Johannes de Grocheo (Wolf, Musiklehre, 106; Rohloff, Musiktraktat, 56).
${ }^{261}$ Jacobus Leodiensis, Speculum musicae, CS II, 342a; see also the cogent summary in Kuhlmann, Motetten I, 92/93.
${ }^{351}$ Reaney, «Isorhythmic Motet», 27.
${ }^{251}$ H. Besseler, «Ars Nova», MGG I (1949-1951), 714.
per voices with the rhythmic character of the tenor talea ${ }^{264}$ that gives each motet its particular form ${ }^{255}$. (The tenor rhythms of only two of Vitry's three earliest motets are still modal, while the first of the three [In nova fert/Garrit gallus/ Neuma] employs an intricate pattern, which still bears a family resemblance to modal rhythms.) The phrase structures of all voices of a given motet are numerically related. While the modal pattern of the early motet No. $3^{256}$ takes up a total of six longae, the taleae are determined by the design of the upper voices ${ }^{257}$ :

$$
\begin{aligned}
& 9 \mathrm{~L}+2(12+12 \mathrm{~L})+12 \mathrm{~L}+9 \mathrm{~L} \\
& 3 \mathrm{~L}+12 \mathrm{~L}+2(11+13 \mathrm{~L})+15 \mathrm{~L} \\
& 6 \mathrm{~L})+3[4(6 \mathrm{~L})]
\end{aligned}
$$

The fact that the tenor consists of two colores is of no structural significance. Only in the motetus is the versification congruous with the musical structure ${ }^{258}$.

The variety of individual Gestalten embodied in Vitry's works is truly astonishing. No. 5, presumably his earliest extant composition, is one of the most imaginative musical works of the Middle Ages. The normative factor is the talea, which is in effect a rhythmic palindrome:


Since the rest is necessarily omitted at the end of the piece, the entire tenor, consisting of six taleae, is likewise a palindrome, whose center is the rest fol-
${ }^{254}$ Originally this was a rhetorical term that concerned poetic form; see Fritz Reckow, «Taille», MGG XIII (1966), 57 ss. The first theorist to discuss the terms «color» and «talea» in connection with the $1^{\text {th }}$-century motet was Johannes de Muris (H. Besseler, «Johannes de Muris», MGG VII [1958], 113).
${ }^{25 s}$ The ascription to Vitry of two motets in Fauv ( $O$ vos pastores / Orbis orbatus / Fur non venit and Heu fortuna / Aman novi / Heu me ) rests on considerations of poetic subject matter as well as on Vitry's citation of one of these pieces in his Ars Nova (Schrade, Polyphonic Music I, Commentary, 30-33). Yet, these attributions force us to place an advanced composition (In nova fert / Garrit gallus / Neuma) anterior to the two motets in question, even though they lack a coherent phrase structure and generally exhibit a conservative facture in some ways reminiscent of Petronian style. Since the attribution to Vitry of Quid scire proderit must be regarded as dubious «because the composer never used a comparable structure in any of his motets» (ib., 38), Vitry's authorship of the other two motets must likewise be regarded as extremely doubtful. Moreover, the fact that a number of his motets are cited in the Ars Nova «can hardly be considered as evidence that he quoted his own works exclusively" (G. Reaney, «The «Ars Nova» of Philippe de Vitry», MD X [1956], 9).
${ }_{256}$ Numeration of Leo Schrade, Polyphonic Music I.
${ }^{257}$ Rests dividing phrases from one another as a rule belong structurally to the preceding phrase and are therefore not indicated separately in the summary formulas. - Several of Machaut's motets are based on tenor taleae with internally repetitive rhythmic patterns, e.g. Nos. 1, 8,10 (though isorhythmic hockets in the upper voices turn the internal repetitions into taleae in the diminution section), 12, and 15. The analytical layout of Nos. 12 and 15 in Ludwig's edition does not take their phrase structure into account. This was observed by G. Reichert («Das Verhältnis zwischen musikalischer und textlicher Struktur in den Motetten Machauts», AfMw XIII [1956], 202), who recognized the form of these motets on the basis of the poetic structure, but failed to identify the subdivisions of the musical form, with which the poetry is congruous.
${ }^{268}$ Ovidian citations in both voices (Reichert, ib. 213, n. 2) cause a change from rhymed rhythmic poetry to metrical versification.
lowing the third talea. All three voices demonstrate the motet's modular number (25) and the palindrome concept:

$$
\begin{aligned}
& 16 \mathrm{~B}+(17+8+17+8+17+8+17+8+17 \mathrm{~B})+14 \mathrm{~B} \\
& 15 \mathrm{~B}+(17+8+17+8+17+8+17+8+17 \mathrm{~B})+15 \mathrm{~B} \\
& 5(12+13 \mathrm{~B})+(12+10 \mathrm{~B})
\end{aligned}
$$

The two types of phrase of the upper voices thus nearly stand in a $2: 1$ relationship ${ }^{259}$. The tenor contributes to the palindromic structure with the symmetrical arrangement of modus perfectus and modus imperfectus. The irregularity of the enframing phrases of the triplum is accounted for by the necessity of avoiding coincident rests in the two upper voices. This feature, which becomes an irrefragable principle of motet composition, was already observable in the «isoperiodic» English motets of the early $14^{\text {th }}$ century; in fact, at least one specimen (WF No. $7^{1)}$ goes back to the last quarter of the $13^{\text {th }}$ century.

While poetic and musical structures are not isomorphic in No. 5, motet composers evidently were less and less in sympathy with the seemingly haphazard attitude implied by Egidius's statement that «aliquando est necesse extendere multas notas super pauca verba [et aliquando multa verba] super pauca tempora> ${ }^{260}$, which is clear evidence for the primacy of the musical structure. To be sure, a number of motets composed in the first half of the $14^{\text {th }}$ century evince a rather cavalier attitude on the part of the composer in fitting the poetry to the music. And prosody is of no more concern than it was in the days of Petrus de Cruce. But several compositions show great care in the structural co-ordination of music and poetry ${ }^{261}$. There are also works in which the disposition of the phrases reshapes the form of a poem, as for instance in the triplum of Vitry's motet No. 12.

No. 9, whose poetic structure is quite closely integrated with the musical form, is one of the earliest pieces with a second section in diminution. Though there are cases of modal tenor diminution in the Continental motet repertoire of the $13^{\text {th }}$ century, more recent antecedents can be found in certain English composi-

[^67]tions, such as $W F$ No. 36, the motet De sancta Katerina, and the ONC motet, also on St. Catherine, discussed by Harrison ${ }^{262}$. In contrast to Machaut, whose diminution sections are, with one exception, regularly proportioned, Vitry often still proceeds more fancifully, not unlike the composers of the English motets. An unusual case is No. 6 , whose tenor is laid out $4(36+24 \mathrm{SB})+4(9+12 \mathrm{SB})$; hence, the ingredients are proportioned 12:8 and 3:4263.

Another motet with intricately irregular diminution (No. 7) is also notable for having a contratenor, an innovation evidently adopted by Vitry in the 1330's and increasingly favored by composers of the later $14^{\text {th }}$ and early $15^{\text {th }}$ centuries. Composition for four voices, abandoned on the Continent before the middle of the $13^{\text {th }}$ century, had been a continuing English specialty at least since the days of the Summer canon (ca. 1260). Even manuscripts revealing traces of Continental influence, such as London, Westminster Abbey 33327, favor the rich texture of four voices, which begin to appear separated into two pairs by the turn of the century ${ }^{264}$. As in the ONC motet mentioned earlier ${ }^{265}$, the two lower voices of Vitry's No. 12 are optionally contracted into a solus tenor ${ }^{268}$. While the procedure often produces a harmonically more progressive fundament ${ }^{267}$, it seems doubtful whether a composer such as Vitry approved of this «debasement» of the tenor.

As in the «isoperiodic» English motets of the early 14 th century, in all ars-nova motets discussed so far the phrases of the upper voices are laid out so as to overlap the tenor taleae. As long as tenor patterns were relatively short, there was no other possibility; to analyze such motets (e.g. Vitry's No. 9) solely on the basis of the tenor often yields no satisfactory results. In the 1330's, however, Vitry altered his compositional procedure in a significant way, producing at least two motets

[^68]264 WF Nos. $95,53,67$, as well as the manuscripts $O N C$, Oxf Hatton 81, and Oxf E Museo 7.
${ }_{205}$ Cf. supra, 543.
${ }^{206}$ The second tenor, marked «vacat [not «vivat»] iste* in the Ivrea manuscript, is void. The same remark is clearly written on fol. 12, where it concerns not a defective voice, as in No. 7 , but a part that was written in the wrong place.

167 See Shelley Davis, «The Solus Tenor in the $1^{\text {th }}$ and $15^{\text {th }}$ Centuries», AMl XXXIX (1967), 45-50.
(Nos. 12 and 14) that can be considered as models for Machaut. As before, the phraseology of all the voices is out of phase, but only slightly; while the phrases overlap to guarantee the unbroken continuity of the fabric, their nearly parallel arrangement makes the motet into a large-scale strophic musical form, with which more often than not the poetry is made to conform. (The closest antecedents of large-scale sectional motet design are English, i.e. WF No. 36, the first three motets in Oxf Hatton 81, and the motet De sancta Katerina.) Thus, the duplum of No. 14, which contains eight hexameters, and the triplum, consisting of nine decasyllabic couplets, have the following structure (exclusive of the terminal hocket):

```
14B+6(12B)+10B
15B+6(12B)+9B
8(12B)
```

The declamation of the triplum slows down significantly after the first phrase, which contains two couplets.

It is no surprise that these two compositions are also the first in which Vitry underscored their phrase construction with isolated isorhythmic correspondences in the upper voices ${ }^{268}$. These occur periodically around phrase endings and in hocket passages, which now become staple ingredients ${ }^{888}$, especially in diminution sections, and often even affect the rhythms of the tenor. The compositions have grown so large that isorhythm, whose distinctive features were predicated on the destruction of modal rhythm, serves to clarify and articulate the strophic structure; clearly, the isorhythmic inviolability of rests indicates the ancillary origin of the device, which was already demonstrated by some of the English motets of the early $14^{\text {th }}$ century. While two Continental antecedents exist - one highly accomplished (Mo 8,311) ${ }^{270}$, the other ( $M o 7,283$ ) a mo re mechanical peripheral piece - both still dispose their tenor in short rhythms so that color and talea coincide ${ }^{\mathbf{8 7 1}}$.

The accumulation of evidence makes it difficult to escape the impression that English musical practices had considerable influence on Continental composers not only around 1200 and $1400^{272}$, but also ca. 1300 . Those were times when

[^69]musical style in France had reached stages of great refinement and sophistication. In each case English music apparently contributed to a vital reorientation. At least the later two of those periods seem to have been preceded by times of strong French influences on England ${ }^{273}$, when Continental practices were absorbed and reinterpreted.

To our knowledge the most prominent practitioner of the strophic motet was Guillaume de Machaut, though Gasse de la Bigne wrote that «Philippe de Vitry eut nom, Qui mieux seut motets que nul hom». ${ }^{274}$ As a genre, the motet differed from the polyphonic chanson not only in conception and structure, but also in style. The two upper voices have largely given up the sharp differentiation they possessed in the Petronian motet. While the triplum poems are always longer than those of the moteti ${ }^{275}$ and therefore, in contrast to most of the motetus poems, have strophic structure ${ }^{278}$, the rhythmic character of both voices, which have lost all modal constraints is quite often nearly the same. As a result, the declamation, whose concern with prosody is anything but vital, is rapid in the triplum, but slower and, in contrast to $13^{\text {th }}$-century tradition, fairly melismatic in the motetus, though short melismas also occur in most tripla. The melodic design of the upper voices clearly shows that each phrase is a separate component, which requires no linking to its predecessor by such means as motivic relationships, sequences, or contrast ${ }^{277}$. Since the composition is not the product of free melodic invention, a motet sounds stiffer and more formal than a chanson, not only because of its massive fundament, but because the melodic design of the upper voices is more restricted; even rhythmically it is more conservative ${ }^{278}$. Rooted in the pitches of the cantus firmus, motetus and triplum are pre-eminently concerned with the successive harmonious unfolding of numerical Gestalten.

It is important to stress the fact that, like the early troped clausulae, motets are not poetry set to music. In a few of his analyses Georg Reichert has misread structural intent by attributing the design to the form of the poetry. Curiously, he even adduces the principle of staggered phrasing («Phasendifferenz») to poetic design ${ }^{279}$. Yet, in a number of Machaut's motets the poetic structure either conflicts with the musical structure (Nos. 2,3,5) or evinces revealing adjustments ${ }^{280}$,

[^70]and not even half of Machaut's motets with diminution sections exhibit significant parallelism between poetic and musical form in the second section ${ }^{281}$. Motet texts were «written either simultaneously with the music, or afterwards» ${ }^{282}$.

It has been said repeatedly that the isorhythmic motet is an arcane intellectual construct that resists aural perception. Yet already in 1952 one observer pointed out that even apart from isorhythmic hocket passages the listener has a sense of more or less precise rhythmic recurrence. «He gradually becomes aware that phrases (and rests) of the same length occur at regular intervals.» ${ }^{283}$ It is true that the apprehension of $14^{\text {th }}$-century motets may at first seem a forbidding task, since they are of much broader dimensions than those of the ars antiqua. «A single isorhythmic period [i.e. talea] is often as long as many an entire thirteenth century motet.» ${ }^{284}$ But motets of the $14^{\text {th }}$ century are in the truest sense strophic variations, and the listener's sense of recurrence, though differently activated, is hardly less keen than in the case of Orfeo's aria in the third act of Monteverdi's first opera ${ }^{285}$. Aural perception of the proportioned relationships within a motet is not essentially more problematic than visual perception of the proportioned relationships of the structural members in architecture. Isorhythmic passages are rhythmically recurring ornaments that emphasize the structure.

Apart from the fact that, in contrast to Vitry, color and talea do not coincide in seven of Machaut's motets ${ }^{288}$, he did not change the concept of the motet to a significant degree in most of his works ${ }^{287}$. In fact, his three motets on secular tenors (one color each) may be considered as atavisms, though each deals in an individualstriking proof of the normative power of phrase structure, which shows that the work cannot be considered «unipartite» (Günther, «14th-Century Motet», 30):
$[(12+6 \mathrm{~B})+2(9+6 \mathrm{~B})]+[(11+7 \mathrm{~B})+(8+7 \mathrm{~B})+(8+10 \mathrm{~B})]$
$[(13+4 B)+2(11+4 B)]+[(13+3 B)+2(12+3 B)+6 B]$
$[3(5+10 B)+5 B]+[3(4+11 B)+4 B]$.
To constitute 15, all numbers from 3 to 12 are employed. (Because of the structural principle of staggered phrasing, sometimes only the second of three taleae will be «typical", as for instance in the second section of the triplum of Machaut's No. 6 or in the motetus * of Mo 8,311; see $\mathbf{n} .210$ above.)
${ }^{880}$ Reichert, op. cit., passim.
281 Ib ., 205 s.
292 Williams, Guillaume de Machaut, 177; cf. also Reichert, op. cit., 209.
${ }^{\text {ass }}$ Williams, op. cit., 159.
$284 \mathrm{Ib} ., 144$.
${ }_{285}$ The case had been similarly stated by Miss Williams (op. cit., 155). Eggebrecht has also indicated his doubts about «die Legende von der Isorhythmie»; see his article «Machauts Motette Nr. 9 ", $A f M \omega$ XIX/XX (1962/1963), 283 ss.
${ }^{288}$ Conflict of color and talea occurs in only one of Vitry's motets (No. 3). - Ludwig unnecessarily takes the color into account as a structural element in his layout of Machaut's motets $9,14,17$, and 18. Moreover, in the case of No. 9 the introitus is two breves longer than Ludwig indicates; there seems to be no need to consider the structure of the motet irregular.
${ }^{187}$ Three tenor identifications can be added to those known so far: No. 14: the end of the antiphon Anima mea liquefacta est; No. 7: adapted from the antiphon Rex autem David (Antiphonale Sarisburiense, ed. Walter H. Frere, London 1905-1921, 297); No. 5: the cantus
ly ingenious way with the obligations of structural entelechy. The tenor of No. 11, which consists of six phrases, has obviously occasioned the same subdivision for the two upper voices. While their basic rhythm is trochaic, before the end of the second, fourth, and sixth phrases the motetus changes to iambic rhythm, with the triplum hocketing against it. These isolated instances of isorhythm therefore articulate the motet into three groups of two phrases, superseding the form of the song ( $\left.a b_{1}, c, c, d, b_{2}, a b_{1}\right)$ that serves as tenor. The structure of No. 20 , which has a rondeau tenor, is as follows:
$15 B+17 B+17 B$
$17 B+17 B+15 B$
$(7+5 \mathrm{~B})+7 \mathrm{~B}+7 \mathrm{~B}+(7+5 \mathrm{~B})+(7+4 \mathrm{~B})$
The upper voices reflect the phrase order of the tenor, since 10 (like 100,1000 , etc.) is a return to unity. Isorhythmic hocket passages subdivide the motet into $7 \mathrm{~B}+2(17 \mathrm{~B})+8 \mathrm{~B}$. The isorhythm occurs in both motets over tenor passages that do not correspond rhythmically. The tenor of No. 16 totals 150 breves, which the motetus and triplum subdivide into phrase units of $(15+15 \mathrm{~B})$ and 25 B , respectively. In other words, the tenor is treated as one long talea, which fact explains the absence of isorhythm. The irregularity of the third phrase of the triplum (26B), which the last phrase compensates (24B), is due to the need to prevent coincidence of phrase endings in the middle of the piece. In spite of their secular tenors all three compositions turn out to be rigorously structured motets.

While the versification of Vitry's motets restricts itself to hexameters, couplets, and quatrains, a further stage in the evolution of the motet is represented by No. 73 of the Ivrea manuscript. Its complex poetic structure was apparently designed specifically for this motet:

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\((12+13 B)+2(14+13 B)+(14+15 B)\)
\(29 \mathrm{~B}+2(27 \mathrm{~B})+25 \mathrm{~B}\)
4 (27B)
\(4\left[(a+2 b+3 a)+\left(b_{8}+2 b+a_{8}\right)\right]\)
\(3(a+2 b+2 a+2 b+a)+\left(a+2 b+2 a+b+a_{8}\right)\)
```

(Unless otherwise indicated, the verses are tetrasyllabic.) This tightly ordered construct is further reinforced by panisorhythm, a schematic procedure that was not practiced by Vitry, is still rare in Machaut's motets and in those contained in Ivrea, but increased in importance around the middle of the century. It is significant that the trend toward panisorhythm goes hand in hand with a tendency to forgo the traditional structure of the upper voices that divides the talea into component phrases. There is no question that the formal changes experienced by the motet in the second half of the century result from the monumentalism that be-
gins to affect it. Increasingly, motets appear in which one or both of the upper voices are not subdivided at all, e.g. Machaut No. 21, Ivrea Nos. 31, 32, 41, 73. Invariably, such motets are panisorhythmic or nearly so. The level of articulation has passed from the component phrases of the taleae to the monolithic taleae themselves; usually both the structure of the poetry and its declamation are rather closely molded to the strophic isorhythm. What used to be ornamental emphasis (isorhythm in the upper voices) has now become of central importance, and with the elimination of the structural subdivisions the elements of form have become vast. In the panisorhythmic motets of the late $14^{\text {th }}$ century the phrase is no longer a formal component.

Numerical significance was restored to the motet on a larger plane than before through the extended application of diminution, a device that had been optional since Vitry's day. One of the earliest specimens of the type of composition that might be called «mensuration motet» is No. 14 of Chantilly, musée condé, ms. 564 (olim 1047) ${ }^{288}$, whose concordance in Ivrea makes it the most progressive motet in that source. It may have been composed in the late 1360 's ${ }^{288}$. Its eight taleae are divided into four pairs, each of which apportions a different mensuration to the two lower voices. Necessarily, the isorhythmic shaping of the upper voices applies only to the two halves of each pair, so that the piece actually constitutes a double strophic variation form; the upper voices form strophic subdivisions of the «strophic» sections established by the lower voices ${ }^{290}$. The lengths of the four sections yield the proportion 6:4:3:2. Each section is based on one color of the tenor (and contratenor); the overlapping of color and talea structure that occurs in one third of Machaut's motets is given up for the sake of clearer definition of the expanding form. Another striking example is Chantilly No. 12, whose motetus text informs us that the tenor «bis sub emiolii normis recitatur», i.e. 9:6:4. In most compositions of this type the structure of the poetry with its growing tendency toward arcane references and recondite imagery is rather carefully integrated with the musical design.

A good many mensuration motets of increasing complexity can be found in the sources of the late $14^{\text {th }}$ and early $15^{\text {th }}$ centuries ${ }^{291}$. Particularly the English composers of the time cultivated the form with great skill, constructing motets governed by a variety of proportions. Especially intriguing is the motet preserved on

[^71]fol. 14 of $L o F$. The change from modus to tempus reduces the ternary and binary notes of the tenor respectively to one third and one half of their original value. Since there are 36 ternary and 12 binary values in the first section, the two sections form the proportion 8:3. The design of the contratenor necessitated extraordinary adjustments.


The ultimate degree of complexity was achieved by some French composers of the early $15^{\text {th }}$ century. The rhythm of the four tenor sections of Nicolas Grenon's Ave virtus/Prophetarum/Infelix ${ }^{292}$ is governed successively by modus maior, modus minor, tempus, and prolatio. The arrangement of the subordinate «prolacions» yields for the length of the four colores the proportion $8: 6: 2: 1$. But since the last two sections contain two colores (and two taleae) each, the four sections together represent the tetraktys ( $4: 3: 2: 1$ ).

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Triplum, Motetus,
Contratenor: \(2(144 \mathrm{M})+2(108 \mathrm{M})+2(72 \mathrm{M})+2(36 \mathrm{M})+24 \mathrm{M}(\operatorname{coda})\)
Tenor: \(288 \mathrm{M}+216 \mathrm{M}+2(72 \mathrm{M})+2(36 \mathrm{M})+2\)
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The two poems respectively contain 40 and 32 decasyllabic verses, which are distributed as follows:

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Triplum: \(2(8 v)+2(5 v)+2(4 v)+2(3 v)\)
Motetus: \(2(5 \mathrm{v})+2(5 \mathrm{v})+2(4 \mathrm{v})+2(2 \mathrm{v})\)
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Johannes Brassart's Romanorum rex inclite (1439) ${ }^{293}$ is similarly constructed (three colores with four taleae each):

| Triplum, Motetus, Contratenor:  <br> $2(90 \mathrm{SB})$ $+2(45 \mathrm{SB})$ <br> Tenor:  <br> $(72+54+36+18 \mathrm{SB})+(9+18+27+36 \mathrm{SB})+4(18 \mathrm{SB})$  | $=+18 \mathrm{SB}$ (coda) |
| :--- | :--- |

Other isorhythmic motets are constructed over complex tenors, involving retrograde motion ${ }^{294}$ or retrograde motion combined with complicated rhythmic de-

202 Charles-J.-E. van den Borren, ed., Polyphonia Sacra: A Continental Miscellany of the Fifteenth Century, Burnham 1932, No. 30.
${ }^{209}$ Published by Keith E. Mixter in Musik alter Meister XIII, Graz 1960, 29.
${ }^{294}$ O flos / Sacris pignoribus by Loqueville, published by G. Reaney in Early FifteenthCentury Music, Roma 1966, 21 (CMM XI. 3), and Chantilly No. 11.
sign ${ }^{295}$. Perhaps the most astonishing creation is Albert Billart's Salve virgo/Vita via/Salve regina ${ }^{296}$. The taleae are arranged in a rondo-like fashion. Moreover, two different sets of proportions govern the two pairs of voices; their coordination caused some irregularities.

(Greek letters: Isorhythmic sections of the upper voices; capital letters: colores; Roman numerals: taleae; $\mathbf{a}$ : original values; $\mathbf{b}$ and c : diminutions).
What is particularly striking is not only the fact that the upper voices of Billart's motet exhibit the more smoothly balanced design, but that in all of these pieces the only truly isorhythmic construction prevails in the tripla and moteti, though in Billart's composition one pair af taleae is torn asunder by an intervening pair. The main emphasis is no longer on isorhythmic pairing, but on variety of mensuration ${ }^{297}$.

In the end, there appeared mensuration motets without isorhythm. Three compositions by Dufay represent this final structural type of the medieval motet, which is related to the Burgundian cantus-firmus mass. Nos. 11, 12, and 13 of his «isorhythmic» motets ${ }^{298}$ respectively present the following proportions : 6:4: $2: 3 ; 12: 4: 2: 3 ; 6: 3: 4: 2: 6: 3$ (exclusive of the introitus) ${ }^{299}$. The two cantus firmi, which together underlie the extraordinary No. 13 , consist of six colores, while the contratenor contains three, whose mensuration yields a ternary form (3:2:3). The six sections of the two tenors are grouped in pairs, with each even-numbered member the diminution of its antecedent. Finally, there is one isolated motet (No. 14) in the Cypriot repertory edited by Richard Hoppin (Torino, Biblioteca Nazionale Ms. J. II. $9[T u B])^{300}$, whose sections are laid out in an arch form:3:2: $1: 2: 3^{301}$, an unusual accomplishment in an otherwise rather provincial motet collection.

[^72]As in the case of the symphony of the early $20^{\text {th }}$ century, the huge proportions to which the isorhythmic motet of English, Burgundian, and Franco-Flemish composers of the early $15^{\text {th }}$ century had grown were indications of its imminent demise as a species. Both in size and in sound it tended to become unwieldy. Its enormous structural members were based on large areas of unvarying sonority established by the long durational values of the tenor (and contratenor). Particularly the motets of the Chantilly repertoire are bedecked with richly ornamental upper parts of manneristic rhythmic intricacy.

Moreover, the motet assimilated two features that had been essentially foreign to it since its birth, namely isomelism and imitation. The latter had been known to motet composers of the ars antiqua, who would often correlate identical text phrases occurring successively in the two upper voices by associating them with the same pitches, e.g. Mo 5,104 ${ }^{302}$, Mo 8,325, etc. But this is not so much a matter of imitation as of musico-textual identity, reflecting the same melos principle that made a triplum into a distinct entity, once it had been separated from the duplum by a text of its own. True imitation was so uncommon as to be negligible ${ }^{303}$. A case in point is $M o 5,105$, which originated in $W_{2}$ as a motet for two voices. The added triplum, with which the motet occurs in Mo, contains copious cross-references to the motetus poem, which caused it to be equipped with appropriate musical correspondences, despite the fact that they make wretched counterpoint. While surely even in the $13^{\text {th }}$ century upper voices with totally unrelated texts cannot have been viewed as a compositional ideal, Mme Rokseth is mistaken when she observes of Mo 105 that it demonstrates «que le motet comme poème a pour essence d'être destiné à la musique polyphonique» ${ }^{304}$. In the $14^{\text {th }}$ century, too, imitation in the upper voices is of no significance; generally it occurs only in the introitus that sometimes precede the motet proper and have no cantus firmus in the tenor ${ }^{305}$. The reason for the absence of imitation from the body of the motet is surely less the contrapuntal difficulties presented by the cantus prius factus than the fact that devices of melodic integration are essentially foreign to structures based, ever since the appearance of the clausula, on the disposition of temporal units (rhythm and phrases).

These circumstances also explain the rarity of isomelism in the motets of Vitry's and Machaut's time. Since there were certainly more contrapuntal opportunities for isomelic correspondences than $14^{\text {th }}$ - century motet composers cared to ex-

[^73]ploit, isomelism, like imitation, must be recognized as inherently extrinsic to the medieval motet ${ }^{306}$.

The increasing importance of both devices around 1400 is symptomatic of a profound shift from the numerical co-ordination of heterogeneous, hierarchically ordered durational components, in which melodic considerations are of no structural importance, to the creation of a homogeneous contrapuntal fabric from one congenial set of melodic cells. The many significant changes in style and technique occurring in the motets composed at this time have been attributed largely to certain Italian preferences ${ }^{307}$, which were transformed by such Northern composers resident in Italy as Johannes Ciconia and Dufay. Prior to the early 15th century the Italian medieval motet production had been negligible ${ }^{308}$. The extant pieces number less than half a dozen and demonstrate a fundamental distrust of the species ${ }^{309}$. Like the $13^{\text {th }}$-century English composers the Italians shied away from the cantus firmus and evidently tended to mold their motets into non-isorhythmic secular forms, such as madrigals. All of Ciconia's dozen motets have tenors with bass-like support quality, rather than Gregorian cantus firmi ${ }^{310}$; two are isorhythmic, each containing two enormous taleae (Ut te/Ingens and Albane misse) Albane doctor $)^{311}$, and two are mensuration motets. All but two of the pieces are tonally unified and their melodic style has a flexibility relating them to the other sphere of polyphony, that was not structurally governed by the tenor. Their clear sectional articulation is produced by various means such as isomelic endings of taleae ${ }^{312}$, structurally placed melismas, and cadential arrest of motion preceded by climactic acceleration. The type of duet of the upper voices that in a good many Continental motets occurs in the optional introitus, is frequently incorporated not

[^74]only by Ciconia, but also by Dunstable and other English composers into the structure itself so that in many such motets each talea begins with an airy duet of the unsupported upper voices.

An interesting mixture of French and Italian traditions produced the motets of the Cypriot collection in TuB. Though only three of the 41 compositions have a cantus firmus, most of them are isorhythmic; as many as 29 are panisorhyth$\mathrm{mic}^{313}$. To counteract the pervasive neutrality that would be produced by the combination of continuity and total rhythmic control, the ends of the taleae are articulated with special rhythmic devices, such as overlapping rhythmic imitation, hockets, or acceleration; sometimes the lower voices also get caught up in the climactic activity ${ }^{314}$ before in not too subtle a manner everything comes to a standstill ${ }^{315}$.

Of Ciconia's motets that are not organized by isorhythm or diminution only one is bitextual. All his other compositions are monotextual ${ }^{316}$. Evidently the composers active in Northern Italy were the first to transfer the technique of imitation from the monotextual duets, where it was at home, to the motet ${ }^{317}$. The two upper voices, which had already occupied the same range, often in the treble, in a good many French motets of the $14^{\text {th }}$ century, now were assimilated by melodic cross-references, by similar rhythmic facture, and by declamation, since monotextual motets were now written more frequently and the poems of a polytextual composition were usually of the same length and often of similar versification.

All of these progressive features can be found in one or another of Dufay's 14 «motetti isorhythmici dicti», as Guillaume de Van put it in his edition ${ }^{318}$. While for three of them no Gregorian cantus firmus has been identified, it is certainly true that in these 14 works ${ }^{319}$, composed 100 years after Vitry and some 200 years after Perotinus, Dufay achieved one last magnificent synthesis of the traditions of

[^75]numerically constructed cantus-firmus polyphony with the new forces that hastened its decline. Probably the most astonishingly masterful, almost overripe pieces are those that already dispense with talea construction, especially Nos. $11{ }^{320}$ and 13; the latter excels not only on account of its rich texture and extraordinarily balanced design, but also because of the intricacy of its isomelic technique ${ }^{321}$.

The quantitative decrease of motets in the sources preserving the repertoire of the turn of the century is compensated by an increase in secular polyphony and functional discant settings of liturgical cantus firmi. The latter category had been cultivated in England throughout the $14^{\text {th }}$ century ${ }^{322}$. But, in line with the total disregard of the secular motet by English composers of the $1^{\text {th }}$ and 14 th centuries, the motets by Dunstable and his English contemporaries were also composed as elaborations of the liturgy and were legitimated by pertinent cantus firmi. The same ecclesiastical purpose dignifies most Continental motets; the great majority of such works written by the French and Cypriot composers active in the early years of the $15^{\text {th }}$ century have sacred texts. The earlier French custom of composing Latin motets for ceremonial or dedicatory purposes had been adopted in Northern Italy, but was clearly beginning to recede. While some of Dufay's motets also belong to this category, most of them are sacred pièces de circonstance, hallowed by relevant liturgical fundaments that the Middle Ages knew as divinely inspired, sacrosanct and eternally valid ${ }^{323}$.
Ex. 42 The following identifications should be added to Example 42: Appendix. See note 308 above.

${ }^{820}$ Cf. Besseler's discussion in his «Erläuterung zu einer Vorführuag ausgewählter Denkmäler der Musik des späten Mittelalters», Bericht über die Freiburger Tagung für deutsche Orgelkurst 1926, Augsburg 1926, 144-146.
${ }^{891}$ Cf. S. Brown, Jr., «New Evidence of Isomelic Design in Dufay's Isorhythmic Motets», JAMS X (1957), 10/11.

332 Cf. E. Sanders, «Cantilena and Discant in 14th-Century England», MD XIX (1965), 23-50.
${ }^{388}$ Cf. Rolf Dammann, «Die Florentiner Domweihmotette Dufays (1436)», in ; Wolfgang Braunfels, Der Dom won Florenz, Lausanne, Freiburg i. Br. 1964, 73-85.



CORRIGENDA
[1967]

| p. 504, 1. 6: Instead of 'NBa' read: | \|d.d.d. J Y | |
| :---: | :---: |
| p. 504, L. 7: Instead of 'NBb' read: | 1d.d.d. . 1 |
| p. 505, 1. 1: Instead of 'NBc' read: | (\|d.d.d.x.ld.d.J.d) |
| p. 505, 1. 4: Instead of 'NBd' read: | (ld.d.s.ld.d.J.s.l) |
| p. 505, 1. 6: Instead of 'NBe' read: | C\|d.S.| d. J. d. S.| |
| p. 505, 1. 6: Instead of 'NBF' read: | \|d. د.|d.J.d.J.S.J.|| |
| p. 513,1. 5: Instead of 'NBg' read: | (1d.d.d.J.Id.d.s.l) |
| p. 529, 1. 7: Instead of 'NBh' read: | $\|d . d . d J d y\|$ |
| p. 529, 1. 7: Instead of 'NBi' read: | 1dJd.d.d>\| |
| p. 529, 1. 7: Instead of 'NBj' read: | Id.d.J.\|d.d.d.J.| |
| p. 529, 1. 9: Instead of 'NBk' read: | \|d.d.d.dv| |
| p. 529, 1. 10: Instead of 'NBI' read: | Id.dfd.J. |
| p. 529, 1. 11: Instead of 'NBm' read: | 1J.d.d. .. 1 |
| p. 529, 1. 11: Instead of 'NBn' read: | 1dd |
| p. 529, 1. 11 : Instead of 'NBo' read: | 1d.d.d.s.1 |

# THE MEDIEVAL HOCKET IN PRACTICE AND THEORY 

ONE of the many significant stylistic changes brought about by Perotinus in the emergent art of measured polyphony was his cultivation of more spacious and "measured" rhythms than the durational values prevailing in the relatively fast, running dupla of presumably Leoninian discant sections, whose tenors were laid out in irregular groups of simple longae. Corollaries of this change were (1) the appearance of longae duplices, which could now be assigned to the pitches of tenors of discant passages; (2) the greater foursquareness of phrases; (3) the recognition of silence as an intrinsic mensurable component of polyphony, potentially equivalent to sound as an element of counterpoint; (4) the consequent change in the meaning of the little stroke known as divisio from a symbol simply denoting the end of a phrase, i. e., a brief, mensurally insig. nificant suspirium, to a measurable rest (pausa); (5) the emergence of the first tenor patterns (four-beat phrases) in the discant settings of cantus firmi, i. e., in discant sections of organa and in clausulas; (6) the growing tendency in such settings to construct the length of the individual phrases (now delimited by precise rests) so as to exhibit mutual numerical relationships; and (7) the awareness, particularly significant in settings for more than two voices, that the voice parts of a polyphonic complex did not need to coincide in their phrase articulation, but could be made to overlap. (See Exx. la-c.) Further refinements of this technique were the lopping-off of some of the phrases in one or more parts by means of rests (Ex. 2a) and the free addition or insertion of rests (Exx. 2b-d). The irregularity of the individual phrases or phrase elements - often no more than single notes set off by rests - exemplifies what medieval writers

## The Medieval Hocket



Ex. 1b. Excerpr from Conductus Dum sigillum (Perorinus); i-F, fol. 345v


Ex. 1c. Excerpt from Organum Exiut sermo; 1-F, fol. 102v


Ex. 22. Excerpt from Organum triplum Exit sermo: I-F, fol. 19; D-W , fol. 15v
(manere)

Ex. 2b. Excerpt from Organum triplum Judea et Jherusalem; I-F, fol. 47; D-W , fol. $6^{\mathbf{V}}$


Ex. 2d. Excerpt from Organum triplum Besedicamus domino (Perotinus?); D-W , fol. 12 (8); I-F, fol. 42v; D-W ${ }^{2}$, fol. 29

called imperfect modes; the dovetailing of sounds and silences produced by the staggered arrangement of rests between the voices produces the well-known "hocket" effect. ${ }^{1}$

The earliest known definitions of the hocket ${ }^{2}$ are given by three contemporary writers, i. e., Franco, Lambertus, and the so-called Saint-Emmeram Anonymous (1279). The latter presents us with the fullest and most illuminating description.

You should know therefore that hocketing is produced either by cutting off sound or without such truncation. In the latter case such passages may or may not have text. If they do, they will conform to one of the modes, such as the first, second, or third, or will observe the compatibility of one mode with another, or with several, and the alternation of groups of notes with rests will proceed subtly from here and there; sometimes one may encounter cases of truncation, but they are rare. When there is no text, the alternation of the voices is the same, but more frequent and also with more truncations. - Hockets involving truncations may be composed over a tenor laid out according to one or several of the modes, or without any tenor, i. e., fundament. If such truncations are founded on a tenor, this will be without text, except in some suitable cases in motets, e. g., in Poure secors [F-Mo 31; D-Ba 36] ${ }^{3}$ or others like it. And note that such alternation is
${ }^{2}$ In 1954 Dom Anselm Hughes pointed out in Vol. II of The New Oxford History of Music (p. 397) that his examples of early hocket passages "show how hocketing may be held to have grown naturally out of the rhythmic patterns in customary use, not out of the natural depravity of the singers, as most medieval and many modern writers would have us believe."
${ }^{2}$ Latin: hoquetus, (h)oketus, (h)ochetus; Latinization of French hoquet (Old French: hoquet, hoket, ocquet, etc., related to English hickock, hicket, hocket, hiccup, and similar onomatopoeic word formations in Celtic, Breton, Dutch, etc., meaning bump, knock, shock, hitch, hiccup); attempts at etymological derivation from the Arabic (sec Heinrich Husmann, "Hoquetus," MGG, VI, cols. 704ff.) must be regarded as unsuccessful.
${ }^{3}$ MSS Montpellier, Bibliothèque de Médecine H 196, and Bamberg, Staatliche Bibliothek, Lit. 115 (olim Ed. IV. 6). All sigla and numerations of contents are given in accordance with RISM B IV.
done two, three or more times in a row at the mutual will of whoever begins or through frequent breaks in the continuity of the adjoined polyphony. ${ }^{4}$ And there are two ways of doing this: either both voices have unisons or different pitches, or one of them has unisons and the other has various pitches. And note that such truncation of pitches is done with perfect longs and breves, which sometimes are arranged in a regular pattern and sometimes not, as will be shown below; it can also be made with unequal semibreves in proper and regular disposition or even irregular with respect to their altered arrangement, as will be demonstrated presently. - In hockets not based on a modal tenor we encounter irregular and unpatterned conformations of longs, breves, and also semibreves, either each kind grouped separately or all mixed together; thus they are seldom, if ever, reducible to any kind of equivalence fitting one of the modal species. ${ }^{5}$

This latter type, he points out somewhat later, occurs "in aliquibus conductis [i. e., conductus caudae, of which he gives an example] sine tenore proprio hoquetatis," ${ }^{\prime 6}$ though still later he adds that some modern hockets based on a Gregorian tenor are also irregular. ${ }^{7}$ In the course of his description of cantus truncatus (polyphony with truncations) he distinguishes between perfect and imperfect hoquetatio; in the latter, only one of the voice parts exhibits truncations

[^76]and there is therefore no interlacement of voices. ${ }^{8}$ He also differentiates between continuous and occasional hocketing (aut continue aut etiam intermisse). ${ }^{8}$ Hence, the term hoquetus must be understood to designate both a technique of counterpoint and a piece in which this technique has been applied throughout. The emphasis placed by the writer on a proper mensural fundament indicates that the origin and continuing principal locus of hoquetus was in cantus-firmus polyphony, where, except for the increasingly oldfashioned organal style, the tenor mandated precise measurement of all elements; the only exceptions are occasional hocket passages in caudas of conductus.

Obviously, this writer's "hocket without truncations" refers to the technique illustrated by Exx. la-c (which is closely related to the device known as voice exchange). Such phrase overlaps can indeed be found in musica cum littera (motets, especially "peripheral" motets and the so-called isoperiodic motets composed in England in the thirteenth and fourteenth centuries) as well as in its historical predecessor, the musica sine littera (discant passages of organa dupla; organa tripla and quadrupla; clausulas). Particularly revealing is the writer's statement that generally hockets with truncations (per resecationem) have no text, "except in some suitable cases in motets." In such cases, which are indeed quite rare in thirteenth-century motets, ${ }^{10}$ they sometimes function as suitable rhetorical ornaments (e. g., exclamations). But primarily they occur in passages in discant style without text, or as independent untexted hocket compositions. The latter therefore constitute the earliest known instrumental (nonverbal) polyphony, i. e., music that, by definition and unlike a great many clausulas, was not intended to be equipped with poetry. Such pieces, which can, of course, also be performed vocally, are preserved in MS D-Ba (Nos. 102-108, one of which the word "viellatoris" identifies specifically as instrumental, at least in origin), in MS F-P 11411, ${ }^{11}$ No. 3, and in MS F-Mo, No. 5. ${ }^{12}$ A fourteenth-cen-

[^77]tury specimen is Machaut's Hoquetus David, in which the part above the tenor is designated "hoquetus." That many more such compositions, now lost, must have been written can be inferred from the reference in the treatise by Jacobus Leodiensis to "hoketos . . . duplices, contra duplices, triplices et quadruplices." ${ }^{13}$ Only one four-part (vocal) hocket is known; it is the final section of a Gloria trope composed in England in the late years of the thirteenth century. ${ }^{14}$

The use of hocket as an exclamatory or pictorially descriptive device disappears from the motet in the late thirteenth century and is in the fourteenth century found occasionally in chansons, in Italian madrigals and ballate, and in chaces and caccie. In two Florentine madrigals, for instance, hocketing has the onomatopoeic function of depicting the calling after a lovelorn eagle who has escaped his master and the happy bleating of a lamb that eluded the voracious wolf. (See Exx. 3a-b.) Melismatic endings (or sectional endings) of secular compositions also at times exhibit hocket technique in a manner first manifested in some thirteenth-century conductus caudas. A motet like F-Mo, 294, on the other hand, shows that the earliest device to emphasize the new strophic structure of fourteenthcentury motets was the isorhythmic recurrence not only of phrase endings, but of hocket passages. Beginning in the 1320 s such hockets occur in many fourteenth-century motets, causing an Italian writer of a mid-century Latin treatise to mention "uchetti" only as features of motets. ${ }^{15}$ Their function now was to serve as recurring structural ornaments, placing in relief the tectonic design generated by the tenor.

[^78]Ex. 32. Excerpt from L'aqwila bella, by Gherardellus de Florentia

(With food in hand I call it.)

(Bleating with happy hops. . . .)
In general, medieval writers confine their definitions of hocket to the technique of truncation, which according to Franco is synonymous with hocket. ${ }^{16}$ Odington describes it as a species of polyphony with or without text, known as truncated music, in which "one is silent while another sings. . . ."17 The comments of most

16 Coussemaker, op. cit., I (1864), 134a; Simon M. Cserba, Hieronymus de Moravia O.P.: Tractatus de Musica (Regensburg, 1935), 257.

17 Coussemaker, op. cit., I, 248b; Walter Odington, De Speculatione Musicae Frederick P. Hammond, ed. (Corpus Scriptorum de Musica, XIV), p. I44. (Hammond's transcriptions of Odington's musical examples require emendations, and text items $6-14 \mathrm{~m}$ it be read in the following order: $8,9,12-14,6,7,10,11$.) The original Latin reads as follows: "Ista truncatio fit super excogitatum tenorem vel super certum ut semper unus taceat dum alius cantat" ("this truncation [i. e., hocket] is made over an invented or a fixed tenor, so that one voice is always silent while the other sings'). Denis Harbinson cites this passage to bolster his conclusion (op. cit., p. 107) that "originally and in the first instance, hocket meant a single-voice syncopation. That
later writers ${ }^{18}$ are derivative and largely recapitulate Franco and Odington, whose definition has also been adopted by modern musicology. ${ }^{19}$ Only Grocheo reports an apparent popularization of hocketing, which as a polyphonic device properly belonged to the exalted sphere of ars musica.
Anyone who wants to make a two-part hocket arrangement, i. e., for a first and second singer, must divide the song or tune which is to be so arranged and apportion it accordingly to each. Such strains can end with bits of appropriate addition, as long as their mensuration is not interfered with. For in this way one overlaps the other in the manner of roof tiles, and thus they will cut each other off continually. 20

This is a relatively simple procedure that presumably required no notation for its convivial performance. A rather sophisticated example, in which each portion is ultimately reduced to the tiniest dimensions, is furnished by the two lowest voices of a fragmentarily preserved four-part English motet, designated "De sancto Laurencio," of the early fourteenth century. ${ }^{21}$ (See Exx. 4a-b.) This

[^79]
(Too foolish is he who right now gives me his wife to guard. . . .)

example also shows the quasi-variational function hocketing occasionally fulfilled. Instances of such treatment can already be found in caudas of conductus of the early thirteenth century, in which hocket technique is at times applied to the melodic substance of preceding sections. (See Exx. 5a-b.) The "peripheral" motets of ca. 1300 tended to assume some of the functions and certain stylistic features of the moribund conductus, and similar, though far more elaborate variation hockets occur in some of them (e. g., F-Mo 311 and the English motet preserved in F-Mo 323-4). ${ }^{22}$

The effect of hocketing is known from other areas than Western Europe and from other times than the Middle Ages. Hocketlike

[^80]
techniques occur in African music, ${ }^{23}$ and silences are certainly prominent in the works of some contemporary composers, such as Webern, Feldman, Babbitt, and Cage. Yet, the conceptual matrix from which these phenomena arise is quite different from the medieval idea of silence as a contrapuntal value. In modern composers' works hocketlike effects are the result of concern with texture or color, while non-Western "hocketing" generally arises from the necessity of allocating portions of a melody or of a complex sound pattern (e. g., Bali) to more than one instrument because of limitations of range, or from the social partiality for rapid and colorful antiphonal interchange.

That particular effect of hocketing of course also delighted the medieval West, as witness the use of such terms as "merry hockets" (hoketi lascivi) ${ }^{24}$ and the procedure described by Grocheo. The latter, who often reports on the music of his time in terms of its human environment, mentions that youths'and temperamental people were particularly fond of hoquetus "propter sui mobilitatem et velocitatem." ${ }^{25}$ It is this "jazzy" quality that usually caused hockets to be composed in the smallest available note values; ${ }^{26}$ since by the later thirteenth century semibreves and breves had hecome equivalent in duration to the breves and longs of earlier times, the fifthmode tenors of some mid-thirteenth-century hockets were evidently

[^81]later rewritten in the second mode, with the result that in many cases hocket passages in the upper voices, originally involving breves and longs, were now rendered as semibreves and breves. ${ }^{27}$ The "jazzy" quality of hockets occasionally prompted ecclesiastical disapproval, such as that in the famous bull of Pope John XXII (1324/25), in which he accused the church musicians of his time of endless abuses, one of which was that "melodias hoquetis intersecant." Yet, the device resisted such attempts at repression. In fact, the development during subsequent decades brought about the rather ironic situation that some of the latest compositions (from the end of the fourteenth century) to exhibit hocket technique are strictly liturgical, i. e., Mass movements (e. g., especially certain isorhythmic compositions in the Old Hall manuscript). Around 1400, however, the beginnings of a profound shift in the conception of polyphony affected the hocket. The construction of music by means of the numerical coordination of heterogeneous, hierarchically ordered durational components, in which melodic considerations are of no structural importance, gradually gave way to the notion of creating a homogeneous contrapuntal fabric from one congenial set of melodic cells. Hence, in works written in the early years of the fifteenth century, notably by composers in Italy or under Italian influence (e. g., Ciconia, Cesaris, Grenon; Dufay's Gloria ad modum tubae) the hocket tradition declined by transforming itself into imitative antiphony. ${ }^{28}$

Ex. 6. Excerpt (upper voices) from motet $A$ virtutis/Ergo beata/Benedicta/Contratenor, by Cesaris

-MS: doctat
(by which our sorrows are soothed, which. . . .)
(and Thou, all-knowing in the royal palace, with Thy prayers place us in your charge, who. ...)

[^82]
## VI

## The Early Motets of Philippe de Vitry*

TWo passages in the Roman de Fareel contain the information that the author's name was Gervais du Bus, who is known to have been a notary at the roval chancellery at least as carly as $1313,{ }^{2}$ and that he completed its two books in 1310 and 13 it. One of the roman's twelve extant sources, the f:mous manuscript Paris, Bibliothèque Nationale, fond frathais ift. presents a version considerably enlarged by copious illuminations as well as by textual and musical insertions. A remark on fol. $23^{\circ}$ attributes these additions to Chaillou de Pesstain, a member of the French royal court and holder of various functions of provincial government, who seems to have completed his revision about the end of $1316 .{ }^{3}$ Several of the motets added by him have been recognized on the basis of circumstantial evidence to be by Phillippe de Vitry:-

In a dissertation on the Roman de Fiatiel published in 1935, Emilic Dahnk briefly mentioned the significant discovery that one of the monophonic compositions included by Chaillou in his edition of the roman and listed as a "prose" in the original index of music, is actually the somewhat altered triplum of a Latin motet, whose tenor is melodically identical with that of a motet preserved in the same manuscript." The "prose," Carnalitas, luxzria, appears on fol. 12. The motet with whose triplum it concords is the first piece (Floret ctmm cana gloria / Florens evigor ulciscendo / |Tenor|) on the verso of the rotulus preserved at the Bibiotheque Royale in Brussels as MS r96o6. And the motet with which the latter shares its tenor is Garrit gallus / In noza fert, presumably one of Vitry's carliest compositions. (The latter motet appears in two sources

[^83]at the Bibliothèque Nationale: MS f.fr. 146 [No. 32] and Collection de Picardie, MS 67 [No. 2].)

The Brussels rotulus exemplifies ars-nova notation at an early but almost fully developed stage. Although the downward tailed semibreve is still used to denote the semibrevis maior, the minim is completely established. All ten of the compositions in this manuscript are motets, except the first piece on the recto, which is the conductus setting of the versicle trope Deus in adiutorium intende laborantium also preserved in the Montpellier Codex and in the MS Vari 42 at the Biblioteca Reale at Turin. Most of the motets are also known from other concordances and have been published in modern editions. ${ }^{6}$ In addition, there are two complete and hitherto unpublished motets: the one mentioned in the preceding paragraph (No. 6 of the manuscript) and Mater formosa / Gaude virgo / [Tenor] (No. 5). A brief description of the latter piece will help to bring the repertoire and its date into focus. The style of this motet, which is constructed over a typical "Petronian" tenor, is relatively old-fashioned. Its first-mode motetus divides the breve into no more than four shorter notes, notated as semibreve, minim, and two semibreves. The triplum, however, subdivides the breve into as many as eight notes, whose durational values (six minims, one semibreve, one minim) accord notationally with the principles propounded in Philippe de Vitry's Ars nova. ${ }^{7}$ Mater formosa / Gaude virgo gives the impression of a composition by a successor to Petrus de Cruce, such as Johannes de Garlandia, the younger, ${ }^{8}$ but with its original notation (without minim stems) modernized, as is true of the five Fauvel concordances contained in this source. In view of the notational evidence, the manuscript may be dated ca. 1320 , but part of its repertoire extends back to $c a$. 1300 . Both MS 146 at Paris and the Brussels rotulus are likely to owe much of their polyphonic contents to a source such as MS f. fr. 571 , which was written in 1315 or during the early months of $1316 .{ }^{9}$

Mater formosa / Gaude virgo is not known from any other source, and Floret / Florens has likewise generally been regarded as a unicum. ${ }^{10}$ However, in 1956 Leo Schrade had identified a composition partly pre-

[^84]served in MS ${ }_{1} 328$ at Cambrai (No. 48) as a concordance, with the tenor, unlabeled in the Brussels manuscript, identified as Neuma [quinti toni]. He was able to deduce, therefore, that the marginal $n$ next to the tenor of Garrit gallus /In nova fert in $f$. fr. 146 was a scribal indication of the first letter of Neuma; ${ }^{11}$ it was disregarded by the illuminator, since the scribe had neglected to write the remaining letters at the beginning of the tenor.

Only one other fourteenth-century motet exists whose tenor is also a neuma on F. It is Vitry's Douce playsance / Garison / Neuma quinti toni, which is not in $f . f r$. 146. He must have written this piece by ca. 1320, since he mentions it in his Ars nova. ${ }^{12}$ It certainly would not do to attribute Floret / Florens to Vitry merely because its tenor melody is identical, or nearly identical with that of two motets both of which are his compositions. But a brief summary of his innovations, together with a discussion of each of his earliest motets, will yield several additional factors, both musical and textual, that make the attribution of Floret / Florens to Vitry just about inescapable.

In the motet style of Petrus de Cruce, neither the patterning of the slow tenor nor the rationally balanced phrase layout of the upper voices played any significant structural role. The reformulation of these principles by Philippe de Vitry is what the author of Les Règles de la seconde rbétorique must have had in mind when he credited Vitry with having invented "la maniere des motets." What Vitry, barely more than twenty years old at the time, had already accomplished with his earliest motets was the combination of a superstructure of two voices moving prominently in semibreves and minims, with a slow tenor, to which the principle of patterning was again rigidly and markedly applied. Although the resultant motets are necessarily far longer than earlier specimens, they continue thirteenth-century tradition, since it is the numerical interrelation of the phrase structure of the upper voices with the rhythmic character of the tenor talea that gives each motet its particular form.

The unique phrase structure of Garrit gallus / In nova fert / Neuma reflects the talea, which is, in effect, a rhythmic palindrome (it could be viewed as an unusual combination of third-mode and fourth-mode patterns): . . . . . . 1. . .. . , I Since the ternary rest is necessarily omitted at the end of the piece, the entire tenor, consisting of six taleae, is likewise a palindrome, the center of which is the rest following the third talea. All three voices demonstrate the motet's modular number (25) and the palindrome concept:

[^85]\[

$$
\begin{aligned}
& 16 \mathrm{~B}+(17+8+17+8+17+8+17+8+17 \mathrm{~B})+14 \mathrm{~B} \\
& 15 \mathrm{~B}+(17+8+17+8+17+8+17+8+17 \mathrm{~B})+15 \mathrm{~B} \\
& 6 \mathrm{~B}+(10+15+10+15+10+15+10+15+10+15+10 \mathrm{~B})+6 \mathrm{~B}^{14}
\end{aligned}
$$
\]

The two types of phrase found in the upper voices thus stand nearly in a 2 : 1 relationship.

The modular number of Tribum / Quoniam / Merito, another motet generally accepted as one of Vitry's early works, ${ }^{15}$ is 24 :

$$
\begin{aligned}
& 9 \mathrm{~L}+2(12+12 \mathrm{~L})+12 \mathrm{~L}+9 \mathrm{~L} \\
& (3+12 \mathrm{~L})+2(11+13 \mathrm{~L})+15 \mathrm{~L} \\
& 6 \mathrm{~L}+3[4(6 \mathrm{~L})]
\end{aligned}
$$

The first four multiples of the number 3 are all represented in the phrase structure. While the tenor appears to have a modal pattern (first ordo of second mode, expressed in longs and double longs), the phrase structure of the upper voices, especially of the motetus, would seem to indicate a structure of three long taleae, each containing four ordines. Yet, the incidence of isomelic correspondences in all three voices would also justify a view of the tenor as $6 \mathrm{~L}+6[2(6 \mathrm{~L})]$. In any case, the motet represents an imaginative ordering of modal tradition to produce a novel, large-scale structure.

Firmissime / Adesto / Alleluya also has a second-mode tenor pattern (second ordo) expressed in longs and double longs. It is, moreover, one of the two earliest motets by Vitry to experiment with diminution in the tenor, which is laid out in eight taleae of nine longs (or eighteen breves) in the first section and eight taleae of three longs (six breves) in the second. The upper voices evidently interpret the number $7^{2}$ in terms of 12 and $18,{ }^{18}$ while the total length of 24 beats of the diminution section is mainly composed of units of 7 . The intricacy of the arrangement (for example, $19=12+7 ; 14=7+7$ ) leaves some loose ends:

$$
\begin{aligned}
& 6 \mathrm{~L}+[(9+9 \mathrm{~L})+12 \mathrm{~L}]+[(9+8 \mathrm{~L})+14 \mathrm{~L}]+3(7 \mathrm{~L})+(5+3 \mathrm{~L}) \\
& (12+9+9 \mathrm{~L})+(12+18 \mathrm{~L})+19 \mathrm{~L}+7 \mathrm{~L}+5 \mathrm{~L}+5 \mathrm{~L} \\
& 8(9 \mathrm{~L})+8(3 \mathrm{~L})
\end{aligned}
$$

${ }^{14}$ Numbers in italics designate the use of coloration. If the tenor is articulated according to its phrase content, the number 25 is again seen to be governing: $5(12+$ $\left.{ }_{13} \mathrm{~B}\right)+(12+10 \mathrm{~B})$. A breve rest is missing in f. fr. 146-but not in Collection de Picardie, MS $67-$ after the word "proprio" of the triplum; mm. 17-18 of the edition in Polyphonic Music of the Fourteenth Century must be amended accordingly. The irregularity of the enframing phrases of the triplum is accounted for by the necessity of avoiding coincident rests in the upper voices. See No. 294 of the Montpellier Manuscripr.
${ }^{15}$ See Leo Schrade, "Philippe de Vitry: Some New Discoveries," The Musical Quarterly, XLII (1956), 335 ff .; also Polyphonic Music of the Fourteenth Century, Commentary to Vol. I, pp. 30 ff .

16 Measures 17-21 of the motetus in Polyphonic Music of the Fourteenth Century must be emended to be read mm. 18-21, 17, in accordance with Brussels, Bibl. Royale, MS 19606 and London, British Museum, Add. MS 28550.

The other early motet by Vitry to apply diminution to the cantus firmus is Douce playsance / Garison, which uses a form of the Neuma quinti toni as its tenor and, like Garrit gallus / In nova fert / Neuma, alternates black and red notation in its tenor pattern. The phrase structure of this motet is a good bit more sophisticated than that of Firmissime / Adesto / Alleluya:

$$
\begin{aligned}
& (18+26 \mathrm{SB})+3(34+26 \mathrm{SB})+22 \mathrm{SB}+3(2 \mathrm{ISB})+15 \mathrm{SB} \\
& (42+27 \mathrm{SB})+3(33+27 \mathrm{SB})+3(2 \mathrm{SB})+12 \mathrm{SB} \\
& 4(36+24 \mathrm{SB})+4(9+12 \mathrm{SB})
\end{aligned}
$$

The layout is such that in all but four phrases of the motetus the beginnings or endings nearly coincide with the endings or beginnings of triplum phrases; moreover, in the diminution section all phrase endings of the motetus coincide with phrase endings of the tenor. The disposition of the latter, displaying what is basically fifth-mode patterning in its first section, is particularly fascinating; its ingredients are proportioned in ratios of $12: 8$ and $3: 4$, the second part of each of the eight taleae being in imperfect mensuration (red notation). The two tenor patterns of each motet are shown in Example i.
Example :


Tenor patterns of Douce playsance / Garison / Neuma quinti toni


Vitry's use of diminution warrants a brief digression. Although the second half of the tenor of Firmissime / Adesto / Alleluya happens to produce a section of music one third as long as the first section, Example i shows diminution to be a misnomer for the procedures in both motets. The conceptual impulse producing the bisectional arrangement of the tenors goes back to the practice of assigning to a cantus firmus a faster
pattern upon its restatement. Since in this tradition both patterns were modal, they could not be exactly proportional. ${ }^{17}$ The fashioning of a second pattern as a precise diminution of the first is an idea that had emerged by ca. 1320, since diminutio dupla is applied to the tenor in two of Vitry's motets that are mentioned in his Ars nova. Proportion thus replaces change of pattern. This could not have come about before the advent of the prolation system, since without prolatio in the upper voices, diminution of the tenor would have destroyed the hierarchical differentiation of voices, a cardinal principle of Vitry's motet structures. ${ }^{18}$ By the same time, the system of rhythmic modes and the modal patterning of tenors has become meaningless and is replaced by the composers' entirely discretionary shaping of tenor patterns. What we are witnessing is the completion of a shift the beginnings of which were codified by Franco, a shift, that is, from a concept of measured music in which phrases were recognized as mensurally patterned Gestalten (Notre Dame), to one in which it had become necessary to count beats and groups of beats; the notae impares of an ordo had become principia perfectionum. A new way of measuring time by mechanical units had begun to impinge on organic time as experienced. In the art of music, the fourteenth-century tendencies toward greater precision in the numerical foundation and extension of structures originate in these motets of Vitry. During the second half of the century, the large-scale significance of proportional diminution of the tenor became ever more significant-in the end, exclusively so. ${ }^{19}$

Floret / Florens / Neuma is less advanced in technique than the other motets discussed so far, but in several respects it is similar to the three of them that Vitry had composed by 1316 (Garrit gallus / In nova fert / Neuma; Tribum / Quoniam / Merito; Firmissime / Adesto / Alleluya). Its tenor, entirely in black notation, has a second-mode pattern. Example 2 provides a comparison of the three Neuma tenors. The motet's phrase structure, utilizing the first nine multiples of the number 3 , is still somewhat untidy, not unlike that of Firmissime / Adesto / Alleluya:

$$
\begin{aligned}
& (30+27 \mathrm{~L})+(18+21 \mathrm{~L})+(15+2 \mathrm{IL})+9 \mathrm{~L}+12 \mathrm{~L} \\
& 24 \mathrm{~L}+(18+2 \mathrm{I}+18 \mathrm{~L})+12 \mathrm{~L}+(21+2 \mathrm{I}+18 \mathrm{~L}) \\
& {[2(6+6+27 \mathrm{~L})]+[(6+6+27 \mathrm{~L})+(6+6+24 \mathrm{~L})]}
\end{aligned}
$$

[^86]

That its total length exceeds 1 go longs by three, while that of Garrit gallus / In nova fert / Neuma falls short of 150 by the same number could hardly be more than a fortuitous coincidence. More indicative is the circumstance that both motets not only have identical clefs for each of the three voices, but their motetus and triplum parts also begin an octave and a fifth above the tenor, respectively (as do those of Douce playsance / Garison / Neuma). In addition to the structural "untidiness" shared by Floret and Firmissime / Adesto / Alleluya, the two motets are further related to one another stylistically in that both still have quite a few melodic fourths and repeated notes. Moreover, the only motets in the Roman de Fauvel that, like Floret / Florens / Neuma, are sufficiently advanced to have a patterned tenor, a rationally ordered phrase structure, and minims (semibreves minimae) in the upper voices, are those by Philippe de Vitry that were discussed so far. Since a somewhat altered version of the triplum Floret appears in the same manuscript, it would be capricious to deny Vitry's authorship of the motet. Like Tribum / Quoniam / Merito, it must be attributed to him for the two reasons that it seems characteristic of his early style and that it is one of the most advanced motets to be utilized by Chaillou in $f$. fr. 146. Moreover, the other motets based on the same or closely related cantus firmus are both by Vitry. ${ }^{20}$

The question remains why Chaillou de Pesstain incorporated only the triplum of Floret / Florens / Neuma into his edition of the Roman de Fauvel. An examination of the text of the motetus suggests the answer. In spite of the imperfections of both preserved versions, ${ }^{21}$ the motet can be transcribed reliably enough to allow its addition to the group of three motets whose political meaning was revealed by Ph. Aug. Becker (that is, Garrit gallus / In nova fert / Neuma; Tribum / Quoniam / Merito; and Aman novi / Heu fortuna / Heu me). ${ }^{22}$ Specifically, a close topical relationship exists between Florens and the last named of the three motets. The other two, Becker wrote cautiously, "are said to be by Philippe de Vitry, and [the third] might also be.' ${ }^{23}$

Both upper voices of Aman novi / Heu fortuna / Heu me describe how the fickleness of fortune had suddenly brought about the execu-

20 The Brussels and Cambrai manuscripts are, thus, important sources of music by Vitry. In proportion to total motet content, they preserve more works of which he is very probably the composer than does any other manuscript.
${ }^{21}$ In copying this particular text, the scribe of the Brussels manuscript unfortunately proved himself a paragon of ignorance and sloppiness. The Cambrai manuscript, though later by no less than thirty years, is far more accurate, where it is legible, which is not often the case. See the appendix to the present study.
${ }_{22}$ Ph. Aug. Becker, "Fauvel und Fauvelliana," Bericht über die Verbandlungen der Sächsischen Akademie der Wissenschaften zu Leipzig. Pbilologisch-bistorische Klasse, LXXXVIII ( 1936 ), 36 ff . I am grateful to Kenneth and Jean Wentworth for their examination of the Cambrai manuscript.
${ }^{23}$ Ibid., pp. 36 f.
tion by hanging of a recently powerful person referred to as the new Haman, with the triplum specifying the place as Montfaucon, where the public gallows of Paris were located. As Becker pointed out, the reference is to the hanging of Enguerrand de Marigny, the finance minister of Philippe IV (Le Bel). No more than two years before, Marigny and his Goebbels-like colleague, Guillaume de Nogaret, were still at the height of their oppressive powers. By 1314 , however, things had begun to change. Nogaret had died, the nobility and higher clergy were organizing their resistance to the king's (that is, to Marigny's) excessive taxation, Marigny's financial dealings had come under suspicion, and Philippe died on November 29, to be succeeded by his son Louis X. Marigny's enemies, chief of whom was the new king's uncle, Charles de Valois, ${ }^{24}$ easily persuaded Louis that Marigny's fate had to be sealed promptly, and after a brief investigation and kangaroo trial, Marigny was hanged on April 30, 1315.

Florens likewise refers to Haman, but in addition also mentions his adversary, Mordecai. Exegetically applying the motif of vengeance (ulciscendo) in the story of Purim to the political situation of the day, the poem predicts the fate of "Haman" and his sycophants.

Florens vigor ulciscendo iuste vincens omnia ad tibi fides loquendo

* fastus ad supplicia qui Aman genu flectendo impediunt obsequia causatori adherendo fugiunt causaria sicque falsum sustinendo succumbit iusticia Mardocheo detrahendo preparant exidia que in ipsos convertendo sencient duplicia cum iudex discuciendo iusta dabit premia.

O growing power, justly victorious over all in your vengeance, in speaking for a day of judgment you shall trust yourself to attain the death penalty; they who by bending their knee before Haman debase proper observances, by sticking with the adversary seek to avoid all adversity; and thus by sustaining falseness, justice succumbs; by humiliating Mordecai they prepare ruin, which they will suffer doubly, as it turns to befall themselves, when the judge (Judge?), in smashing them, will bestow his just rewards.

If "Haman" is Marigny, "Mordecai" can only be Charles de Valois. While the enmity of the two men had been simmering for some years, Charles's hostility and eagerness for revenge had been greatly reinforced by Marigny's tricky conclusion of a peace agreement with the Flemings early in September of 1314. Many in France, and most prominently Charles de Valois and his nephew, the future king, were scandalized by what they considered a rank betrayal, and Charles doubtless experienced a deep sense of humiliation, for on October to he had to ratify the accord in the name of the king, who was steadily declining in health and political

[^87]stature. ${ }^{25}$ The motetus poem can certainly, though not inevitably, be understood as reflecting the situation that prevailed between September and November of 1314. In 1316, however, when Chaillou was making his edition of the Roman de Fauvel, this text was no longer topical; nor is it in any way pertinent to the passage of the roman to which he added the triplum. The latter, being an impassioned diatribe against an impressively comprehensive catalogue of flourishing evils, suited the context well, and so, altering it somewhat, he incorporated it.

Chiding motet texts, though rare, were not unknown in the thirteenth century. None of them, however, is as personally pointed as this group of four compositions, and none uses biblical analogy in so specifically rebellious a fashion. ${ }^{26}$ Florens sounds like the peroration of a topical sermon, and indeed its source seems to be exegetic.

Relatively few Christian commentaries on the book of Esther were produced during the Middle Ages, ${ }^{27}$ while those of Jewish medieval theologians were far more plentiful. ${ }^{28}$ It comes as no surprise, therefore, that the one outstanding Christian exegete of the Middle Ages to deal thoroughly with the book of Esther was Nicolaus de Lyra (ca. $1270-$ 1349), who in 1308 had become professor of theology at the University of Paris. ${ }^{29}$ His ambitiously exhaustive Postilla litteralis in Vetus et Novrm Testamentum, which became the most famous exegetical work of the Middle Ages and exerted a strong influence on Luther, gives copious evidence of his outstanding familiarity with Jewish commentators and particularly with the work of Rashi.

Earlier commentators, such as Rupert of Deutz (d. 1129), Joachim of Flore (d. 1202 ), and Vincent of Beauvais (d. ca. 1264), can be expected to interpret Haman allegorically. For them, he, like Nebuchadnezzar, was a typological precursor of Christendom's persecutors, indeed of the Anti-

[^88]christ. ${ }^{30}$ What was modern about Nicolaus's interpretative approach to the Bible was its rejection of allegory and its devotion to clear factual exegesis. For him Haman and Mordecai were the prototypes of the evil and the just courtier.

The matter he treats by far most extensively in his commentaries on the book of Esther is Mordecai's refusal to genuflect before Haman. Adducing considerable biblical documentation he points out "quod adoratio per genuum flexionem sit soli deo exhibenda." And he continues with this striking passage:
.. . licet adoratio principaliter consistat in actu interiori mentis deum reverentis, habet tamen ex consequenti aliquem actum seu obsequium exterius, quod est signum actus interioris. . . . Et in hoc omnes doctores hebrei et latini convenerunt quod sit aliqua reverentia seu servitus exterior vel plures soli deo exhibenda. . . . Dixerunt enim doctores hebrei quod genuum flexio unius vel duorum est huiusmodi. ${ }^{31}$
While adoration is principally an inward act of the mind reverencing God, it nonetheless brings with it some sort of outward act or observance as token of the inward act. . . . All Hebrew and Latin teachers have been in agreement that a certain outward reverence or obeisance, or even several, should be shown only to God. . . . And the Hebrew teachers have said that the bending of one knee or of both is of this kind.
And thus, one might well continue in the words of Florens, those who bend their knee before Haman debase proper observances. The thinking that produced both utterances is clearly the same; indeed, the same word (obsequium) is used in both passages. While Nicolaus began to publish his Postille only in $1322,{ }^{32}$ "he already had in hand the product of years of 'laboratory' experience in the study and teaching of the biblical text." ${ }^{3}$ It seems more than probable that one or another of his university lectures stimulated the political application of the story of Haman and Mordecai in two motets of the early fourteenth century.

Four men are known in one way or another to have been involved in the composition and revision of the Roman de Fauvel: Gervais du Bus, the author; Chaillou de Pesstain, the reviser; Jehan Maillart, another of the king's notaries, from whose Roman du Comte d'Anjou (1316) Chaillou borrowed long passages; ${ }^{34}$ and Philippe de Vitry. The fact that all of

[^89]them were members of the royal court may seem astonishing, ${ }^{35}$ especially since the roman's first book ( 13 Io !) abounds with ultraclerical denunciations of the king, of the first of the Avignon popes, and of the many servile bishops of France. However, du Bus, Chaillou, and Vitry were all men whose youth perhaps makes critical political commentary somewhat less surprising. Moreover, du Bus and Vitry were ordained clerics, and so was Magister Nicolaus de Lyra. University circles not only showed antagonism toward the abuse of power by higher clerics, ${ }^{36}$ but they were actively and critically involved in politics. Floret / Florens / Neuma may be taken as support for the reasonable assumption that Vitry must have had contact with some of the university faculty, many of whom were liberals both in theology and in politics. ${ }^{37}$ While we do not know for whom the Roman de Fauvel was written, the circumstances here set forth strengthen the hypothesis that it must have been created by and for members of the intelligentsia, whom Johannes de Grocheo, as early as 1300 , had described as the only proper public for motets.

It should be pointed out that Leo Schrade in 1956 stated that for certain stylistic reasons Floret / Florens / Neuma "has a very serious claim upon the authorship of Philippe de Vitry." A curious preconception apparently kept him from pursuing the matter and, particularly, from examining the text of the motetus. He thought of the triplum, Floret, as a revised version, a textual parody of the Fauvel "prose" Carnalitas luxuria. "We are inclined to believe that the prose represents the original, the triplum the revision. . . . ${ }^{38}$ Even if one disregards the motetus, this theory is untenable for a number of reasons: ( 1 ) Chaillou's version of the Roman de Fauvel contains several adaptations of well-known compositions; (2) motets are constructed a fundamento, not from the top down; (3) near the end of the prose the regular rhyme scheme of the triplum is disrupted; (4) the prose is the only monophonic composition in the roman to use the semibreve as a syllabic value; ${ }^{39}$ (5) the long rests of the motet are faithfully and uselessly retained in the prose; (6) instead of the last

[^90]musical phrase of the triplum, the prose has four, ${ }^{40}$ the length of two of which is equivalent to ten longs each, while the length of every other phrase of the motet represents mutliples of three longs; (7) the four last phrases of the prose "centonize" sizable chunks of the last and of the first three phrases of the triplum.

As regards Aman novi / Heu fortuna / Heu me, Schrade, throwing Becker's caution to the winds, stated that "for obvious reasons, the same author must be claimed for the three, inseparable motets" ${ }^{41}$ discussed by his predecessor, and "if we assume Philippe to be the composer of one [or two] of the works in the group, the inseparable association of the three motets as well as their close stylistic affinity make the same authorship for all three mandatory. On logical and artistic grounds, Heu, Fortuna must now, therefore, be regarded as a composition by Philippe de Vitry." ${ }^{12}$ He then proceeded to credit Vitry additionally with the Fauvel motet Orbis orbatus / Vos pastores / Fur non venit. In support of this attribution Schrade pointed to its stylistic "identity" with Aman novi and its citation in the Ars nova. Apart from the fact, however, that these two works would be the only motets by Vitry to be preserved as unica in f. $f r$. 146 , their attribution to him would force us to postulate a curious inconsistency in the composer's development: both motets, written after as advanced a piece as Garrit gallus, lack a coherent phrase structure and generally exhibit a conservative facture in some ways reminiscent of the time of Petrus de Cruce. Moreover, the fact that a number of his motets are cited-anonymously-in the Ars nova "can hardly be considered as evidence that he quoted his own works exclusively." ${ }^{43}$ Vitry's authorship of both motets must, therefore, be regarded as very doubtful. Some lesser musician was apparently reminded by Marigny's hanging of the biblical imagery so originally used in Vitry's early motet. Aman novi / Heu fortuna / Heu me is best regarded as this anonymous composer's creation, even though, admittedly, its melodic lines are somewhat reminiscent of the élan of Vitry's style.

The compositions that may reasonably be claimed as Vitry's earliest motets may now be listed and dated as follows: ( 1 ) Firmissime / Adesto / Alleluya-by mid-1314; (2) Floret / Florens / Neuma-probably Sep-tember-October, 1314, certainly no later; (3) Garrit gallus / In nova fert / Neuma-probably October-November, 1314, certainly no later, since it reflects the state of political affairs before Philippe's death; (4) Tribum / Quoniam / Merito-1315, after April, since it comments on the hanging
${ }^{40}$ The antepenultimate phrase of the triplum is also altered extensively in the prose.
${ }^{41}$ Schrade, "Philippe de Vitry," p. 338.
42 Ibid., p. 339; similarly in Polyphonic Music of the Fourteenth Century, Commentary to Vol. I, p. 33.
${ }^{43}$ Gilbert Reaney, "The 'Ars Nova' of Philippe de Vitry," Musica disciplina, X (1956), 9.
of the leader of the tribe; (5) Douce playsance / Garison / Neuma quinti tomi-ca. 1317 . $^{44}$

The first four of these works are all utilized in $f . f r .146$, and it is not unreasonable to assume that, quite possibly, all of Vitry's motets composed at least up to about 1317 have come down to us. But thereafter the record is lamentably spotty. Of other works he may have written before his famous treatise we know only two motets (ca. 1320): Colla iugo / Bona condit / Libera me and Tuba sacre fidei / In arboris / Virgo sum. They can be ascribed to him on the basis of indirect evidence. There are five additional motets, written in later years, that are more or less reliably attributable to Vitry: Cum statua / Hugo / Magister invidie (ca. 1330); Impudenter / Virtutibus / Contratenor / [Alma redemptoris mater] (ca. 1330); O canenda / Rex quem / Contratenor / Rex regum (1330s); Vos quid / Gratissima / Contratenor / Gaude gloriosa ( 1330 s ); Petre clemens / Lugentium / Tenor (1342; quite possibly ${ }^{2} 350$ ). ${ }^{45}$ That is all that remains of the musical output of the man who was known to his contemporaries as an outstanding philosopher, poet, mathematician, as the "eminent prince of musicians" and "the flower of the entire musical world," and, in the words of Gace de la Buigne (ca. 1370), as the composer "qui mieulx fist motets que nulz hom." ${ }^{46}$

## Columbia University

[^91]Appendix
Critical Edition of Floret / Florens / Neuma
Brussels 19606, verso top
Cambrai 1328, fol. 12







## Texts

(Except for resolution of abbreviations and capitalization of names, the texts are given as they appear in the sources.)

## Triplum

Floret cum vana gloria novitatum presumpcio ypocrisis iactancia discordia contencio ac inobediencia pertinencie captio procedit ex invidia in prosperis afflictio detractio et odia

Together with vainglory the impudence of the latest events grows and flourishes, as do hypocrisy, boastfulness, dissension, disputatiousness,
and disobedience;
from envy follow
seizure of property,
affliction in prosperity, slander, hateful and
nocensque susurratio de proximi iniuria iocunda exultacio ex ira contumelia exit et indignacio clamor rixe blasphemia mentis viget inflacio profluit et accidia foras mentis vagacio malicia pigricia rancor et desperacio manat ex avaricia fallacia prodicio iniquitas periuria fraus cordis obduracio ex gula inmundicia sensus hebes in genio scurrilitas leticia vana cum multiloquio sequitur ex luxuria huius mundi affectio cecitas inconstancia ac inconsideratio horror futura gloria gravis precipitacio in deum perit odia nostre carnis dilectio.
harmful whispering, and gleeful exultation at misfortune befalling one's neighbor; from anger arise insult and provocation, the clamor of strife, and blasphemy; conceit flourishes; disgust is spreading all over, as are mental derangement, malice, sloth, rancor, and despair; from avarice flow intrigue, treachery, wickedness, perjury, fraud and hardheartedness; from gluttony come lust and dulled sensation in taste; from extravagance there result buffoonery, garrulous, empty merriment, the distemper of this age, its blindness, fickleness, and inconsiderateness; oh, horror-our glory will turn out to be grievous ruin; before God the odious love of our flesh comes to naught.

Motetus: (See p. 32.)

## Critical Commentary

Variants in Brussels, Bibliothèque Royale, MS 19606

Triplum

meas. 11-16: ultiscendo
37-40: five syllables missing
44-46: amant
59: d
72: ef $g$ (semibreve and plicated breve)
84: g fefg (semibreve, minim, two semibreves, minim)
97-100: doceo
117-18: ipsis 127-28: senciendo

Tenor (unlabled)

| 44 |  |  |
| :---: | :---: | :---: |
| Variants in Cambrai, Bibliothèque Communale, MS B. 1328 |  |  |
| Triplum |  | Motetus |
| meas. 1-2 : | text illegible | meas. 1-19: music cut off |
|  | music cut off | 8-20: text illegible |
| 9-12: | music illegible | 28: no plica |
| 11-16: | text illegible | 34-35: text illegible |
| 20-24: | music illegible | 44: no sharp (?) |
| 25-26: | text illegible | 44-46: text illegible |
| 35-36: | text illegible | 50: no flat |
|  | text illegible | 55: g (breve) |
|  | music and text illegible | 77-79: text illegible |
| 64-65: | text illegible | 82: no plica |
|  | $d c c ;$ no sharp (?) | 110: gg |
|  | text illegible | 111-28: text illegible |
|  | $d d$ | 117-18: music illegible |
| 72-76: | music illegible | 128: no flat |
| 83-84: | text illegible | 132: $f$ (breve) |
|  | inequitas | 141: no flat |
| 98-100: | periurio | 143: ee (breve, minim) |
|  | music and text illegible | 143-51: text illegible |
| 103: | no flat (?) | 144: $f$ (breve) |
| 108-109: genii |  |  |
| 112-20: text mostly illegible |  |  |
| 128: et |  |  |
| 134: text illegible |  |  |
| 136-39: | $f \mathrm{ffg} \mathrm{fg} \mathrm{fg} a$ | Tenor |
| 142-44: | music and text illegible | Tenor |
|  | $d c$ | Sig.: no flat |

Variants in Paris, Bibliothèque Nationale, f. fr., MS ${ }_{14} 6$
Triplum (only)

mn. 118 ff .


## VII

## ENGLISH POLYPHONY IN THE MORGAN LIBRARY MANUSCRIPT

In his discussion of a fragmentary fourteenth-century manuscript of English polyphony recently acquired by the Pierpoint Morgan Library in New York, Frank Harrison remarked that the texts of two items mention Edward III. ${ }^{1}$ No. 1, 'Singularis laudis digna', ${ }^{2}$ and No. 3, 'Regem regum collaudemus', are the only known English compositions of that time to deal with public events and personages. Their texts enable us to date these compositions with fair precision.

The first piece reads as follows:
[1a] Singularis laudis digna dulcis mater et benigna sumas ave grati[e]
[2a] Hester flectit Assuerum vindex plectit ducem ferum precis in oraculo. [MS: vindicti]
[3a] Cesset guerra iam Francorum quorum terra fit Anglorum cum decore lilii.
[1b] Stella maris appellaris deum paris expers paris [MS: maris] loco sedens glorie.
[2b] Tu regina regis regem et conserva tuum gregem maris in periculo.
[3b] Et sit concors leopardo [MS: leoperdo]
per quem honor sit Edwardo regi probo prelii. [MS: pre lilii]

Sweet and kindly mother, worthy of singular praise, please accept this thankful greeting. Thou art called star of the sea, Thou givest birth to the Lord and, equalled by none, Thou sittest in the place of glory.
Esther assuages Ahasuerus; the protectress placates the fierce sovereign with her wisely spoken entreaty. Thou guidest the king, o queen, and preserve Thy flock in the sea's peril.

May the war of the French cease now, whose land becomes that of the English, along with the adornment of the lily. And may that land consent to the leopard, through which honour should be given to Edward, the king, so excellently capable of combat.

Traditionally, the English kings' beasts were leopards in blazon, in ballad and in chronicle. Moreover, England bore the fleur-de-lis

[^92]for centuries after 1340, the year in which Edward destroyed the French navy and assumed the title of King of France. That battle had been so expensive, however, that before the end of the year he concluded a truce and went home. More far-reaching was the campaign of 1346-7, in the course of which he conquered large areas of France (nearly as far as Paris) and besieged Calais for almost a year, before the city finally surrendered. The lives of six of its most prominent citizens, whose deaths Edward had decreed as the city's punishment, were spared at the entreaty of Philippa of Hainaut, Edward's queen, who, constantly accompanying him on his campaigns, exercised great influence over her husband throughout their marriage. Her intercession in this case became one of her most famous actions. In the context of the poem and of these events Esther and Ahasuerus could hardly stand for anyone other than the queen and the king; and the poem could only have been written in 1347, presumably in October of that year, when Edward returned to England. ${ }^{3}$ Of the three chapels for which Harrison suggested the Edwardian items (and perhaps all others) of the manuscript might have been written, ${ }^{4}$ the king's household chapel seems the most likely.

The text of the second item, which, sadly, is slightly defective, reads as follows:
[1] Regem regum collaudemus in quo regis de[cante]mus Edwardi preconia.
[2] Hic [hinc?] est ille deo gratus
[quia] totus vite status sanctitate claruit.
[3] [Duc nos ce]li civis hoc exilio sursum fixo mentium hospicio [MS: mentis]
[4] [Recte te in]duc nos ergo venerari
per omnia dignum lau[dis] exultari.

Let us join in extolling the king of kings, in whose spirit let us sing the praises of King Edward.

He is dear to God because the entire way of his life has become renowned for its virtue.
Lead us, o citizen of heaven, up from this exile to the pledged abode of the souls.
Show us, therefore, how properly to venerate you and to exalt you who are in every way worthy of praise.

The poem cannot have been written before 21 June 1377, the day of the king's death. Moreover, the relative frequency of flagged semiminims, which appear, to a lesser extent, in only one other composition (No. 4), would make an earlier dating unlikely in any case. Thus the items of the manuscript stretch from c. 1300 or 1310 ,

[^93]the approximate date of No. 12, a concordance of one of the compositions in the so-called Worcester Fragments, ${ }^{5}$ to no earlier than 1377.

As regards its contents, the variety of styles and techniques represented in this source is astonishing. Three compositions are especially noteworthy. No. 6 is a textless and unlabelled piece, ${ }^{6}$ whose upper two voices consist almost entirely of breves, mostly ligated. The tenor, however, is written in semibreves and minims with a few unexplained peculiarities, the most important of which is that, as Harrison has indicated, ${ }^{7}$ all the notes have to be read as breves anyway. Even more startling is the fact that the tenor of the second of the two sections constituting this composition is the retrograde inversion of that of the first.

No. 13 is listed by Harrison as a setting of an Agnus for two voices. In general, an English composition of the thirteenth or fourteenth century for two voices is unusual and deserves scepticism. In the case of the Morgan Library manuscript it is exceptional. The addition of counterpoint to No. 13 as seems necessary and proper turned out to be a suggestively easy task. Not surprisingly it took shape as a middle voice. It is striking, however, that, more than in the case of the two extant voices, its three sections seemed to be variations of one another. Consultation of chant books revealed that the reconstructed voice was a lightly paraphrased cantus firmus, namely No. VI of the Vatican Edition (Sarum No. 4), with the same slight variant from the Sarum melody that is also found in the settings of this Agnus in two other English fragments of the fourteenth century, which are more or less concordant with one another. ${ }^{8}$ The question remained where this missing voice might have been notated. While the musical content of most of the pages is not cut at the bottom, in a few cases, where the scribe filled the original or intended bottom margin with music, that musical evidence has partly or largely disappeared. In this instance it turned out that one hitherto unnoticed millimetre of an oblique ligature grazing the partly preserved top line of the missing staff escaped the knife (see Ex. 1). That fleck of ink represents the highest note and, by implication, the next note of the chant melody. There would, however, have been insufficient room left on the page for the three variational paraphrased statements of the chant, whose settings of the three invocations are identical. In view of the fact that each of the three sections of the composition, whose unsigned mensurations are, successively, tempus imperfectum, prolatio minor; tempus imperfectum, prolatio maior; tempus perfectum, prolatio maior, consists of an identical number of measures, it

[^94]
seems that the scribe must have written the tune only onceinstead of three times-on the missing staff. In that case there would have been room enough, and the tip of the iceberg should show up precisely where, in fact, it does. At the same time this would, of course, explain the separate notation of the tenor. The necessary adjustments, which were easily made, may have robbed the fictitious voice of a little smoothness and contrapuntal suitability, but gave it believable consistency and authenticity. To my knowledge there is no earlier source that writes a tenor once, to
be read three times to accommodate itself to three different mensurations in the other two voices, let alone in a discant setting of an item of the Ordinary of the Mass. It would be nice to know what the singer's instructions were.

Finally, a brief comment on No. 10. In the case of this Sanctus setting-as well as in a few of the free compositions-the voices are so individualized and differentiated in their phrase layout, rests and ligatures that it is often virtually impossible to apportion the text to the upper two. Such cases present provocative problems with respect to performance practice.

## VIII

## Consonance and Rhythm in the Organum of the 12 th and 13 th Centuries

MODERN OBSERVERS of medieval music usually make a sharp distinction between monophony and polyphony, between chant and its accretions, on the one hand, and organum, on the other. One must remember, however, that certainly in the first several centuries of Western Mebrstimmigkeit an "organized" melody, whether it was a chant or a paraliturgical versus, was not thought of as a musical opus of distinct stylistic specificity, but as an elaborated version of that melody. An Alleluia was an Alleluia, whether it was rendered simply as a plainchant, with tropes, or with a vox organalis. This is borne out by the fact that, at least to the mid thirteenth century, those writers who described polyphonic techniques dealt with them at the end of their treatises as an aspect of the main topic, which was chant, together with all its appropriate subtopics such as intervals, modes, and so on. Generally, the authors were interested not so much in composition as in modes of rendition.

Since I am concerned with certain aspects of musical thought in the twelfth and thirteenth centuries, I begin with a lengthy quotation from the treatise by the so-called De-La-Fage Anonymous of the twelfth century. Concluding his thirteenth chapter, "Since, therefore, we have at length, with God's help, fully expounded the proper manner of producing a chant, it behooves us to hasten to put together a guide for the properly constituted production of discant," he proceeds to the discussion of polyphony:

Discant must be set against chant as a counterpart, because it should not sound in unison with the chant, but higher and lower. For when the chant ascends, the discant must descend, and when the chant descends, the discant, on the other hand, must ascend, so as to be true to its nature. Thus, whoever of you wishes to put together (componere) a discant well and fittingly, you should strive always to be aware and secure in your knowledge of the consonances-to wit, fourth, fifth, and octave-as absolutely indispensable; for all discant that is made properly is put together with these, and if it is truly supposed to be a discant, it can in no way be constructed without them.
. . . In fact, either a discant will concord with a chant by means of any of these, namely fourth, fifth or octave, or it will form a unison with it; otherwise it absolutely will not be a discant. And one must beware with all care and the greatest caution that the discant have no more notes than the chant, because both must proceed with an equal number of notes. But if by chance, in order to have a more beautiful and elegant discant as well as for the greater pleasure of the listeners, you should want to mix in some organal passages at the end of a period or section at the last or penultimate syllable of the text, that is permissible, even though the nature of the thing does not allow its inclusion; for it is beyond dispute that discant is one thing and organum another. Thus, when you wish to ornament the end of a period or section, make sure that you don't all too frequently give the discant excessive melismatic passages, lest in the mistaken belief that you are making a discant you actually construct an organum and destroy the discant. . . .

Now, to make an organum it is necessary to know three things, that is, how it should be begun, by what method it should proceed, and in what manner it effects a cadence. It is equally necessary for the organizator to have knowledge and awareness of the consonances, because without them organum can in no way be put together by anybody. Thus you have to know that organum begins with one of the consonances or with a unison, i.e., on the same pitch as the chant. . . .

Discant and organum, however, are considered to differ in this way: while a discant corresponds to its cantus with an equal number of notes, which form consonances or unisons with it, an organum is joined with its cantus not note against note, but with an unlimited multiplicity and a kind of wondrous flexibility; it must begin, as has been said, with one of the consonances or in unison with the chant, and from there, by singing with much esprit, according as might seem appropriate and at the organizator's discretion, it must ascend above or descend below the chant, but at length it must place a division at an octave or unison. And indeed it may have a pause, which we call a clausa or clausula, only from the position of the octave or the unison, which, for the sake of clearer understanding, is demonstrated by the following organum: Be ne di ca mus Do mi no [the music is missing in the manuscripts]. See and recognize in this Benedicamus the way pauses are placed; also consider how it differs from discant and chant by its numerous notes and how, by ascending, descending and skittering about, it quickly gets away from the chant and quickly again glides back to the chant. Note, therefore, the pauses and the breathing spots, because in organum pauses and breathing spots have different effect. Now, pauses we call those halts which are made by the organizator at the unison or octave for the sake of resting or dividing the organum into segments. Breathing spots we call those interruptions that are made by the organizator when the organum [ascends or?] descends from the chant to the fourth, i.e., the diatesseron, or to the fifth, i.e., the diapente, and there, breathing a little bit, recovers his breath, that he might better proceed to the pause. ${ }^{1}$

[^95]Jerome of Moravia begins his short twenty-sixth chapter with the formulation, "Now, however, we must deal with plainchant, that is to say, according as it is subjoined to discant, and indeed with all species of said discant." This presently leads to his redaction of several treatises, of which the first and earliest is the premodal Discantus positio vulgaris. I quote the following passages from the older portion of the tract:

Now, a discant is a consonant counterpart [to chant]. . . . One must know what is mensurable and what beyond measurement; . . . Mensurable is that which is measured with the measure of one or more [two?] time units. Beyond measurement is what is measured with less than one time unit or more than two. . . . It must be noted, moreover, that all notes of the plainchant are long and beyond measure, because they contain the quantity of three time units. All notes of the discant, however, are measurable by means of the proper breve and the proper long. Hence, it follows that against any given note of the cantus firmus at least two notes-it goes without saying, a long and a short or something equivalent to them, such as four shorts or three with a short plica-must be presented; and furthermore they [i.e., the notes of the plainchant and of the discant] must arrive together on any one of the said three consonances. ${ }^{2}$

Though a fundamental novelty, the precise mensuration of two notes, generally more and less consonant, respectively, as long and short is still understood by the author as an attribute of a special way of singing cantus ecclesiasticus. It seems reasonable to infer from his exclusive concern with measured discant, including its notation, and with consonance, that the stylistic conditions of organum had re-

[^96]mained unchanged and were therefore in no need of comment. The question whether a style later designated as copula already existed would with all due caution best be answered in the negative.

My third and final witness is Johannes de Garlandia, whose treatise begins with the following three sentences:

Having dealt with plain music [i.e., monophony], which is described as unmeasurable, we now hasten to concern ourselves with measurable music, which is called organum in this treatise, since organum is the term generally used for all measurable music. Now, organum is both a species of all measurable music, and yet in a different way it is also a genus, as has been said above. It should be understood, therefore, that generally there are acknowledged to be three species of organum [i.e., polyphony], viz. discantus, copula, and organum, which will be dealt with in turn. ${ }^{3}$

Mensuration has by now become important enough that mensurabilis musica, equated with organum, is recognized as one of two genera, the other being immensurabilis musica, which is equated with plainchant. To our knowledge, both terms were first used by Garlandia. ${ }^{4}$ Unlike the author of the Discantus positio vulgaris, he promises to deal with organum as a species, subsuming it under the genus organum (mensurable music). The first eleven chapters, constituting roughly ninety-six percent of the treatise, deal with discant (and consonance), while most of the thirteenth and final chapter is devoted to organum duplum. ${ }^{5}$ Although the relevant sentences have been cited and translated before, ${ }^{6}$ another such attempt seems justified by Erich Reimer's new edition, published eight years ago.

The meaning of organum varies, according as it is used in a general or in a particular sense. Organum in general has been dealt with above; but now we must deal with it in its particular meaning. Organum in particular is practised in two ways: either by itself or with another part.

Organum by itself is said to be whatever is performed not in accordance with the regular, but in a sort of irregular way. "Regular way" is here taken to mean that in which discant is performed. The irregular way is so called to

[^97]differentiate it from the regular, because the longs and shorts of the latter are first and foremost taken in the proper way. In the irregular type, however, long and breve is [sic] not taken in that first manner [i.e., regular], but is understood from the context. . . . [The paragraph dealing with organum for three voices is omitted here.]

Longs and shorts in organum are distinguished as follows: through consonance; through a note symbol; by way of the penultimate. Hence the rule: everything that anywhere comes together by virtue of consonance is said to be long. Another rule: anything that is notated as long according to organal practice before a pause, that is to say, in lieu of a consonance, is said to be long. Another rule: whatever is recognized as preceding a long pause or a perfect consonance is said to be long. ${ }^{7}$

In 1949 Willi Apel, and three years later William Waite, addressed the problem of rhythm in organal passages in the Magnus liber. ${ }^{8}$ As is well known, Waite also dealt with this subject in the last chapter of his book, which was anticipated by his article. ${ }^{9}$ Both scholars based their interpretations on Coussemaker's flawed text, involving in one case the omission of the word non, ${ }^{10}$ in another the crucially misleading insertion of a comma. Apel understood Garlandia, who was the first to describe the rhythmic modes, as reporting non-modal rhythm (modus non rectus) for organal style, with longs and breves to be determined by the rule of consonance. Finding it "cryptic," however, he buttressed it with the rule of consonance given by Anonymous IV, although the latter's formulation differs significantly from Garlandia's. ${ }^{11}$ Waite, on the other hand, was firmly convinced of the applicability of first-mode rhythms to organal passages, regarding the rule of consonance as a supplementary tool to be used in cases of ambiguous notation. ${ }^{12}$

Most recently Fritz Reckow, who, as Sir Jack Westrup once so

[^98]nicely put it, "has a mind like a needle," ${ }^{13}$ has come to grips with these problems. On the basis of his careful reading of Garlandia he rightly asserted that "the ligature combinations of the organal melismas [have] no modal significance whatever" and that organum per se continues to have its "original freedom from modal rhythm."14 Like his two predecessors, he adduced the rule of consonance, following Apel in his interpretation "that the value of each duplum note derives its measurement from its consonance or dissonance [Konsonanzgrad] with the tenor." ${ }^{15} \mathrm{He}$ also followed Apel in essentially equating Garlandia's rule with that of Anonymous IV, repeatedly noting the contradiction between it and the irregular modes, which, according to the English author, were supposed to govern the rhythmic rendition of organal dupla. Despite several attempts he found himself unable to resolve the contradiction. And, in any case, he recognized that application of the rule produces musically indefensible results. ${ }^{16}$ He therefore concluded in his essay on organum that Garlandia's "rule of consonance probably should not be taken too literally" and that the singer of the duplum was entitled to a certain discretionary latitude ("Ermessensspielraum") in the rhythmic shaping of his part. ${ }^{17}$

For what I hope is a more accurate and less problematic understanding of Garlandia's rule it will be useful not to interpret him in the light of the writings of a later author, but to revert briefly to the De-La-Fage Anonymous. His definition of discant constitutes what in effect since the sixteenth century has come to be known as first-species counterpoint. His wording suggests the impulse toward cadential ornamentation in discant as the origin of organum. ${ }^{18}$ The performance

[^99]of the latter, he points out, is marked by "unlimited multiplicity and a kind of wondrous flexibility." Infinitus means "not finite, boundless, innumerable, not measurable"; one is justified in wondering how many more than one constitute an infinite multiplicity. In any case, the consequence of infinita multiplicitas for performance is flexibilitas; the technique is characterized by the words volvere, modulari, lascivire. In a word, the performance is free and evidently quite fast, rather in the manner of cadenzas.

This unbridled "non-species" counterpoint is articulated by rests, which must be preceded by a unison or an octave, and by breathing spots at the fourth and fifth below-and presumably above-the cantus firmus. As regards articulation, Johannes de Garlandia, writing about a hundred years later, nonetheless turns out to be not a great deal more informative, except that he injects the terms "long" and "short," which, he says, are to be understood from the context. His first rule, the rule of consonance, has always been understood to mean that any pitch in the duplum of an organal passage forming a consonance with a held note in the tenor is considered long. And this is, indeed, the impression conveyed by the relevant passage in the treatise by Anonymous IV. ${ }^{19}$ It seems, however, that both he and modern scholars have expanded or misunderstood Garlandia's rule, "everything that anywhere comes together by virtue of consonance (or: by force of the consonances) is said to be long." Taken together with the other two rules this is no more than a modernization of the earlier writer's comments on pauses and breathing spots. The twelfthcentury author had pointed out that, depending on specified contrapuntal circumstances, phrases were articulated by either pausationes or respirationes. Garlandia says, in effect, that any note of an organal passage consonantly coinciding with a note in the tenor is long; in most cases this would be the last note of a phrase, followed by a rest. In addition, he designates as long the last note of an organal phrase over a continuing note in the tenor (at least of any phrase whose last note is separated from the preceding ligature), and the penultimate note before what the De-La-Fage Anonymous had called a pausatio. (This probably refers to sectional endings, since he calls the subsequent rest long and, like his predecessor, identifies the final consonance as perfect.) All those notes are long; he does not say how long, since he does not define "short." He cannot, since, as he puts it, organal passages are performed "in an irregular way"; only in regular or proper mensuration is there precise measurement of long and short. ${ }^{20}$

[^100]But the implication is surely that, while in specified circumstances certain notes must be performed rather as if they were marked with a fermata or at least designated as tenuto, all other notes are simply shorter and presumably still quite fast.

In support of this reading of Garlandia's rule I call attention to his formulation ("omne id quod accidit"), containing the significant word accidit with its cadential implications (reminiscent of Guido's term occursus). There is, furthermore, the wording of the final sentence in the passage from the Discantus positio vulgaris cited above: "que etiam convenire debent in aliqua dictarum trium consonantiarum." ${ }^{21}$ Most important in this connection is Garlandia's own definition of consonance:

Some of the vertical intervals are called consonances, some dissonances. A consonance is said to exist when two pitches are conjoined at the same time in such a way that one pitch can be aurally compatible with the other. Dissonance is defined conversely. ${ }^{22}$

Consonance, then, is the result of the simultaneous articulation of two compatible pitches (both in discant and in organum). For the remainder of the time that a pitch is sustained in an organal tenor, the condition of organ point (or pedal point) obtains-what both Anonymous IV and the St.-Emmeram Anonymous referred to as burdo. ${ }^{23}$ It is an essential aspect of what medieval commentators might have called the "natura" of burdo that the rules of counterpoint are inapplicable (just as in pedal points of the seventeenth, eighteenth, and nineteenth centuries the strict rules of harmony are suspended). Therefore, the contrapuntal raison d'être for recta mensura does not exist in organum. Leoninian discant, on the other hand, demonstrates that species counterpoint and mensuration go together as much as do tonal harmony and meter. ${ }^{24}$

Thus, as regards organal rhythm, one cannot expect our Cartesian propensities to be satisfied by the "theorists." ${ }^{25}$ Apparently it contin-

[^101]ued to be viewed as essentially free and flexible. These writers do, however, evince a concept of phrases, since they present information about phrase endings. That all such phrases should have been linked together with scant regard for any sort of balance, order or design seems too capricious an assumption to be compatible with the artistic attitudes of the later twelfth century. Even the examples in the Vatican organum treatise ${ }^{26}$ already consist, often enough, of rather clearly defined components. ${ }^{27}$

Insights and conclusions concerning the music of the Magnus liber are inhibited by uncertainty as to the historical stages that our sources represent, not to mention our ignorance of Garlandia's copy or Leoninus's autograph. ${ }^{28}$ But not only in copulae, but in organum, i.e., passages not notated in the preserved sources to indicate rectus modus precisely, certain ligature constellations as well as slight ornamental differences between concordances often enable us to read organal phrases with a fair degree of confidence as to their probable rhythm; frequently such readings produce a rational phrase design, with the phrases quite often containing the equivalent of four beats each (Ex. I). It seems that the composer's (or the adapter's) intent must have included some latitude for the performer and his "agréments." ${ }^{29}$ But

## Example i

## Excerpts from organal passages



[^102]Example I, continued


Benedicamus No. 3


Benedicamus No. 3


O 29

even the three sources of the Magnus liber available to us all still contain passages whose notation is so unpatterned, so truly organal, as to make it inadvisable-indeed, virtually impossible-to transcribe them with unequivocal indication of durational values or of any definite time frame for the constituent phrases. To a limited extent variant transcriptions could be equally legitimate. The transition from such a passage to a copula and, in turn, to a discant section might be likened to the change from recitative to cavata and, in turn, to aria.

If the Magnus liber contained more or less numerous passages that were intended to be performed with rhythmic freedom and flexibility and were still sung-probably to a lesser degree-in some such manner in Garlandia's time, why did he include organum per se in a work that concerns mensurable music? To arrive at an answer to this question it may be useful to discuss four other ambiguities, which occur in his treatment of the sixth mode, the third mode, rests, and the copula.

In his fourth chapter, dealing with the ligature notation of rhythmic modes, Garlandia reports that sixth mode is written "in this way: a quaternaria with propriety and plica and thereafter two ligated notes and two with plica etc., as follows:"30


Fiat
The next chapter, which concerns the ligature notation of imperfect modes, presents practically identical specifications for imperfect sixth mode: "first a quaternaria with plica, thereafter with two and two with propriety and with plica, if it be reduced to first mode, as follows:" ${ }^{11}$


But, "if this mode is understood in the sense of reduction of [i.e., to] the second [mode], the rule is this: two ligated notes and two, two, etc., with propriety and perfect and with plica - all are called short, as is shown in this example:" 32

[^103]

Fiat
Since the affinity of sixth mode to second is not mentioned in the fourth chapter, which deals with the normal and traditional perfect modes, it may be fair to assume that early modal theory viewed sixth mode only as an elaborated or ornamented first mode (plicated quaternaria followed by plicated binariae, in lieu of ternaria followed by binariae) ${ }^{33}$ There was, however, a third way of notating sixth mode, which Garlandia explains immediately after the example in chapter four (see above): "Another rule concerning the same, but not approved by this teaching, though thoroughly approved by the example found in the triplum of Alleluia Posui adiutorium, i.e., a quaternaria with propriety and thereafter three and three and three with propriety etc., and this is the example that appears in the above-mentioned Alleluia:" ${ }^{34}$


Even though he here describes this notation of sixth mode as irregular, he had used it without any apology to give examples of both the perfect and the imperfect sixth mode in his first chapter. More significantly, five of the seven examples of sixth mode given in the eleventh chapter are notated in the theoretically disapproved way. ${ }^{35}$ Though frowned upon, it was apparently so conventional a way of notating sixth mode that Garlandia used it for more than half of his thirteen examples. A cursory glance at the $W_{1}$ version of the Magnus liber shows that fast (short-note) passages in premodal rhythmic polyphony were often written in this manner; several of them appear in the more modern (plicated first-mode) notation in one or both of the other sources. Only when these rhythms were integrated into the newly

[^104]codified modal system, ${ }^{36}$ therefore, did they come to be understood as related to either first or second mode, and only then could the effort have been made to change their notation accordingly.
${ }^{36}$ That the modal system was fully developed by c. 1180 has been asserted repeatedly, most recently by Rudolf Flotzinger ("Zur Frage der Modalrhythmik als AntikeRezeption," Arcbiv für Musikwissenschaft, XXIX (1972), p. 204). No evidence has ever been presented to support this view, which I have tried to demonstrate as untenable; cf. Ernest H. Sanders, "Duple Rhythm and Alternate Third Mode in the 13th Century," this Journal, XV (1962), pp. 283-4, and Sanders, "Perotin's Oeuvre and Dates," pp. 243 ff . In the latter essay I suggested that it was in the years around 1210 , when concentrating on the composition of clausulae, that Perotinus must have experimented with the increasing variety of rhythm that came to be codified into the modal system. In his review of Music from the Middle Ages to the Renaissance, ed. Frederick W. Sternfeld, in The Musical Quarterly, LX (1974), pp. 646-54, Alejandro Planchart claimed "that the Magnus liber already shows a rhythmic system . . . which includes what would later be known as the first, second, fifth, and sixth modes" (p. 648). The presence in the Magnus liber of rhythms later categorized as belonging to the first, fifth, and sixth modes is evident. It is important to stress, however, that, to my knowledge, the $W_{1}$ version of the Magnus liber contains no second-mode rhythms. The two instances that might be cited strike me as very doubtful: the settings of the first and of the last two syllables of the verse of O 2, and of In Bethleem in M 8, look like second mode at the beginning, but like first mode at the end, especially in the tenor. I suggest that they are premodal upbeat phrases (see Ex. 2).
*Example 2
$\mathrm{O}_{2}$, fol. $18^{\mathrm{r}}\left(W_{\nu}\right)$


In the case of the third mode Reimer has pointed out that Garlandia notated it in the traditional modal manner, even though he therefore used the perfect ternary ligature with propriety in conflict with the exclusive meaning-long-breve-long-it had in his notational system. In contrast to his treatment of the sixth mode, he nowhere acknowledged this inconsistency. ${ }^{37}$ Apparently the pattern 1, 3, 3, etc., which had originally stood for llbllbl, etc., ${ }^{38}$ was simply carried along into the modal system, even though its rhythms became those known since that time as third mode.

The stray bits of evidence suggest how this may have come about. In describing discant, the author of the Discantus positio vulgaris has no rules for ligatures containing more than four notes: "Should there, however, be more than four notes, then they are not really subject to rules, but are performed at pleasure; these pertain particularly to organum and conductus." ${ }^{39}$

Garlandia's rules are considerably more complex: "[In] every ligature written perfect and with propriety the penultimate is said to be short and the last long. Should these be preceded by one or more notes [within the ligature], they are all taken for one long." In spite of the word "all" (omnes) this probably refers to ligatures of three, four or five notes, since he also gives the following rule: "The rule is that two or three or four breves never take the place of a breve where they can take the place of a long., ${ }^{40}$ This presumably means that a ligature or coniunctura of six or more notes should, where possible, be spread over more than one beat. A sentence in that part of chapter 1 dealing with the term ultra mensuram (beyond measurement) seems to convey the same meaning: "Should there be a multitude of breves somewhere, we must always contrive to make them equivalent to long notes." ${ }^{41}$ This is further explained by the subsequent rule: "Should there be a multitude of breves somewhere, the closer a breve is to the end, the longer it must be rendered in performance." ${ }^{42}$ This may be exemplified as follows:


[^105]Reimer has argued that Garlandia's expression multitudo brevium in chapter 1 must refer to the pair of breves in the third and fourth modes, since he gave his definitions of ultra mensuram right after he had set up the category of those modes he called ultramensurabiles (third, fourth, and fifth). ${ }^{43}$ Yet, it seems quite possible to understand the latter as pegs on which he hung the subsequent rules and definitions, just as in the preceding paragraph of the chapter his mention of the other modal category may be seen as having given rise to explanations of such terms as recta mensura, tempus, and vox amissa, not all necessarily essential. Moreover, Dr. Reimer was forced to interpret Garlandia's use of ultra in a purely temporal sense (longer than), rather than in the actual terminological context, i.e., ultra mensuram, which the author of the Discantus positio vulgaris had already defined as less than one time unit or more than two. (Reimer therefore had to assume that this definition is later than Garlandia's.) In addition, we would have to disregard Garlandia's plural (longis), since two breves can only be equivalent to one long. (It is impossible that he should have thought of different multitudes in the two sentences.) Finally, one wonders why Garlandia would have written "si multitudo brevium fuerit in aliquo loco," the more so as a few sentences earlier he had defined the third mode as consisting of "una longa et duabus brevibus et altera longa" and in the sixth chapter used multitudo brevium for what Anonymous IV called currentes (coniunctura in modern terminology). Instead of designating two as a crowd, why not simply say "duarum brevium inter duas longas ultra mensuram positarum secunda debet longior esse" or, even more straightforwardly, ". . . prima est unius temporis, reliqua vero duorum," as Anonymous VII put it? Admittedly, the latter preceded that rule with this sentence: "In this third mode the following rule is given: when we have a multitude of short notes, that which comes closer to the end is said to be rendered longer in performance." ${ }^{44}$

This need not, however, be seen as proof of Reimer's assertion. It seems that a rule that Garlandia apparently formulated to apply to currentes was misunderstood and applied to the third and fourth modes, precisely because he had raised the concept of ultra mensuram which it concerns in the context of the modi ultramensurabiles. How did this misunderstanding come about? One may reasonably hypothesize that it arose in consequence of the invention of the rhythms of the second mode and the resultant setting up of the modal system. To

[^106]identify two fundamental rhythmic patterns and their notation as first and second mode was an obvious procedure. On the other hand, the Perotinian pattern llbllbl (with the first long of each pair of longs being one third longer than the second) would certainly have seemed troublesome to accommodate within a rational system, especially in the context of musica cum littera, i.e., the motet. ${ }^{45}$ But no objection of irrationality could be raised against the labeling of this pattern as Lbblbbl. ${ }^{46}$ Except for the sentence in the eleventh chapter quoted below, Garlandia's treatise could be seen to reflect that stage in the evolution of the third mode. To be sure, there could be and there evidently were objections to the designation of a value as a breve that had been known as a recta longa. ${ }^{47}$ If, however, the values of the two notes between the two ternary longs were reversed, they could be thought of as two breves, of which the second was twice as long as the first. In fact, they would have had to be considered as two breves, since a long before a long had always had a ternary value. That a rhythmic pattern of that sort had become attractive to composers is proved by the presumably prior emergence of the second mode; a purely theoretical fiat seems unthinkable. (Perhaps the situation demonstrated by the example on p. 277 produced awareness of the new rhythm.) The notation of the new third mode, however, must have been something of an embarrassment for Garlandia, since his system did not provide for a ternaria specifically shaped to designate two breves and a long.

These considerations, complicated though they may be, would help to explain the formulation in the Paris version of the first chapter of Garlandia's treatise.

The third mode consists of a long and two breves; and two breves are equivalent to a long, and a long before a long has the value of a long and a breve, and

[^107]thus of three time units. Hence, a long before two breves has the value of three time units, and thus of a long and a breve or a breve and a long. Moreover, two breves are equivalent to a long; therefore, should they be placed before a long, they have the value of three time units, thus of a long and a breve or vice-versa. Now, there is the rule: should there be numerous breves in the oblique (divergent) modes [modi obliqui, i.e., the third, fourth and fifth modes], the one that is set closer to the end must be rendered longer; therefore those two amount to a breve and a long and not to a long and a breve. Wherefore the third and fourth modes are preferably reduced to the second, rather than to the first. ${ }^{48}$

They may also explain Garlandia's justification of the contrapuntal combination of the first and third modes in his endlessly elaborate eleventh chapter. This is possible, he says, "because the first mode is in its appropriate arrangement [of ligatures] equivalent to the sixth, and the sixth to the third by way of the second, and thus the first is taken against the third, but this is done (dicitur) not properly, but by means of [this] reduction." ${ }^{49}$ The last clause is particularly significant as a reflection of the conversion of the older to the newer third mode, as is also the absence of any such construct to serve as apologia for his listing of the contrapuntal combination of the first and second modes, ${ }^{50}$ which were traditionally incompatible.

The notational inconsistency of the third mode was recognized by Anonymous IV and the St.-Emmeram Anonymous. ${ }^{51}$ Understandably, there seem to have been arguments about the proper rendition of its ligature pattern up to Franco's time. He eliminated all ambiguities by instituting a system of ligatures that no longer reflected modal tradition, while at the same time reordering the modal system so as to classify the older Perotinian rhythms as belonging to the first mode. ${ }^{52}$ Only when the traditions of the modal system had begun to lose their conceptual force did it become possible to reassociate the older rhythms with the environment in which they had arisen in premodal times, and Franco's logical mind took the necessary consequences.

The first to treat rests extensively was Garlandia, dividing his discussion into two chapters, of which one (7) deals with the concept of pausa, the other (8) with the notation of various pausae. Actually, how-

[^108]ever, it turns out that the author found himself unable to exclude from chapter 7 certain notational features that cannot be reconciled with those he introduced in the next chapter. The significance of these factors is that Garlandia's methodological division of his explication of rests into two chapters implicitly seems also to reflect different historical stages, which may be associated with the terms divisio and pausa, respectively. Different durational valuations of rests are defined only in connection with the discussion of the different ways of writing such rests (chapter 8). The earlier chapter, however, deals with pausae in modal contexts, the salient point being the equivalence of a rest to the penultimate note preceding it, whether the mode be perfect or imperfect. In contrast to chapter 8 , rests are here treated as undifferentiated graphically.

But even chapter 7 seems to reflect two evolutionary stages. In his discussion of composite or double rests in a perfect mode, Garlandia observes that not only the two divisiones, which he calls tractus, but also the space between them must be taken to represent the mensural values that compose the silence. His meaning may be illustrated as follows:


In the case of imperfect double rests, however, only the two tractus are to be counted as rests. This case can be represented similarly:


Two considerations compel the conclusion that Garlandia's cannot have been the original conception of this sort of rest. That nothing (empty space) should signify something seems as impossible a notion in this case as it surely was two hundred years earlier when clefs were invented to signify lines, not the spaces between them. The rationale for a composer's adoption of such a procedure would be unfathomable and unthinkable. Secondly, both the practical and the theoretical sources, as well as the terminology, make it clear that perfect modes and rests preceded imperfect modes and rests. ${ }^{53}$ That the more artificial reading of rests should from the beginning have applied to the

[^109]less complex and less advanced "perfect" situation seems improbable and irrational.

What Johannes de Garlandia called a rest was originally a line of demarcation separating two musical entities, mostly phrases (ordines). ${ }^{54}$ By the time of Leoninus it ordinarily assumed the mensural value of the penultimate note.


With the recognition of silence as an intrinsic component of polyphony, equivalent to sound as an element of counterpoint, an ordo might be extended by silence, say, from second to third:


In that case the second tractus would simply represent the withholding of the sound (amissio soni)-the binary ligature-normally necessary to raise the "ordinal number" from two to three. In other words, the constellation of a ternaria followed by a binaria and a tractus represents second ordo, while a constellation of a ternaria followed by a binaria and two tractus represents third ordo, with the ordinal increase effected not by sound, but by silence.

Garlandia's view seems to be an early instance of the change from thinking in modal configurations to thinking in discrete mensural units. In order to account for the circumstance that a perfect double rest in fact signifies the omission of the sound of a breve plus a long plus a breve, he posits that the middle one of those three values is graphically unstated, but implied by the empty space between the two tractus. This unique attribution of intrinsic significance to the inevitable space between two symbols can be explained as a reinterpretation of a vanishing conceptual tradition.

There is at least one case in the practical sources that reflects this change in thinking. The original double divisiones of fifth-mode ordines in the second part of the tenor of the Perotinian clausula Mors:


[^110]are written as triple divisiones in the "modal" manuscript $M a$ (like the triple rests in the later motet versions in such sources as $M o$ and $B a)$. ${ }^{55}$ A mensural view of this pattern would be three longs plus three long rests plus one long plus one long rest. A modal view presumably would be: a first ordo of fifth mode, extended by amissio soni to second ordo, plus one single long plus rest; or a first ordo of fifth mode extended by a succession of amissio soni and one sonus to third ordo.

Garlandia's short twelfth chapter, dealing with the copula, would seem to contain another significant instance of his efforts to homogenize different teachings.

Having discussed discant we must now discuss copula, which is very useful for discant, because a discant is never known completely except through the intervention of a copula [or: because one does not have complete expertise in discant except by means of copula]. Hence, copula is said to be what is between discant and organum. Copula is defined in another way as follows: copula is what is performed in the regular way (recto modo, i.e., properly measured rhythm) over a coextensive single pitch. In another way it is described thus: copula is that wherever a multitude of note symbols occurs; as it is understood here, a note symbol is that wherever there occurs a multitude of lines [i.e., those connecting lines making groups of notes into ligatures]. And that particular section is divided into two equal parts. Hence, its first and second parts are called antecedent and consequent, and each contains a multitude of lines. Hence, a line [like that?] occurs wherever there occurs a multitude of intervals of one kind, such as unisons or whole tones, in accordance with the predetermined number of their incidences and with the proper arrangement [of ligatures]. This should do with respect to the copula. ${ }^{56}$

Fritz Reckow's insistence on periodicity as an essential characteristic of the copula ${ }^{57}$ seems to be an unnecessarily rigid interpretation of the last several sentences of the chapter, which, in any case, are hardly models of clarity. Reimer hesitated to accept them as genuine because ( I ) unlike the rest of the short chapter they were not adopted or adapted by Garlandia's successors and (2) their content was irrelevant to and inconsistent with the musical thinking and methodological approach in the rest of the treatise. ${ }^{58}$ Once again, however, it seems that Garlandia has forged together two disparate aspects of a particular musical technique, of which the first-modus rectus in the duplum

[^111]over a sustained note in the tenor-is the most basic, while the sec-ond-periodicity - may have been added to account for another view, which might be regarded as less fundamental and perhaps later.

Dr. Reckow, in order to bolster his argument that periodicity is the essence of the copula, contends that what Garlandia terms organum cum alio (organum for three voices) would doubtless have been called "copula" if all that was involved was sustained notes in the tenor and rhythmic precision in the upper voices. ${ }^{59}$ This argument seems untenable for three reasons: (1) For Garlandia the term organum cum alio denotes primarily a particular category of polyphony, and the name of the category as a whole is organum, regardless of the discant style of the upper voices that must account for his use of the phrase organum quantum ad discantum; (2) there is in these compositions nothing "(medium) inter discantum et organum," there being no mensura non recta; (3) even though periodicity and Korrespondenzmelodik are very common-one might nearly say, endemic-in organum cum alio, no one ever called it copula. On the other hand, passages in the $W_{1}$ version of the Magnus liber that simply have modus rectus over sustained tenor notes are more common than those that, in addition, consist of corresponding phrase components, quite apart from the fact, stated parenthetically by Reckow himself, ${ }^{60}$ that in those cases that do exhibit periodicity there often are successions of more than two phrase components analogous in melodic content and equal in length. It seems inappropriate, therefore, to make phrase structure consisting of antecedent and consequent an essential (much less the essential) ingredient of the definition of copula, the more so as Garlandia appears to have treated it as something of an afterthought. It is particularly significant in this connection that the examples of copulae with periodicity cited by Reckow ${ }^{61}$ are all relatively late.

Finally, Reckow's interpretation of the first two sentences of Garlandia's twelfth chapter ${ }^{62}$ seems wrong. They are said to mean that discant polyphony is not really first-rate, unless it also displays the sort of periodicity Reckow considers essential for the copula. Garlandia's treatise, however, appears to be addressing singers and choirmasters more than composers; his frequent use of "profertur" in the explanations of discantus, copula, and organum in speciali may be cited in support of this statement. The first two sentences of the twelfth chapter presumably mean that for performers the shift from the

[^112]rhythmic freedom of organum to the modal strictness of discantus or vice versa is greatly facilitated by the intervention of a copula. More specifically, they could also be understood to imply that, in addition to strictly modal notation, discant exhibits remnants of rhythmically significant premodal configurations characteristic of copula passages, where, he says in the next sentence, there is rectus modus, quite possibly meaning that it consists of properly but not yet always modally differentiated longs and breves. Finally, they may be taken to mean that melodic thrust and phrase structure may often continue from discant into copula. These procedures are easily documented by reference to the various versions of the Magnus liber. Composers may have adopted periodicity in discantus from copula models, as Reckow suggests, though the necessity of such a process is debatable. But in any case, Garlandia's sentence describing the formal design of copulae is so far removed from his lead sentences as to make an effort to relate them to one another seem forced. His wording suggests the probability that he is reporting two interpretive and didactic strands.

Reimer has described Garlandia's treatise as "the final codification" of the thinking that had evolved in his predecessors, but also as "the immediate precursor of Franconian notation." ${ }^{63} \mathrm{He}$ based this generalization on the author's largely successful modernization of traditional thinking. But the Janus face of Garlandia is even more tellingly revealed by the few little ambiguities and inconsistencies lurking in the treatise. It is in this context that not only his treatment of sixth mode, third mode, rests, and copula must be understood, but also his inclusion of organum per se in a treatise on measured music, even though proper mensuration is inapplicable to it. In his explanation of the articulation of organum the De-La-Fage Anonymous had described pauses and breathing spots without trying to define the cadential retardation of the rapid melismatic flow of the vox organalis. His use of the word mora ("halt" or "lingering") is as indefinite as that of the termflexibilitas. Only a mensural consciousness would view that as a phenomenon requiring comment. Garlandia, in his effort to stamp all polyphony as mensurabilis musica, elevated such retardations in organal style to the level of mensurability, though he had to resort to such an oxymoron as mensura non recta. ${ }^{64}$

[^113]Unlike his successors, however, he left the organal tradition intact. ${ }^{65}$ Anonymous IV attempted to strait-jacket organum with an elaborate system of irregular modes as well as a seventh mode. The growing hegemony of the clausula and especially of the motet with its declamatory individualization of nearly every note had caused the flow of music to be retarded and had engendered new perceptual habits. They prompted Anonymous IV's bewildering Procrustean operation, his elaborate reformulation of Garlandia's rule of consonance, as well as the sort of thinking reflected in Franco's recommendation that the performer of an organal tenor should either interrupt or feign consonance when his part, according to Franco's rules, would otherwise form a long dissonance with the duplum.

Thus, clausula and motet robbed chant and its elaborations of primacy in the thinking of French musicians and caused the increasing corrosion of organum as a living tradition. An inevitable last step in this evolution was the recognition of musical genres as principal categories, such as motet, cantilena, conductus-and organum or organum purum (Odington's "genus antiquissimum"). ${ }^{66}$ In this respect, too, Garlandia's novel classification of music into mensurable polyphony and immensurable monophony represents a significant turning point.

This paper is a somewhat expanded version of one delivered at the Minneapolis meeting of the American Musicological Society in October 1978. Several of its ideas were generated in a Ph.D. Seminar at Columbia University in the Spring of 1978 ; I am indebted to its members, especially Mr. James Bergin and Mr. Peter Lefferts.

[^114]
## SINE LITTERA AND CUM LITTERA IN MEDIEVAL POLYPHONY

TThe coordination of text and music has often presented transcribers and editors of Medieval polyphony with uncomfortable problems. Indications of the dilemmas that confronted them are manifest in one way or anocher in published articles and editions. The following examination of primary evidence is put forth as an endeavor to clarify the issue.

The earliest description of mensuration in polyphony, concained in the first part of the Discantus positio vulgaris, associates it with a system of melismatic notation. ${ }^{1}$ The relevant sentences in the treatise establish (i) that rhythmic meaning is conveyed by ligatures; (2) that these constellations are characteristic of the upper voice (duplum) in the discant settings of chant melismas in organa, with each note of a melisma sustaining a standard of two successive notes in the duplum, i.e., a long and a short (2:1), the only mensurable units; (3) that each odd-numbered note of the discant voice (duplum) is generally consonant with the coincident note of the cantus firmus (the term odd-numbered being used even if more than one note intervenes between two contrapuntal intervals); and (4) that the incervening nores can be and usually are more dissonant. The first reper-

[^115]toire to exhibit many such passages is the Magnus liber organi, whose author was Leoninus.

This book, says the English author known as Anonymous IV, "fuit in usu usque ad tempus Perotini Magni, qui abbreviavit eundem et fecit clausulas sive puncta plurima meliora, quoniam optimus discantor erat." ${ }^{\prime 2}$ In editing and modernizing the Magnus liber organi Perotinus gave greater preponderance to discant style, thus tightening and abbreviating the Leoninian originals, including many of their organal passages. ${ }^{3}$ The rapid consecution of syllables, inevitably becoming more frequent in the process, necessitated adjustments in the melismatic ligature notation of discant, which on the whole had not been tampered with till * then. ${ }^{4}$ The 196 snippers of discant polyphony collected in the fourth and fifth
2. Fricz Reckow, Der Mwriktraktat des Anonymus 4, Beirräge zum Archiv für Musikwissenschaft, 4 (1967), 1:46.
3. In a recent arricle ("The Problem of Chronology in the Transmission of Otganum Duplum," Music in Medieval and Early Modern Enrope, ed. Iain Fenlon [Cambridge, 1981], 1: 369-99), Edward Roesner has set forth arguments suggesting the inadequacy of the cradicional view chat the known versions of the Magmus liber organi attest to an evolution from preponderandly organal style to its diminution in favor of discant style. One leg of his argument stands on his underseanding of the cerm abbreviavis as "made a redaction" (p. 378). But abbreviare was never used in this sense. Ies known Medieval meanings are: to abbreviare, to shoren, to reduce, to abridge, $\mathbf{o}$ wrise down or record, the latree in the sense of an original inditing or inscribing or rendering of a brief account (see Mittellateiniscbes) Wönerbuch [1967], 1: col. 19; The Dictionary of Medirval Latin from Britisb Sources [1975], fasc. 1: 3). Hence, any Medieval redaction described as abbreviatio is, in fact, a reducrion. And Roesner's claim chat "Anonymous IV uses abbreviatio in the sense of 'a writing, treatise' " rests on a passage in which the author of the treatise merely presents his reader with the unsurprising information that verbal instruction became more concise as nocational symbols became more precise.

More crucial to the issue are Roesner's numerous stylistic interpretations and hypocheses in support of his statement chat "Ludwig's hypochesis is too simple" (p. 369). A comparison among the three versions of organa preserved in the manuscripts commonly referred to as $W_{1}, F$, and $W_{2}$ (see $n$, 3 below) reveals three major categories of change in certain passages: ( 1 ) discant over grouped (unpatterned) long nores in the tenor as opposed to discant over a modally patterned renor, (2) discant over grouped longs in the tenor as opposed to discant over grouped double longs; ( 3 ) organal setting versus discant setting, the latter over grouped longs, grouped double longs, or thythmic patterns. As to ( t , for obvious reasons no argument has ever been presented to the effert that irregular grouping of nores in the tenor should be regarded as more progressive than their rhythmic patterning. Patterned tenoss are extremely rare in the $W_{1}$ version of the Magnus liber organi; they are quire a bit more common in $\mathrm{W}_{2}$ and especially in $\mathrm{F}-\mathrm{g}$ good many of them taking the place of more old-fashioned discant seetings in $W_{1}$. Since the former often set more than one scatement of the renor, the more modern versions frequendy turn our to be longer than the comparable passages in $W_{1}$. Relarively few cases exemplify category (2). When the three manuscripes do not agree in the use of longs versus double longs in the setring of identical tenor passages, the double longs are always in F and/or $\mathrm{W}_{2}$, such seerings cherefore being twice as long as the ochers. Chains of double longs are very rare in $W_{1}$ (see Emest H. Sanders, "The Medieval Motet," Gattuagen der Musik in Einzeldarstellwngen: Gedenksbrifi Leo Scbrade [Bern, 1973], 1, n. 14). The cases belonging to category (3) are by far the most numerous. On the one hand, chere are very few instances of discant setting in $W_{1}$ versus organal setting in one or boch of the ocher sources (e.g., two passages in $\mathrm{O}_{29}$ and one in $\mathrm{MI}_{1}$ ), thus demonstrating the probability that $\mathrm{W}_{1}$ cannor be the Leoninian original. And on the ocher hand, examples of the reverse sinuation are very numerous, with discant sections over unpatremed tenors (longs or double longs) abour twice as frequent as chose over patremed tenors. Wich few exceptions, the sertings of these passages in $E$ and $W_{2}$ are significandly shorter than those in $W_{1}$. All in all, then, the versions * of che Magwus liber orgawi in F and $\mathrm{W}_{2}$ certainly contain many abbreviations in comparison with $\mathrm{W}_{1}$. 4. It is well known chat before Johannes de Garlandia's time no syseem of differenciared single nores exiseed that could denote durations. The need for such 2 system arose only with the corally syllabic genre of the morer. For all the evidence conceming the priority of melismatic, as against syllabic, rhythmic notation, see Erich Reimer, Jobannes de Garlandia: De mensurabili musica, Beimage zum Archiv für Musikwissenschaft, in (1972), 2: 52-33.

EXAMPLE I

b(1). F, No. 2354 (fol. 180v) b(2). W W, fol. 18 (14)

c(1). F, No. 2359 (fol. 18ov)
c(2). $W_{1}$, fol. $40 \mathrm{~V}(34 \mathrm{v})$

d(1). F, No. 2412 (fol. 182v)
d(2). $W_{1}$, fol. $18(14) \quad$ d(3). $W_{1}$, fol. $20 v(16 v)$

d(6). $W_{1}$, fol. $27 v(23 v)$
d(4). $W_{1}$, fol. 39 v (33v)
d(5). $W_{1}$, fol. 47 (4I)
$=46 \mathrm{v}(40 \mathrm{v})$

e(I). F, No. 2371 (fol. 18 I)

e(2). F, No. 2329 (fol. 179 v)

groups of the fifth fascicle of MS F,' most of which are extremely concise alternatives to long organal passages in the Magnus liber organi and were therefore presumably meant to serve as abbreviate substirutes, ${ }^{6}$ for the first time require and exhibit a notation systematically adapted to incidences of syllabic change. The notation of such passages, with its profuse syllable strokes (rendered, for purposes of demonstration only, as apostrophes in the examples) as well as its unusual ligations and plications arising from frequent syllable changes, can be easily shown to result from adjustments to actual or at least to conceptual melismatic models (Example I).?
5. For manuscript symbols as well as numerations of organa, clausulae, ecc., see Rudolf Floczinger, Der Discanoussatz im Magnus Liber and stiner Narbfolge, Wiener Musikwissenschafliche Beirrige, 8 (1969).
6. They should nor be referred to as clausulae, since, with few significant exceptions, they are nor sections consciruting defined and formed encicies (see Sanders, "The Question of Perocin's Oeuvre and Dates," Fassebbrift Walter Wiora [Kassel, 1967], 242f.). Roesner (p. 377f.) has expressed strong doubes chat they were writen eo abbreviace organa. But Anonymous IV, in idenifying Perocinus as opsimms discansor, credited him with rwo distinct acivicies: he shortened the Magnus liber organi, and he composed a grear many clausuLae. (As to their probable functions, see Sanders, "Medieval Morer," sosff.) For evidence that many (all) of the snippecs in the fourch and fifth groups of the fifth fascicle of $F$ are likely to have been composed by Perotinus for the purpose of abbreviation (and modernization) of Leoninus's organa, see Sanders, "Medieval Mocet," n. 14, and Frederick W. Stemfeld, ed., A History of Wastern Mwsic, vol. I, Mwric from the Middhe Ages to sbe Renaissance (London, 1973): 107. Most of them link up quire well with the musical environment for which they seem so have been intended. In any case, for what ocher purpose could they possibly have been designed? That only relatively few of chem appear in our sources of the Magnus liber organi can be ascribed to the disappearance of sources, the rapidy increasing vogue for pattemed tenors, the fact chat the subscitures could easily be learned and incorporated from a separate collection, and so on. In any event, in view of che evidence presented here and in $n .3$ above, the $W_{1}$ version muse be regarded as scylistically ancerior to $F$ and $W_{2}$.
7. It therefore turns our that the encire collecrion scill exhibiss only premodal rhythms, inasmuch as it coneains no second-mode patterns (see Sanders, "Question of Perocin's Oeuvre," 244). The term premodally trachaic, which I have used on occasion to describe che shythm prevailing in discant sections of early Norre Danne organa, is noc really appropriate, since it was only dhe moret's first mode that made those thythms crochaic (see Sanders, "Medieval Moree," s12, and Sreenfeld, 114). In melismatic discant such thythms are more properly called premodally iambic (i.e., nox in the sense of second mode, but closer to the original Greek meaning). It is in the nature of this conception of thythm that the first duplum nore of some discant passages is writen occasionally as a wirga, rather than as the first nore of a ligature, even though no repeaced nooes are involved; ser for inseance, $\mathrm{Ex} . \operatorname{la}(2)$ and che last phrase of Ex .6 , boch onken from $\mathbf{w}_{1}$, where such coses scill occur more frequendy chan in the ocher sources. The two nocations of Ex. 7 reveal a relared aspect of this situation.

The exisrence of the "original" ("alrernare") third mode invalidares all the examples of mixed thythmic modes given by Gordon A. Anderson, with the exception of those in the La Clayette manuscript (ser "Johannes de Garlandia and the Simultaneous Use of Mixed Rhythmic Modes," Miscellanea Mwsicologica 8 [1975]: 11-27, specifically 20-26). It cannor be emphasized too strongly that no evidence exists for the rise of the system of thythmic modes prior to the time when clausulae and some of the organa tripla were written; see Sanders, "Duple Rhythm and Atrernare Third Mode in the I 3ch Cennury," Journal of ibe American Musicological Society is (1962): 283. In that article I concluded that originally the first of the two breves in the third-mode patrern was doubled (pp.269-71 and 278-85). This conclusion is strengthened further by a passage in the creatise of "Dietricus," regrectably overlooked by me at the cime. After enurnerating and defining the six modes, this theorise adds, "Lsi camen modi frequenter ad invicem miscentur, fit enim mucacio de primo in retrium vel in quintum er sic de aliis . .." (see Hans Müller, Eine Abhandlung wher Mensuralmusik [Leipzig, 1886], 5). That the second mode, in yielding to copious ornamentation, often transmuted iself into the sixch has long been recognized (the second and sixch modes being "the others," since the author reported the fourth mode as not in usu). But his failure co associate the third mode with the second is boch unique and significant. In his subsequent discussion of ligarures, "Diecricus" instructs his reader (ibid., 6) that the nores of any ternary ligature have to be performed as long, short, and long: "nisi forte caudara precedat tres ligatas . . . er runc de rribus ligatis prime due sunt breves. . .."

Similar rules are given by the author of the Discansws posisio vulgaris (Cserba, 190) and, in a more com-

Only one of these substitutes exhibits, as it proceeds, melismatic notation at a point of change in syllables (Example 2). Presumably, the phrase should have been written as in Example 3. This disregard of the proprieties of the syllabically adjusted notation, while singular within any of the short substitutes, is encountered often at the close and occasionally at the end of subsections (Example 4).

EXAMPLE 2. F, No. 2394 (fol. 182)


EXAMPLE 3

Particularly significant is the notation of a concluding formula that was used almost constantly, at least in the substitutes. The two notations given in Examples 5 a and 5 b always apply to melismatic and syllabic contexts respectively. The melismatic notation in Example 5 c is favored in $\mathrm{W}_{1}$ (where the formula is far less frequent than in $F$ ); for example, at the end of $\mathrm{M}_{13}$, fol. 3 IV (27v)-its notations in F and $\mathrm{W}_{2}$ are as in Example ga-and at the end of the respond of M 37, fol. 41 (35). This notation occurs occasionally in F; for example, at the end of the substitute, No. 2439 (fol. 183) and before et ponam in M 54 , fol. 14 Iv . While a scalar descent in breves was easily written with coniuncturae, scalar ascents produced what William Waite, whose standard was modal notation, called irregularities, since an ascending quaternaria was awkward to write. ${ }^{8}$

[^116]Examples 2, 4, and 5b represent an exceedingly common situation in Nocre Dame polyphony prior to the rise of the motet-chat is, the appearance after a syllable stroke of a two-note ligature (binaria), the constituent notes of which are respectively dissonant and consonant with its coordinate tenor note. ${ }^{9}$ The widespread modern interpretation of such ligatures as isolated second-mode events forming appoggiaturas not only bespeaks an "optical illusion," ${ }^{10}$ but also produces a jarring anachronism of style. Manfred Bukofzer cited one instance (from M 53) to show that Waite himself, in whose pioneering edition such binariae ordinarily appear as appoggiaruras with second-mode or occasionally fifthmode rhythm, felt compelled to interpret them as components of a rhychmically homogeneous melismatic chain, regardless of any syllable change. A good many more such examples can be cired. ${ }^{11}$ On the other hand, cases in which Waire ler "oprical illusion" prevail are far more numerous. ${ }^{12}$ Especially revealing is a passage in O 13. Waite's transcription (Example 6) obscures the sequential design
example 6. Waite, 30

by misinterpreting the stroke as a long rest; see (Joban)nes e(rat). But one of the cardinal rules in this notation is that a stroke signifying a change of syllable rarely has a mensural meaning as well. ${ }^{13}$ Even in purely melismatic contexts a stroke does not necessarily denote a rest; at times it can be nothing more than a subordinate phrase mark, a function lacking mensural significance, as in the melisma on (acces)se(runt) in M 17 (Examples 7a, 7b, 7c). ${ }^{14}$ The nocation of both voices of this passage in MS F (see Examples 7 a [also Plates I and II], 7 b ,
9. Theodore Karp has called attencion to the problem of the incerpretation of this "cadencial binaria" (see "Se. Martial and Santiago da Composcela: An Analytical Speculacion," Asta Musicologica 39 [1967]: 152f.). 10. Manfred F. Bukofzer, Review of Waice, Tbe Rbysbm of Twelfib-Contury Polyphony, in Notes 12 (195s): 236.
11. See especially the discant passages mentioned in Karp, n. 16.
12. Waite, p. 6: de ce(lis) in $\mathrm{O}_{2}$; p. 26: (et cepe)runt in $\mathrm{O}_{11}$; p. 73: meve(lavit) in $\mathrm{M}_{1}$; p. 91 : (ma)nerv in M 5; p. 119: (et) confif(ebor) in M 12; p.123: (do)mine in M 13: P. 124: quoni(am) in M 13; p.143: et te(nxerunt) in M 17; p. 161: edi(freabo) in M 3 1. See Ex. io below. Waire's predecessors and successors in this pracrice are too numetous to list.
13. According to Anonymous IV, "Nullum tempus significar, sed ponitur propter divisionem syllabarum" (Reckow, 1: 61). For an alternative transcription, see Sanders, "Medieval Moret," soo, Ex. 7.
14. Waire, 143. "Pausationum vel tractuum quedam dicitur . . . suspiracio. ... Suspiratio esc apparentia pausationis sine exisentia," as Garlandia puss it (Reimer, 1: 66-67). For a similar formulation by Anonymous IV, see Reckow, 1: 61. The function of the scroke as a suspiratio to indicate phrasing occurs in ocher concexss as well (e.g., in camdae of conducti and in copulae of organa). Though he does nor cire the cheoriss' rule, Karp has offered cranscriptions of some of the larter, based on musical common sense ("Toward a Critical Edicion of Notre Dame Organa Dupla," Tbe Mxsical Quarterly ${ }^{2} 2$ [1966]: 3s8ff.).

plate i. Wolfenbüttel, Herzog August Bibliothek, 677 (Helmstedt 628), $W_{1}$, fol. 33v (29v)
plate in. Florence, Biblioteca MediceoLaurenziana, Plut. 29.1, fol. IIIv

and 7 c ; barlines are added in Examples 7 b and 7 c for clarification) does without the strokes and thereby significantly alters its sequential phraseology.

## EXAMPLE 7.



Telltale remnants of this scribal habit can be found in quite a few clausulae, and similar notational quirks crop up in early Notre Dame moters preserved in later sources; for instance, clausula No. 2148 (F, fol. 164v), a setting of the melisma Jobanne from Alleluia: Inter natos, ends as in Example 8. None of the motet sources ${ }^{15}$ managed to notate the two phrases marked in Example 8 without distorting or changing either the ligature notation or the modal declamatory pattern, though certainly it would have been simple to avoid the first of the two problems by applying the principles of syllabic notation initially demonstrated in the corpus of substitutes in MS F. Stemming from the historical primacy of melismatic notation of thythm, the apparent practice of Notre Dame composers to precede the writing of motets with the conception and composition of their melismatic models in melismatic notation (clausulae) ${ }^{16}$ apparently caused both the composers and scribes to retain, more or less uncritically and unconsciously certain particularly conventional remnants of melismatic notation in syllabic contexts.

EXAMPLE 8. F, No. 2148 (fol. 164v)


[^117]The notation in a duplum of a binaria preceded by a stroke and coincident with a new syllable is particularly common at the end of organal phrases, often those immediately before a discant passage. In such cases, alternative notations in concordant sources will at times help to demonstrate the proper reading of these binariae (see Example 9). Moreover, purely melismatic passages similar or identical to phrases with syllabic change are plentiful. For instance, the setting of quoniam (cited in n . 12 above) exemplifies the occurrence of a concluding binaria with syllable change at the end of a discant passage. A similar entirely melismatic phrase occurs in $\mathrm{M}_{42}$ (Example Io). In view of the usually rather wide distance berween changes of syllable in "Leoninian" organa, ${ }^{17}$ the absence of a consistent notational orthography to account for them is hardly surprising.

EXAMPLE 9. F, fol. $84 \mathrm{v} ; \mathrm{W}_{2}$, fol. 58 v
EXAMPLE 10
a. $W_{1}$, fol. 3 Iv (27v); Waite, 124


[^118]Concluding binariae with syllable change likewise occur frequently in the examples of, and in the organa appended ro, the Vatican Organum Treatise, and these are closely related in style to the older organa of the Magnus liber organi, ${ }^{18}$ except that the upper voice contains no ligature patterns guaranteeing fixed rhythms. One third of the 251 short passages constituting the main body of examples coordinate the syllable change at the end with a ligature in the upper voice, preceded by a stroke. By far the most common case is that of a final clivis ( 71 percent), ${ }^{19}$ and in well over half the cases its first note forms a unison with its predecessor, the antepenultimate. In most of the remaining cases of a concluding clivis, it is preceded by a form of climacus ("coniunctura," to make anachronistic use of Franco's term). Taken together, these two groups account for over ninety percent of all final clives. Of the eleven cases of concluding pedes, only one does not fall into either of these two main groups. These facts strongly suggest the following conclusion: endings with a binaria whose last note produces consonant counterpoint, rather than endings with a single note, are often a matter of notational convenience or compulsion. ${ }^{20}$ Endings with ligatures may also suggest an unselfconscious tradition of melodic and notational flourishes or gestures.

The manuscripes transmitting the Magnus liber organi have all the appearance of carefully prepared copies. The music of the Vatican Organum Treatise, however, like that in most sources of polyphony prior to Notre Dame, looks far less orderly, since the spatial coordination of the successive stages of writing was planned with less care. ${ }^{21}$ The distribution of the notes shows that some syllables were writren either too far to the right or too far to the left to accommodate the music nearly. More obvious is the drawing of more or less vertical lines which, as in the Notre Dame sources, are symbols of allocation, coordination, delimitation, and grouping for units of melismatic and syllabic events; more often than nor, these lines are curved and bent-evidence that their function was not taken into account when the music was written. The untidy-in fact, often chaoriclook of the pages shows that the lines or strokes were drawn later, though quite possibly by the same hand that had notated the music.

The same or similar procedures can be observed in other polyphonic sources preceding the Magnus liber organi, such as the Codex Calixtinus, ${ }^{22}$ GB-

[^119]Lbm Add. 3688I (the latest of the polyphonic "St. Martial" manuscripts), ${ }^{23}$ GB-Cu Add. Ff. 1.17, and a polyphonic version (composed c. 1100 and preserved in an Apt manuscript) of a monophonic Benedicamus substirute in F-Pn lat. I 139 (the earliest of the manuscripts preserving Aquitanian polyphony). ${ }^{24}$

For the most part, the older Aquitanian sources of polyphony do not exhibit any added lines of division. ${ }^{25}$ Both their absence in these manuscripts and their presence in the others compel the conclusion that the notation is basically descriptive of the compositional process and only loosely prescriptive for the singer, whose musicianship must have been adequarely served by this elliptic stenography. The notation conveys the impression of more or less florid counterpoint fitted to the notes of cantus prius facti, but not to the words-a procedure seemingly characteristic of most contrapuntists anytime. The composers' customary indifference to text in their concern for contrapuntal design is well exemplified in the discant passage from the Alleluya: Hic Martinus, appended to the Vatican Organum Treatise (see Plate III), ${ }^{26}$ shown in Example II. Chiefly, their response to text seems to have been their recognition of its syntactical structure as determining the main divisions of the music.

EXAMPLE II. I-Rvat Ottob. Lat. 3025, fol. 49


If, then, the conception of such counterpoint cum littera generally was not neumatic, but rather purely melismatic (regardless of the incidences of syllables), the declamation of the text by the upper voice may well have been, and presumably often was, unconstrained by the ligations. When a scribe has provided syl-

[^120]
plate iII. Rome, Biblioteca Apostolica Vaticana, Ottob. Lat. 3025, fol. 49

lable strokes subsequent to writing the music, he has placed them in each case as close as convenient and possible to the note on which the singer of the upper voice, simultaneously with his partner, is to pronounce a new syllable. ${ }^{27}$ Thus syllabication would in principle seem to have been one of the many "accidental" elements not precisely specified or specifiable by the notation, and hence one left to be worked out in rehearsal, rather like the choice of $b m i$ or $b f a$.

No medieval treatise prior to Johannes de Garlandia's, the first to use the terms sine littera and cum littera, provides us with any information about the way text and counterpoint other than "first species" were coordinated. It is essential, however, to stress that the fundamental condition of polyphony had been and still was consonance (and so continued to be until the early twentieth century). The evidence we have makes it most unlikely that notation at any time indicated a fairly consistent departure from this condition only in conjunction with the articulation of syllables in counterpoint other than "first species." ${ }^{28}$ In view of the persistence until the mid-thirteenth century of significant notational customs, it is hardly surprising, and therefore has long been recognized, that in earlier polyphony cum littera the notation of more or less florid counterpoint generally shows the last note of a ligature to form a proper consonance with the appropriate note of the cantus prius factus (alchough sometimes, usually at the beginnings of phrases, the first note of a ligature provides the consonance). To be sure, the polyphonic art of the twelfth century and of the early thirteenth century as well is not to be straitiacketed by rigid procedures, and its notation is often far less than clear, reliable, and uniform. ${ }^{29}$ However, the very lack of notational uniformity, whenever it arises between concordant versions of passages of a piece, can help us arrive at more reliable transcriptions at the same time as it shows that matters of syllabication ofren played no role in the design and notation of the upper part. This observation can be demonserated with examples from the Magnus liber organi ${ }^{30}$ as well as from the Aquitanian repertoire. Tran-

[^121]
## EXAMPLE 12

F-Pn lat. 3549

F-Pn lat. 3719 (I)

F-Pn lat. 3719 (II)

*MS:E

GB-Lbm Add. 3688I
scriptions of four versions of one short passage in Veri solis radius, ${ }^{31}$ offered with all due caution, are cited in Example 12 to support the point.

Thus the performance of polyphony written in the twelfth century and shortly thereafter appears to require rather frequent breaking of ligatures ${ }^{32}$ in order to maintain the counterpoint and declamation apparently intended by the composer. ${ }^{33}$ This procedure has been considered, advocated, or adopted repeatedly in recent years, ${ }^{34}$ on the grounds of common sense.

[^122]Florid organum and moderately elaborated discant are musica instrumentalis in a quite particular way; though vocal and involving text, they are originally and essentially not "musica verbalis," at least not in the twelfth century. The decorative function of such counterpoint goes hand in hand with its basically melismatic conception and notation. Even though as early as the fourteenth century a treatise on polyphony defines as ligatures those notes that "in cantando attribuuntur uni sillabe, ${ }^{135}$ nonetheless, the instances of polyphonic passages that force the performer to break ligatures so as to pronounce the text are too numerous to cite. They continued to occur in the thirteenth century and throughout the fourteenth and fifteenth as well.

It must be stressed, however, that twelfth-century polyphony, of course, was not regimented by an absolute system of consonant counterpoint. The excerpts in Example 13, taken from Perotinus's conductus Salvatoris hodie (c. 1200 ?), ${ }^{36}$ demonstrate incidences of dissonance produced by the coordinate, though relatively independent, melodic drive of three voices to contrapuntal cadences. ${ }^{37}$ Similarly, Wulf Arlt, in his meticulous and detailed study (cited in n. 24 above), repeatedly calls attention to cases where the melodic design of the upper voice in certain Aquitanian polyphonic compositions seems to be preeminent and therefore responsible for passing dissonant simultaneities with the lower. ${ }^{38}$ But his assertion that contemporaneous theory provides no evidence for such procedures ${ }^{39}$ disregards pertinent passages in the treatise written by Johannes Affligemensis. ${ }^{40}$ As the latter so nicely put it, "diversi diverse utuntur."

[^123]
## EXAMPLE 13



Nevertheless, it seems clear that most of the florid polyphonic works composed up to the time of Leoninus are based on a pervasive standard of consonant counterpoint, with the notation of the upper voice indicating an originally melismatic conception. Only with the rise of the motet in the first quarter of the thirteenth century-excluding the necessarily shorr-lived conductus motet-does each of the voices in a polyphonic composition gain its full, "lettered" individuality and definition. ${ }^{41}$ Literally, the upper voices of other polyphonic genres are sine littera in the manuscrips. ${ }^{42}$

[^124]Though polyphonic notation in the early twelfth century doubtless resulted from a growing need for prescription, irs flexibility (or imprecision) still reflects the customary function of freezing the products of unwritten musical tradition for mnemic purposes; i.e., to provide reminders of a systematic referential order. ${ }^{43}$ Variants in the rendition of such music, both in writing and in performing, are thus an inevitable aspect of this art. ${ }^{14}$ Gradually the relative cursiveness-or linearity, to use Charles Seeger's term-of such descriptive notations gave way to the increasing use of discrete symbols characteristic of prescriptive requirements. ${ }^{45}$ (Total fixity and specificity, of course, are possible only in electronic music, which is intrinsically notationless.) The motet's decisive step, in the mid-thirteenth century, toward comparative notational precision reflects a new standard of strict coordination of text and musical symbols denoting boch pitches and durations. ${ }^{46}$ It is symptomatic of the Gothic tendency toward greater structural rationality.

[^125]
## X

## STYLE AND TECHNIQUE IN DATABLE POLYPHONIC NOTRE-DAME CONDUCTUS

Though temporal termini a quibus, covering a time span of approximately six decades, have been fixed for quite a few Notre-Dame conductus because of specific and datable events addressed in the poetry (see Appendix I), stylistic and technical factors have, on the whole, not yet been coördinated with known chronology. The examination of available evidence presented here produces suggestive perspectives, even though it yields relatively spotty results, in part because it restricts itself to polyphonic compositions and, specifically, to melismatic passages, and to one conductus sine caudis (Crucifigat omnes). The latter is one of four known so far which originated as caudæ of other conductus; ${ }^{1}$ like clausulæ serving as conceptual and notational models for motets, these caudæ served as models for new conductus sine caudis.

The absence of caudæ is no secure criterion for dating. Yet, it is noteworthy that after 1189 all datable polyphonic conductus ${ }^{2}$ not based on prior melismatic models have caudæ and that the earliest of these compositions (Eclypsim patitur) relates to an event that occurred in $1186,{ }^{3}$ even though the period of datable conductus begins some twenty years earlier.

Examples la and 1 b

Echnsim pailur- $W_{1}$, f. $110^{\text {r }}\left(101^{r}\right) ; F$ f. $322^{*}$


1 The source for Crucifigat omnes is the final cauda of Quod promisil; the other three are Bulla fulminante, Minor natu filius, and Anima iugi, whose sources are caudæ of Dic Christi veritas, Austro terris influente, and Relegentur ab area, respectively.
2 The term «datable conductus» stands for compositions concerning events of which the more or less precise date is known.
3 The first datable monophonic conductus with a few (short) melismata concerns the same event.


Ex. la demonstrates in a nutshell the kaleidoscopic motivic technique characteristic of many caudæ. The style of each voice of the short passage is familiar from the dupla of discant passages in the early layer of the Magnus liber organi.

Examples 2a and 2b
$W_{1}$, f. $19^{v}\left(15^{v}\right)$ and $W_{1}$, f. $31^{v}\left(27^{v}\right)$


It is the cross-referential contrapuntal exploitation of such material for which the conductus caudæ were the proving ground, hence evidently leading to the rise of the composition of organa tripla.

Significantly, Ex. 1 b already consists of rhythms that are frequently encountered in works known to be by Perotinus, but are still very rare in the $W_{I}$ version of the Magnus liber organi de gradali, where generally they are associated with double longæ in the tenor. ${ }^{4}$ The following excerpt

4 They occur in M 23 (concordance of the relevant passage in M 42), M 48, and M 46. In the Magnus liber organi de antiphonario ( $W_{1}$ version) such passages are relatively more frequent. Confer Ernest H. Sanders, «The Question of Perotin’s Euvre and Dates,» Festschrift für Walter Wiora (Kassel, 1967), pp. 241 f; idem, «The Medieval Motet,» Gattungen der Musik in Einzeldarstellungen: Gedenkschrift für Leo Schrade (Bern \& München, 1973), pp. 501 f.
from Perotinus's conductus Salvatoris hodie is quite similar in rhythmic style and in the resolute writing of dissonances in conjunction with the coördinate, though relatively independent melodic drive to contrapuntal cadences. ${ }^{5}$

Example 3
$W_{l}$ f. $95^{\text {r }}{ }^{\left(866^{r}\right)}$; LoAf. $86^{v}$; Ff. $201^{\text {r }}$; Ma f. $111^{\mathrm{r}}$; $W_{2}$ f. $31^{\text {r }}$


Unfortunately, as so often is the case in examining aspects of the NotreDame répertoire, the evidence is too meager for definite conclusions, but it may not be unreasonable to suggest that Perotinus played a major rôle in creating the concept and developing the style of the conductus cum caudis.

Examples 4 (1189) and 5 (1190?) show that the rhythms soon to be known as first mode were of course prevalent in the caudæ of conductus written before the end of the 12th century. Indeed, they continued to be prominent in the 13 th century, as is well known from all NotreDame genres.

Example 4
Redit etas aurea- $W_{l}$ f. $110^{*}\left(101^{v}\right) ; F$ f. $318^{v}$
(a)


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fugan - -
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5 For other examples from the same composition, see Sanders, «Sine littera and cum littera», Music and Civilization: Essays Presented to Paul Henry Lang (New York, 1984).


Example 5
Pange melos $-W_{l}$ f. $119^{\circ}$ (110r); Ff. $351^{\text {r }}$


In the early years of the new century, however, the interrelated phrase design of the voices became considerably more complex, as it also did, gradually, in the organa tripla (and quadrupla) and in the emerging clausula répertoire.

Example 6
Regi regum-Ff. $337^{v}$


Example 7a
Ofelix Bituria-W, f. 88' (79r); Ff. 209 r


Regi regum and $O$ felix Bituria pertain to an event that occurred in 1209. The second of these compositions is the first datable conductus with a cauda containing second-mode rhythms, thus lending a measure of support to the suggestion I made in 1967 that «in the years around $1210 \ldots$. [Perotinus] must have.... experimented with the increasing variety of rhythm that came to be codified into the modal system..» ${ }^{6}$

Example 7b
Ofelix Bituria $-W_{I}$ f. $88^{\text {r ( }}$ (79r); $F$ f. $209{ }^{\text {r }}$


6 Sanders, "The Question,» p. 245.



The second-mode rhythms in Ex. 7b are, on the whole, elaborations of the rhythmic pattern of the newly emerged third mode, from which the * second mode is likely to have originated. ${ }^{7}$ A later conductus, concerning an event in 1224, contains a cauda whose second-mode passages are entirely independent of any association with the third mode. ${ }^{8}$

Example 8
De rupta Rupecula-Ff. $245^{r}$


The evolutionary process tentatively outlined here through observation of rhythmic features is paralleled by the declining incidence and cadential use of the vertical interval of the fourth in the above excerpts. As in other répertoires, after the twelfth century it increasingly loses validity as an unsupported contrapuntal interval.

7 Confer idem. «Duple Rhythm and Alternate Third Mode in 13th-Century Polyphony,» Journal of the American Musicological Society, XV (1962), p. 282.
$8 \quad \ln F$, the only source to contain the ending of the piece, the transmission of the end of the final cauda is corrupt.

The entire Notre-Dame répertoire contains no conductus for three voices that sets a poetic text concerning an event prior to the 13th cen-tury-except, apparently, Crucifigat omnes (dated circa 1188) and Novus miles sequitur (dated 1173). Routine composition for three voices seems quite unlikely as early as 1173 . While it may have been cultivated fifteen years later, it is very doubtful that as early as 1188 a syllabic conductus would have been derived from the cauda of another; in all probability the presumably precedent technique of turning a clausula into a motet did not begin to flourish before the later years of the first decade of the 13th century. ${ }^{9}$

Otto Schumann, one of the editors of the texts of the Carmina Burana, considered Crucifigat omnes, whose text appears in that collection, to have been written in consequence of events leading to the third crusade and therefore dated it somewhere between 2nd October 1187, the day of Saladin's conquest of Jerusalem, and early $1189 .{ }^{10}$ To test this assumption it is essential to examine the poem's vocabulary carefully and without preconceptions. ${ }^{11}$

5

10

15

May the Lord's second cross, Christ's new wounds, crucify everyone! The tree [trunk] of salvation has wasted away; violently a crowd of heathens demolishes the sepulcher; the city that was [though] full of people sits solitary [abandoned]; the goat destroys the lamb's covenant; Zion, the bride, bewails her lost dowry;* Hananiah is struck down; the horn of David is bent low; the horn of David is bent low;
he who is guiltless is scourged: he by whom the world is justly judged is deposed by the sinners.
Crucifigat omnes
domini crux altera,
nova Christi vulnera!
Arbor salutifera
perditur; sepulcrum
gens evertit extera
violente;
plena gente
sola sedet civitas;
agni fedus
rapit hedus;
plorat dotes perditas
Sponsa Syon; immolatur
Ananias; incurvatur
cornu David; flagellatur
mundus;
ab iniustis abdicatur
per quem iuste iudicatur
mundus.

O quam dignos luctus! O what fitting lamentations! Exulat rex omnium; The king of all is exiled; baculus fidelium sustinet opprobrium gentis infidelis; cedit parti gentium
pars totalis; iam regalis in luto et latere
elaborat
tellus, plorat Moysen fatiscere; homo, dei miserere, fili, patris ius tuere, in incerto certum quere, ducis ducum dona promerere et lucrare lucem vere lucis!
[Quisquis es signatus fidei charactere, fidem factis asssere, rugientes contere catulos leonum; miserans intuere corde tristi damnum Christi; longus Cedar incola,
surge, vide, ne de fide reproberis frivola; suda, martyr, in agone spe mercedis et corone; derelicta Babylone pugna pro celesti regione, aqua vite; te compone, pugna!]
the staff of the faithful
suffers the scorn of the infidels; the total part [the part that is totality, id est, Christ]
gives way to the party of the heathens;
now the royal land
struggles in mud and brick /id est, in op-
pression]
and bewails
the faintheartedness
of Moses.
Man, have mercy on God,
son, defend the father's authority [right];
in instability seek that which is certain,
make sure you deserve
the gifts of the leader of leaders
and gain the splendor of the true light.

Whoever you may be who are marked with the sign of the faith, demonstrate that faith with deeds, smash the roaring young lions; regard with pity and saddened heart Christ's harm.
You who have long been a far-off inhabitant
of Kedar, rise and see to it
that you are not condemned
of trifling faith;
toil in combat, martyr,
in hopes of reward and crown;
forsake Babylon
and fight
for the heavenly realm,
for the water of life!
Prepare yourself, fight!

The poem contains a number of metaphorical allusions strongly suggesting that it concerns not the third, but the fifth crusade. The most important of these metaphors is the expression «plorat Moysen fatiscere» (vv. 30-31). According to Schumann, this «wird heißen, daß das Heilige Land trauert über die Saumseligkeit, mit der zum Kreuzzug gerüstet wird...."12

There was, however, no undue delay in the preparation for the third crusade. ${ }^{13}$ Moreover, if the poet's purpose had been merely to complain about a generally prevailing tardiness, his reference to Moses (id est, his protracted reluctance to do the Lord's bidding - Exodus III and IV) would be quite enigmatic. On the other hand, beginning in early 1219 , the constant procrastination of Frederick II to assume the military leadership of the fifth crusade, quickly became a cause célèbre in Christendom. Pope Honorius III reprimanded him on 1st October «quod ad Terre Sancte subsidium promptiorem et maiorem non exhibes apparatum," and cautioned him "ne.... laqueum, quod absit, excommunicationis incurras». The letter is filled with exhortations: "excitare teipsum.... compelle.... festina, festina.... Festina, rex egregie....>14 The urgent tone is particularly understandable in the light of what in September the pope had written to Cardinal Pelagius, the papal legate with the crusaders: «Noveris autem multitudinem signatorum ad Terre Sancte festinare succursum, ad quem etiam carissimus in Christo filius noster Fredericus illustris, in Romanorum Imperatorem electus, speratur recepta imperii corona in proximo accessurus. Quare sicut alter Josue populum Domini corrobora et conforta.....115 $\ln$ a further letter to Frederick, written in March 1220, the pope again complains «de retardato processu tuo in subsidium Terre Sancte» and enjoins him: "Accingere, accingere gladio....»> ${ }^{16}$ Moreover, «much contemporary popular criticism was directed at Frederic; it appears in some of the poetry of the troubadours, who reminded him of his repeated failures to fulfill his vow.>> ${ }^{17}$ For instance, a poem by Peirol contains the following line: «Just a short while ago I saw the emperor swear many an oath, which he now breaks....>> ${ }^{18}$

While Moses was often referred to in mediæval writings as a prototypical leader, the use of his name in connection with the state of the fifth crusade in 1219 or shortly thereafter was especially apt. In 1218, the crusaders, having arrived in Acre, decided for a number of sound strategic reasons to implement an old plan, which had been considered several

13 The best and most recent accounts of the crusades are given in Adolf Waas, Geschichte der Kreuzzüge (Freiburg i/Br, 1956) and Kenneth M. Setton, ed., A History of the Crusades ( 1969 ff ). A lively and detailed account of the fifth crusade is contained in Joseph P. Donovan's Pelagius and the Fifth Crusade (Philadelphia \& London, 1950), chapters II-IV.
14 J.-L.-A. Huillard-Bréholles, ed., Historia Diplomatica Friderici Secundi, v. I (Paris, 1852), p. 692.
15 Recueil des historiens des Gaules et de la France, v. XIX (1880), p. 691.
16 J.-L.-A. Huillard-Bréholles, ed., Historia Diplomatica Friderici Secundi, v. I (Paris, 1852), p. 746 f.
17 Kenneth M. Setton, ed., A History of the Crusades (1969 ff), p. 437. For troubadour poems referring to Frederick II, several of them dealing with his dilatory rôle in the fifth crusade, see O. Schultz-Gora, Ein Sirventes von Guilhem Figueira gegen Friedrich II, (Halle ${ }^{a} / \mathrm{S}, 1902$ ), especially the list in Appendix I (p. 33-38).
18 See Friedrich Diez, Leben und Werke der Troubadours (Zwickau, 1829), pp. 317 ff, 2nd ed., Karl Bartsch, ed. (Leipzig, 1882), pp. 258 ff; Vincenzo de Bartholomæis, Poesie provenzali storiche relativo all' Italia, v. II (Istituto storico Italiano: fonti per la storia d'Italia, v. LXXII; Roma, 1931), pp. 11-14.
times ever since the first crusade, to wrest the Holy Land from the Moslems by first conquering their Egyptian stronghold. They began their siege of the important city of Damietta (about 45 kilometers west of Port Saïd) on 29th May 1218. It was not until 17 months later (5th November 1219) that they succeeded in taking it, only to lose it again in August 1221. ${ }^{19}$ That defeat in effect brought the fifth crusade to its ignominious end.

The man who, more than anyone else, was responsible for the conduct of the crusade in Egypt was the papal legate, Cardinal Pelagius. That the crusaders' difficulties in Egypt as well as Frederick's constant procrastinations should have caused the latter to be referred to as Moses-at least in this poem-seems anything but surprising. ${ }^{20}$ Not only was he the European secular leader, but he was also thought of as the only figure of sufficient authority and brilliance to guide the crusaders from Egypt to the Holy Land.

These circumstances make it possible to interpret several other references in the poem, which proceeds from a general lament about the plight of the Holy Land (stanza 1), to the exhortation of Christians to come to the rescue (stanza 2), to a specific appeal to «Moses» (stanza 3). The injunction to «defend the faith with deeds» would seem to imply that Frederick's many promises were no longer sufficient. The reference to a long stay in far-off Kedar is uniquely applicable to Frederick, who, though a Sicilian by background and inclination, had resided in Germany since 1212. The warning not to run the risk of being «condemned of worthless faith> finds its corollary in the pope's cautionary mention in October 1219 of possible excommunication. The command to foresake Babylon, id est, the sordid affairs of the secular world with its sinful luxuries, ${ }^{21}$ seems peculiarly appropriate to Frederic and his political preoccupations. The reference to "corona" can also be seen as specific; on 22nd November 1220 Honorius bestowed the imperial crown on Frederic, who at long last had left Germany to go to Rome for that occasion. To be sure, several of these expressions can be understood as applicable to Christians generally, but the references to Kedar and, especially, to Moses seem too precise, given the historical circumstances, not to be related to Frederick II and therefore justify the specific relevance of the other allusions.

Thus, the poem is likely to have been written in the summer or early fall of 1219 , before the crusaders' conquest of Damietta, or, possibly, during the spring or summer of 1220 , id est, before Frederick's coronation, at a time when on account of the crusaders' increasing demoraliza-

[^126]tion the situation in Egypt had already begun to deteriorate fatefully. The revised dating is entirely consistent with the most recent dating of MS München, Bayerische Staatsbibliothek, Clm 4660 ("Carmina burana»), which reverts essentially to that given by Wilhelm Meyer, id est, circa 1225.22 Moreover, the manuscript contains another poem that can be dated 1219 (or perhaps a year or two earlier). ${ }^{23}$

The amended date brings this composition into close temporal proximity with Bulla fulminante (1222-1223), ${ }^{24}$ another of the four conductus that are known to be versions cum littera of the cauda of a preëxisting conductus. (Passages in Crucifigat that show the priority of the melismatic version are domini crux [Duplum] and Ananias.... flagellatur mundus [Dupluml.) The earlier date traditionally assigned to Crucifigat must be recognized to predate the rise of this «motetish» procedure by at least twenty years.

The poetic form, which Schumann had called «sehr kunstvoll, sorgfältig und eigenartig. $\mu^{25}$ of course owes its idiosyncrasies to the sophisticated phrase structure of the melismatic original-a situation that is abundantly familiar from the motet répertoire with its melismatic models (clausulæ). The following diagram shows the ingenuity of the poet in his confrontation with that of the composer.


A complete edition of the composition is given in Appendix II. The $H u$ version, whose Duplum diverges after Syon, shows significant contrapuntal and rhythmic differences from all the others. For melodic adjustments in the Duplum see sepulcrum, vi(olente), a(gni), and rapit. Revealing rhythmic variants occur at omnes, sepulcrum, and, especially, sponsa Syon immolatur. In all these spots, $H u$ perverts the emphatic rhythm, clearly indicated in the cauda of Quod promisit (note particularly the explicit divisiones in $W_{l}$ in the last of those three passages) and in Crucifigat by a special notational device at sponsa Syon in $W_{2} b$, to a continuation of the preceding trochaic (first-mode) rhythm. These changes were

22 See David Fallows, «Sources, MS, Secular Monophony,» The New Grove XVII, p. 637a: Wilhelm Meyer, ed., Fragmenta Burana (Berlin, 1901), p. 17.
23 Hilka and Schumann, eds., Carmina Burana, v. $\mathrm{II}^{1}$, p. $71^{*}$; v. $\mathrm{I}^{3}$, p. XI.
24 Friedrich Ludwig, Repertorium organorum recentioris et motetorum velustissimi stili (Halle ${ }^{a} / \mathrm{S}, 1910$ ), p. 266; Jacques Handschin, «Conductus-Spicilegien,» Archiv für Musikwissenschaft IX (1952), p. 107.
25 Hilka and Schumann, eds., Carmina Burana, v. I1 ${ }^{1}$, p. 97.
reported by Anderson without comment, ${ }^{26}$ although he had earlier asserted that the mensural sources of Notre-Dame conductus (particularly Hu and a fragmentary source in the Heidelberg library) «reflect very accurately the rhythm of these works as conceived by their composers and as transmitted in manuscripts in square notation». ${ }^{27}$ The Triplum of Cjec seems less accomplished than that in the Continental sources, since only the latter has musical recurrences together with those of the Tenor and Duplum. ${ }^{28}$

The most probable time of composition of Novus miles, a conductus concerning St. Thomas of Canterbury, has been said to be «almost certainly in the early part» of $1173^{29}$ or «the spring of 1173 ». ${ }^{30}$ The Latin text and a translation into English are given below to provide the necessary basis for an examination of the content and dating of the poem.

5

10

| Novus miles sequitur | The new champion [soldier] follows <br> viam novi regis, |
| :---: | :--- |
| the path of the new king; |  |
| bonus pastor patitur | the good shepherd suffers |
| pro salute gregis; | for the welfare of his flock. |
| Thomas agni sanguine | Thomas doubly laves |
| lavat stole gemine | the purple of the robe |
| purpuram rubentem; | reddened with the blood of the lamb. |
| res est satis evidens | It is very clear |
| quod illustrat occidens | that he who perishes <br> totum orientem. |
| illustrates him who was just born. ${ }^{31}$ |  |

26 Gordon A. Anderson, The Latin Compositions in Fascicules VII and VIII of the Notre Dame Manuscript Wolfenbüttel Helmstadt. 1099 (1206), part I, p. 63.
27 «The Rhythm of cum littera Sections of Polyphonic Conductus in Mensural Sources," Journal of the American Musicological Society XXVI (1973), p. 301; he made a similar assertion five years later in «The Rhythm of the Monophonic Conductus in the Florence Manuscript as Indicated in Parallel Sources in Mensural Notation,» Journal of the American Musicological Society XXXI (1978), p. 480.
28 For a differing view, see Anderson, The Latin Compositions, part I, p. 65.
29 Denis Stevens et alii, eds., Music in Honour of St. Thomas of Canterbury (London, 1970), p. 49. An edition of the conductus is found on pp. 10 ff . It is identical to that given in Janet Knapp, Thirty-five Conductus, in Collegium Musicum VI (1965), pp. 40 f , including three textual readings (accidens, paralytici, Legicestriam). For two other editions, see Higini Anglès, El Còdex musical de Las Huelgas, ed. v. III (Barcelona, 1931), $\mathrm{N}^{\circ}$ 102; Anderson, ed., The Las Huelgas Manuscript, II, $\mathrm{N}^{\circ} 63$.
30 Denis Stevens, «Music in Honor of St. Thomas of Canterbury,» The Musical Quarterly LV1 (1970), p. 340, where the composition is referred to as a motet.

> Opus erat medico mundo morienti, et gregi dominico pastore prudenti;
> sanguis Thome medici mundi paralitici vulnera sanavit; clamat grex dominicus quod Anglorum medicus mundum renovavit.

Thoma, nati parvuli miles triumphalis, sis cleri, sis populi pastor spiritalis; audi Legecestriam,
clerum et miliciam eius ita rege,
ut regnet in patria peracta milicia cum eterno rege.

The dying world needed a healer, ${ }^{32}$ the Lord's flock needed its wise shepherd.
The blood of Thomas, the healer, has cured the wounds of the palsied world. The Lord's flock proclaims the world's renewal by England's physician.

Thomas, triumphant champion of the tiny Son, be the spiritual shepherd of clergy and people.
Hear Leicester and guide its clergy and knighthood so that, having completed its service, it may abide with the eternal king in the heavenly realm.

The summary of the poem's content given in the cited article ${ }^{33}$ refers to the effect the martyrdom of St. Thomas «had on the Western world» (vv. 9-10), identifies the «new king» (v. 2) as the son of Henry II, whom the latter had crowned (as co-regent) in 1170 and who («the young Prince Henry») is taken to be the «little boy» of the poem (v. 21). The salient fact to remember in reading this poem, however, is that the feast of St. Thomas of course occurs on the day of his martyrdom, id est, only four days after Christmas, the birthday of the new king, the natus parvulus, which is hardly what anyone would have called the eighteen-year-old Prince Henry in 1173. Nor, clearly, do verses 9 and 10 have anything to do with the effect of the murder in the cathedral on the Western world. The enormity of this event, «in loco sacro, sacro Domenicar Nativitatis tempore, $\mu^{34}$ is signified with consummate poignancy in the poem. Not only has St. Thomas's blood effected miraculous cures, ${ }^{35}$ but it also serves as

31 But also (?): that the West wholly illumines the East, and also (?) that (paradoxically) the sunset illumines the sunrise.
32 Also: Dying, the guiltless one needed a physician. - For the various meanings of miles and militia see The Oxford Latin Dictionary; J. F. Niermeyer, Media Latinitatis Lexicon Minus (Leiden, 1976); Albert Blaise, Dictionnaire Latin-Francais des Auteurs Chrétiens (Turnhout, 1954); Novum Glossarium Media Latinitatis.
33 Denis Stevens, «Music in Honor of St. Thomas of Canterbury,» The Musical Quarterly LVI (1970), pp. 339 f.
34 Breviarium ad usum insignis ecclesia Sarum, ed. F. Proctor and C. Wordsworth (Cambridge, 1882, R/ 1970), col. cclvi (eighth lesson).
35 Denis Stevens, «Music in Honor of St. Thomas of Canterbury,» The Musical Quarterly LVI (1970), pp. 340. See also the ninth lesson in the Breviarium ad usum insignis ecclesiae Sarum, ed. F. Proctor and C. Wordsworth (Cambridge, 1882, R/ 1970), col. cclvii: "leprosos mundans, consolidans paralyticos....".
a shocking reminder, right there and then, of the little babe's ultimate destiny, of the purple robe ${ }^{36}$ bloodied doubly and in a dual wayboth before and after, as it were.

The third stanza does indeed seem to point to 1173 as the most likely year of origin of the conductus. Leicester was one of the major centers of rebellion against the king, who finally gained his decisive victory in July $1174 .{ }^{37}$ However, if one wishes to relate the poem to a specific event, there are other occasions that could have prompted the writing of the third stanza, which, like the second, exists only in one of the three sources transmitting the conductus. «A new revolt broke out in 1183» in Leicester and «the struggle which broke out between King John and the barons in 1215 again made Leicestershire the scene of conflict». ${ }^{38}$ Nonetheless, the likeliest of the pertinent dates must be recognized to be 1173, though the liturgical references ${ }^{39}$ strongly point to the day of the feast rather than any other time of the year.

The one remaining problem is the fact that a composition for three voices would seem to be an almost impossibly early occurrence in 1173. While the three voices have been described as intertwining «themselves harmoniously, smoothly, and with a skillful use of minimotives, $>^{40}$ the Triplum, which occurs in only one of the three sources, is nonetheless the least smooth of the voices (it contains four fifths, one seventh, and one octave) and has the greatest number of contrapuntal infelicities. One may well be justified to conclude, therefore, that it was a later addition or, less probably, that a somewhat problematic composition à 3 was written at some later time (perhaps 1215). ${ }^{41}$

[^127]
## Appendix I

## Datable Conductus ${ }^{42}$

| Incipit | Anderson <br> $N^{\text {o }}$ | Date | Number of Voices |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| In rama sonat gemitus | L 1 | $1164-1170$ | 1 |
| Novus miles sequitur | E 11 | $1173(?)$ | 3 |
| Ver pacis aperit | J 32 | 1179 | 2 |
| Omnis in lacrimas | K 2 | 1181 | 1 |
| Eclypsim patitur | I 7 | 1186 | 2 |
| Anglia planctus itera | K 12 | 1186 | 1 |
| Venit Jhesus in propria | K 42 | 1187 | 1 |
| * Sol eclypsim patitur | K 83 | 1188 | 1 |
| Redit etas aurea | I 8 | 1189 | 2 |
| In occasu syderis | I 11 | 1189 | 2 |
| Pange melos lacrimosum | I 15 | $1190(?) 43$ | 2 |
| Divina providentia | K 9 | circa 1192 | 1 |
| Turmas arment christicolas | K 41 | $1192-1193$ | 1 |
| Eclypsim passus tociens | K 33 | 1197 | 1 |
| Jherusalem, Jherusalem | K 46 | 1198 | 1 |
| Pater sancte dictus Lotharius | K 61 | 1198 | 1 |
| Christus assistens pontifex | K 48 | 1208 | 1 |

42 For relevant bibliographic details see Gordon A. Anderson's invaluable «Notre Dame and Related Conductus; A Catalogue Raisonné,» Miscellanea Musicologica VI (1972), pp. 153-229; VII (1975), pp. 1-81. Not included in this list are: (1) Nulli beneficium, because of the entirely too flimsy grounds on which this composition was dated by Handschin in «A Monument of Mediæval English Polyphony," The Musical Times LXXIV (1932), p. 512; (2) Nemo sane spreverit; Léopold Delisle associated this poem with king Philipp II (Philipp Augustus), «qualifié de borgne dans plusieurs textes du xiiie siècle» («Discours,» AnnuaireBulletin de la Société de L'Histoire de France XXII [1885], p. 111, n. 6). There is no information, however, when during his 58 -year life he lost the sight of one eye; indeed, Alexander Cartellieri, in his four-volume biography of Philipp (Philipp II August, König von Frankreich, 1899-1922) states (v. IV, pt. II, p. 577. n. 1) that «otherwise nothing is known» of the king's blindness in one eye; (3) and (4) Aque vive dat fluenta and In paupertate predio, poems concerning Sts. Anthony of Padua and Francis of Assisi, respectively, cannot be dated precisely; (5) and (6) Dum sigillum and Salvatoris hodie as well as (7) Beata viscera, while known to have been composed by Perotinus, can likewise not be dated with sufficient precision.
43 «Ces deux couplets se rapportent peut-être [sic] à la mort de l'empereur Frédéric Barberousse, en 1190» (Delisle, Annuaire-Bulletin de la Société de L'Histoire de France XXII [1885], p. 119, n. 2).

| Anni favor iubilei | J 25 | $1208^{44}$ | 2 |
| :--- | :--- | :--- | :--- |
| Regi regum omnium | J 22 | 1209 | 2 |
| O felix Bituria | E 8 | 1209 | 3 |
| Rex et sacerdos prefuit | K 49 | 1212 | 1 |
| Crucifigat omnes | D 3 | $1219(1220)$ | 3 |
| Bulla fulminante | L 5 | $1222-1223$ | 1 |
| Beata nobis gaudia | K 44 | 1223 | 1 |
| Alabaustrum frangitur | K 50 | 1223 | 1 |
| O mors que mordes omnia | K 77 | 1223 | 1 |
| De rupta Rupecula | F 25 | 1224 | 3 |
| Clavus clavo retunditur | K 51 | 1233 | 1 |
| Clavus pungens acumine | J 39 | $1233(?)^{45}$ | 2 |
| Aurelianus civitas | K 60 | 1236 | 1 |

## Appendix II

## Critical Commentary

| Abbreviations: | $b$ | brevis | lig | ligature |
| :--- | :--- | :--- | :--- | :--- |
|  | div | divisio | si | single note |
|  | Du | Duplum | T | Tenor |
|  | 1 | longa | Tr | Triplum |

Numbers designate bars and - after the comma - notes within bars.

## I. Final cauda of Quod promisit (Anderson catalogue: G 2)

Sources: $W_{1}$, f. $140^{\nu}\left(131^{v}\right) ; F$, f. $301^{r} ; M a$, f. $77^{\nu} ; W_{2}$, f. $112^{v} ; H u$, f. 133 ${ }^{\nu}$, Stuttgart, Landesbibliothek H.B.I. (Ascet.), f. $32^{\nu} .{ }^{46}$

Variants: T $W_{I}$ 2,3-4 si (D)/ 9,1-6 div after each note. T F 4,3 B/ 13,7-9 11 (GF). T Ma 1,6-7 no div/ 6,5-7 11 (BG). T $H u$ Flat signature through bar 5, cancelled before bar 7/ 1,6-7 no div/ 3,1 D/ 3,4-6 CDC/ 5,1-6 missing/ 8,3 no plica/ 11,8 rest (no $b$ )/ 13,8 see transcription.

Du $W_{1} 9,1-2,4-6$ div after each note. Du $F 10,4$ div/ Du Ma 2,3 div erased. Du $W_{2} 9,5 \mathrm{div} / 13,7-911$ (AG). Du Hu Flat signature through bar 9 , cancelled before bar $10 / 2,3 \mathrm{lb}$ (GG), no rest/ 6,1-7 missing/ 8,3 no plica/ 10,4 and $10,8 \mathrm{div} / 13,9$ see transcription.

44 While this conductus is usually dated 1209-1229 (see also Robert A. Falck, «The Structure of the Polyphonic and Monophonic Conductus Repertoires,» Brandeis University Dissertation, 1970, pp. 44, 105; his The Notre Dame Conductus: A Study of the Repertory [Musicological Studies/ Wissenschaftliche Abhandlungen XXXIII, 1981/ is a slightly revised, but not updated version of the dissertation), Nikolaus Paulus (Geschichte des Ablasses im Mittelatter, v. II, Paderborn, 1923, pp. 101 ff) and Paolo Brozzi (Storia degli Anni Santi, Milan, [1950], p. 15) provide information making 1208 a more likely date.
45 Confer Friedrich Ludwig, Repertorium organorum recentioris et motetorum vetustissimi stili (Halle ${ }^{a / S}, 1910$ ), p. 266.

## II. Conductus Crucifigat omnes (Anderson catalogue; D 3)

Sources: $W_{1}$, f. $78^{v}\left(71^{v}\right)$; F, f. $231^{v} ; W_{2}$, f. $46^{v}\left(=W_{2} a\right.$ ); $W_{2}$, f. $138^{v}(=$ $W_{2} b$ ); Cambridge, Jesus College, Q.B.I, f. $1^{c}$; $H u$, f. 97 ; Stuttgart, Landesbibliothek H.B.I. (Ascet.), ff. 33r, $32^{v} .{ }^{46}$

General remarks: For commentary on the text see Carmina Burana, eds. Alfons Hilka and Otto Schumann, and Gordon A. Anderson, The Latin Compositions in Fascicules VII and VIII of the Notre Dame Manuscript Wolfenbüttel Helmstadt. 1099 (1206). The punctuation of the original sources has been retained in the edition of the music, but was adjusted in the edition of the text (p. 513 supra). Accidentals are indicated as written in the sources; extrapolations are given in square brackets.

Variants: (1) Text: See Alfons Hilka and Otto Schumann, opere citato, $\mathrm{I}^{1}$, pp. 92-94; Otto Schumann and Bernhard Bischoff, opere citato, $\mathrm{I}^{3}$, p. 198.
(2) Music: Confer Anderson, The Latin Compositions, part I, pp. 57 ff. No Tr in $W_{2} b$ and $H u$.

T $W_{1}$ 2,3-4 si (D)/ 3,1-7 missing/ 7,9-10 div/ 7,10 BA (lig)/ 8,10 BA (lig). T F 2,5 C/ 7,9-10 div/ 8,9-10 div/ 9,7-8 A plicated. T Cjec 2,2 FE (lig)/ 2,3-4 si (D)/2,4-5 div/ 7,5-6 div/ 8,14 B plicated. T $W_{2}$ a $1,6-7$ no div/ 2,7 B plicated/ 3,7-4,1 no div/ 4,7-5,1 no div/ 5,6-6,1 no div/ 7,3-4 B plicated/ 7,12-13,10 missing. T $W_{2} b 2,7-3,1$ no div/ 4,8-5,1 no div/ 6,7-7,1 no div/ 7,3-4 B plicated/ 10,8-11,1 no div/ 11,5-8 BAGG/ 12,5-6 BA/ 12,8-13,1 no div. T Hu see transcription. Anglès as well as Anderson (both editions) alter the note values of the source over omnes (first phrase) and over sepulcrum.

Du $W_{1}$ 3,1-7 missing/ 7,3-4 E plicated/ 7,9-10 div/ 8,9-10 div/ 13,4-5 div. Du F 6,3 B/ 8,9-10 div/ 9,3-4 E plicated/ 9,8-9 A plicated/ 12,1 B. Du Cjec 2,3-4 div/ 5,3-4 div/ 7,3-4 lig/ 7,5-6 div/ 9,5-6 div/ 11,3 CB (lig)/ 11,4-5 div/ 12,1-13,10 missing. Du $W_{2} a 3,7-4,1$ no div/4,8-5,1 no $d i v / 5,6 \mathrm{D}$ and $d i v$ written twice/ 7,12-13,10 missing. Du $W_{2 b} 3,7-4,1$ no $d i v / 4,8-5,1$ no $d i v / 6,7-8,1$ no $d i v / 10,8-11,1$ no $d i v / 12,8-13,1$ no $d i v$. Du Hu See transcription. Anglès as well as Anderson (both editions) alter the note values of the source over omnes (first phrase) and over sepulcrum. Anderson's emendation of the ligature over mundus (ends of the last two phrases), annotated in his critical commentary, conflicts with his «The Notation of the Bamberg and Las Huelgas Manuscripts,» Musica Disciplina XXXII (1978), p. 51.

Tr $W_{1}$ 2,2-3 missing (erasure)/ 3,1-7 missing/ 7,10-11 div/ 8,9-10 $\mathrm{div} / 13,5-6 \mathrm{div}$. Tr F 7,3-4 si (A)/ 7,7-8 GF (lig)/ 7,10-11 div/ 8,9-10 div/ 9,1,2,3-4 si plicata/ 9,5-6 div/ 9,6 si (G)/ 9,10-11 E plicated/ 12,5-6 div/. Tr $W_{2} a$ 1,7-8 no $d i v / 2,4-5 \mathrm{div} / 2,9 \mathrm{FE}$ (lig)/ 3,3-6 EFFE/ 3,10-4,1 no div/ 4,6 E/ 5,5 E plicated/ 5,6-9 CBA (coniunctura)/ 7,3-4 si (A)/ 7,7-8 GF (lig)/ 7,12-13,10 missing.
46 For the monophonic Stuttgart source, which was not available to me, see Gordon A. Anderson, The Latin Compositions in Fascicules VII and VIII of the Notre Dame Manuscript Wolfenbüttel Helmstadt. I099 (I206), part I, pp. 63-65, and Part II, p. 264.

Crucifigat omnes






## Crucifigat omnes




## XI

## Conductus and Modal Rhythm

IT has been more than eighty years since Friedrich Ludwig (1872-1930), arguably the greatest of the seminal figures in twenti-eth-century musicology, began to publish his studies of medieval music. His single-handed occupation of the field, his absolute sovereignty over the entire repertoire and all issues of scholarly significance arising from it, and his enormous, inescapably determinative influence on the thinking of his successors, most of whom had studied with him, explain the epithet der Grosse he was given on at least one occasion. ${ }^{1}$ Almost his entire professional energies were devoted to the music of the twelfth and, particularly, the thirteenth centuries, as well as to the polyphony of the fourteenth century, which he began to explore in depth in the 1920s. His stringent devotion to the facts and to conclusions supported by them was a trait singled out by several commentators. ${ }^{2}$

Ludwig's insistence on scholarly rigor, however, cannot be said to account completely for his Modaltheorie, which appeared to posit the applicability of modal rhythm to all music of the Notre Dame period-except organal style-and of the pre-Garlandian (or preFranconian) thirteenth century, including particularly the musical settings of poetry. Much of the pre-Garlandian ligature notation in thirteenth-century sources of melismatic polyphonic compositions of the first half of that century (clausulae, organa for more than two voices) and of melismatic portions of certain genres, such as the caudae of conducti, ${ }^{3}$ signifies modal rhythms, and the appropriateness of the modal system cannot be disputed in this context. Its validity for

[^128]syllabic music, notated until the mid-thirteenth century with undifferentiated and rhythmically insignificant note symbols, is more problematic. Those symbols (virgae), traditionally associated in the Middle Ages with musica non mensurata (Gregorian chant) and, in the Notre Dame period, with musica ultra mensuram (Gregorian chant tenors in both organal and discant portions of Leoninian organa), were used in the first half of the thirteenth century for all syllabic music, including the newly invented genre of the motet, all of whose ingredients were precisely and modally measured. Thus, the same symbol came to designate indeterminate as well as exactly and proportionately determined durational events. While the vernacular monophonic repertoires that were so notated have, in the twentieth century, been subject to the imposition of more than one rhythmic system, ${ }^{4}$ most scholars who saw justification in attaching precise values to the ambiguous notation of all syllabic music, including applicable portions of conducti, have favored the Modaltheorie because it seemed persuasive to assign to the virgae durational values in a manner similar or identical to the procedures required in motets. Many musicologists trained in Germany in the first half of the twentieth century took for granted the applicability, in principle, of modal rhythm to these repertoires. So have their students and, all in all, the students of such German-trained musicologists in this country as Curt Sachs, Willi Apel, Manfred Bukofzer, and, especially, Leo Schrade. To Ludwig's musicological children and grandchildren must be added the name of one prominent indirect descendant, that of the recently and prematurely deceased powerhouse of medieval musical scholarship Gordon A. Anderson, in whose work on the conductus the Modaltheorie figures prominently.s

Chiefly what gave rise to Ludwig's Modaltheorie was the apparent analogy between modal patterns and certain basic metrical schemes of poetry, which could be seen to have some degree of applicability in the motet repertoire of the first half of the thirteenth century. Although this observation seems, by and large, to have led to the doctrine that musical rhythm must be deduced from poetic meter, it

[^129]was the latter theory (rather than the Modaltheorie) that Ludwig articulated first. ${ }^{6}$ His view of modal rhythm (only the first three modes) as a corollary of poetic meter appears for the first time in his letter to Pierre Aubry of 13 April $1907 .{ }^{7}$ Ludwig restated it some three years later, not without conceding that "the application of modal rhythm to the older chansons rests on analogies (Analogieschliusen)" and on "the manifest parallelism of the rhythm (Rhytbmik) in motets and chansons." ${ }^{8} \mathrm{He}$ also formulated it in his Repertorium, where, in addition, he specifically claimed priority for "also [i.e., in addition to the motet repertoire] solving, in principle, the question of the transcription of large portions of the French monophonic repertoire of the twelfth and thirteenth centuries in the manner of 'modal interpretation.' . . ." ${ }^{\prime}$

Two other circumstances that came to be cited in support of the Modaltheorie were (1) the existence of Notre Dame music other than motets in mensural sources, i.e., notated with specific rhythmic symbols, ${ }^{10}$ and (2) the melodic identity, in certain conducti, of some syllabic portions with caudae written in modal ligature notation. ${ }^{11}$

In his published writings, Ludwig was cautious about the validity of modal rhythm in Minnelieder and in conducti. In fact, he publicly addressed that problem in the former repertoire only when it con-

[^130]fronted him in the context of the survey he had undertaken to write for Guido Adler's Handbuch der Musikgescbichte. ${ }^{12}$ His approach to the rhythmic interpretation of Minnelieder was noncommittal. ${ }^{13}$ While, for stated or implicit reasons, he presented the syllabic portions of his examples of monophonic conducti in modal rhythm, ${ }^{14}$ he chose not to deal with the problem in his brief discussion of polyphonic conducti, ${ }^{15}$ in contrast to some of his successors. ${ }^{16}$
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A careful examination of the issue of rhythm in the syllabic portions of conducti and, in particular, of the applicability of modal rhythm must begin by consulting the professionals of the time, so as to extract from their writings the relevant passages concerning the conductus, ${ }^{17}$ and to establish in this connection just "quid sit modus," as Johannes de Garlandia put it, ${ }^{18}$ and what it is not.
${ }^{12}$ ist ed. (Frankfurt, 1924); 2nd ed. (Berlin, 1930).
${ }^{13}$ Ibid., p. 204 (2nd ed.); cf. Kippenberg, Der Rbytbmus im Minnesang, p. 135.
${ }^{14}$ Adler, Handbuch, pp. 184-87.
${ }^{15}$ Ibid., pp. 221-24.
${ }^{16}$ For instance, Heinrich Husmann, "Zur Rhythmik des Trouvèregesanges," Die Musikforscbung, V (1952), 1 II: "Die modale Rhythmik beherrscht . . . die Kompositionsgattungen des Organums, der Motette und des mittellateinischen Liedes." ("Modal rhythm governs . . . the compositional genres of organum, motet, and medieval Latin song.") A footnote explains that "Lied soll also gleichbedeutend mit Konduktus sein." ("Song is meant to be equivalent to conductus.") Leo Schrade, "Political Compositions in French Music of the 12th and $13^{\text {th }}$ Centuries: The Coronation of French Kings," Annales musicologiques, I (1953), 33-34, put the matter more apodictically than anyone. That all conducti "are subject to modal rhythm," he asserted, "can no longer be doubted." And he continued that "it is also absolutely certain that the modal rhythm pertains to both the melismatic and syllabic passages, whereby conductus must be included that consist of nothing but syllabic composition. . . . All evidence points to the modal rhythm as valid for all types and parts of conductus. . . . This principle is as much alive in conductus of the second half of the 12 th century as it is in those of the $13^{\text {th }}$ century. . ." Two years later, however, he wrote, more cautiously, that the puzzle of conductus rhythm required abstention "from being too categorical. . . ." ("Unknown Motets in a Recovered ThirteenthCentury Manuscript," Speculum: A Journal of Mediaeval Studier, XXX [1955], 406, n. 23.) Most recently, Hans Tischler emphatically asserted, as the first of ten theses, that "Conductus müssen innerhalb des Systems der rhythmischen Modi übertragen werden." ("Conductus must be transcribed within the system of the rhythmic modes.") ("Versmass und musikalischer Rhythmus in Notre-Dame-Conductus," Arcbiv fuir Musikwisenscbaft, XXXVII [1980], 303.)
${ }^{17}$ For a comprehensive treatment of the subject, see Fritz Reckow, "Conductus," specifically pp. 6-8.
${ }^{18}$ Erich Reimer, ed., Jobannes de Garlandia: De mensurabili musica, Kritiscbe Edition mit Kommentar und Interpretation der Notationslebre, I, Quellenuntersucbungen und Edition, Beihefte zum Archiv für Musikwissenschaft, io (Wiesbaden, 1972), 36.

Garlandia mentions the conductus in only two suggestive sentences. The first occurs near the beginning of the second chapter, which deals with the notational representation of durational values, or, as he puts it more precisely, of "longitudo vel brevitas." "Et sciendum quod huiusmodi figura aliquando ponitur sine littera et aliquando cum littera; sine littera ut in caudis et in conductis, cum littera ut in motellis." ("And one needs to know that a note symbol of that sort is sometimes given without text and sometimes with text; without text as in caudae and in conducti, with text as in motets.") ${ }^{19}$ Near the end of the short third chapter, in which he presents a general introduction to the rhythmic meaning of ligatures with and without propriety and perfection, Garlandia states, "Et totum hoc intelligitur in conductis vel motellis, quando sumitur sine littera vel cum littera, si proprio modo figurantur." ("And all this [i.e., all general aspects of ligature notation] is seen in conducti or motets, inasmuch as it is applied without text or with text, if they are properly notated.") $)^{20}$ In the first of these two statements, the motet is solely and specifically associated with notation cum littera. The second can well be understood in the same way, unless one were to assume that the term "motellus" meant for Garlandia not only a texted part but also its melismatic model (the upper voice of a clausula); his citation of a motetus voice in ligature notation and his labeling of that passage as "In discantu Lonc tans a"21 proves, however, that this would be an incorrect assumption. Understandably, modern commentators have restricted Garlandia's association of the conductus with notation sine littera to its melismatic caudae. ${ }^{22}$ It is not impossible, however, to understand the first passage literally as applying to the syllabic

[^131]portions as well, to the extent that they (particularly the upper voices) are not performed like motets. ${ }^{23}$

The older part of the Discantus positio vulgaris, ${ }^{24}$ whose contents must have originated in the first quarter of the thirteenth century, mentions the conductus only in conjunction with ligatures containing more than four notes, which are beyond the pale of measured music: "Quasi regulis non subjacent, sed ad placitum proferuntur; quae etiam ad organum et conductum pertinent singulariter." ("They are not really subject to rules but are performed ad libitum; and they are particularly applicable to organum and conductus." ${ }^{25}$

The second part of the treatise, which may date from the 12705 , defines certain polyphonic genres; although seemingly more specific, it is not much more informative with respect to the conductus. "Conductus autem est super unum metrum multiplex consonans cantus, qui etiam secundarias recipit consonantias." ""The conductus, on the other hand, is a vocal polyphonic setting super unum metrum, which also admits secondary consonances.") ${ }^{26}$ The crucial and troublingly ambiguous term here is "metrum." ${ }^{27}$ The Novum glossarium mediae latinitatis lists the following secondary meanings: "mètre poétique [i.e., quantitative meter]; vers, poésie; pièce de vers, poème; mesure de capacité." The main definition is given as "mesure poétique en général"; in fact, in its most general sense, metrum is an assimilated Greek synonym for mensura. And mensura is defined as follows: "mesure, grandeur ou quantité finie susceptible d'évaluation . . .; mesure du temps, durée; mesure, rythme." Now, in his definition of the motet, with its modal rhythm, as polyphony containing divers (simultaneous) texts, the author of the treatise uses the expression "diversus in prosis multiplex consonans cantus." The term "prosa" also appears in his definitions of discant and of organum, consistent

[^132]with the two meanings of prosa as prose and rhymed nonquantitative poetry. It seems likely, therefore, that the words "super unum metrum" here are to be understood not as "one poem" but as synonymous with "super unam mensuram," i.e., "using one single unit of poetic [and musical] measurement," which, in contrast to the motet, must therefore be isochronous.

In spite of his garrulity, Anonymous IV provides very little information specifically on the conductus in his treatise (ca. 1275). Two passages relate that Perotinus composed conducti for three voices, as well as for two and one, and that three volumes, respectively, contained conducti for three voices with caudae, conducti for two voices with caudae, and conducti for four, three, and two voices without caudae. ${ }^{28}$ Elsewhere he observes that, in contrast to discant, whose Gregorian tenors are notated on four-line staves, all voices of conducti are customarily notated on five-line staves. ${ }^{29}$ In another passage he comments that organum is an equivocal term because some people apply it indiscriminately, including "improperly," to conducti, and that the organum called "universal" by the old practitioners (i.e., note-against-note counterpoint) embraced everything except, of course, monophonic conducti. ${ }^{30}$ The reference to "conducti lagi" remains obscure and quite possibly a scribal error. ${ }^{31}$

In a passage recalling, yet differing significantly from, one of the two quoted sentences in Garlandia's treatise, ${ }^{32}$ Lambertus ( 1278 or a couple of years earlier), in discussing note symbols, observes that "hujusmodi figure aliquando ponuntur cum littera, aliquando sine. Cum littera vero, ut in motellis et similibus, sine littera, ut in neumatibus conductorum et similia." ${ }^{33}$ Since the conductus differs fundamentally from the motet, it seems unlikely that Lambertus's intention was to include the syllabic portions of conducti in the expression "in motellis et similibus." He may be referring to hockets, which are indeed similar to motets. What is new, however, is his restriction of melismatic (sine littera) notation specifically to the caudae

[^133]("neumata") of conducti. Whether this represents a clarification or a reinterpretation of Garlandia's statement remains a moot question.

The two passages pertaining to the conductus in the treatise of Lambertus's respondent, the so-called St.-Emmeram Anonymous, will be discussed later. ${ }^{34}$

Franco (ca. 1280) is the first writer to describe conductus as a species of discant: "Cum littera et sine fit discantus in conductis. . . ." The only other mention of conductus occurs in the well-known observation that in such pieces both the tenor and the polyphonic superstructure must be invented by the composer. ${ }^{35}$

Walter Odington (ca. 1 300 ) defines conductus as "quasi plures cantus decori conducti" ("several suitable melodies brought together, as it were"), in contrast to the rondellus, in which several (three) people sing the phrase ingredients of one melody, but at different times. ${ }^{36}$ Thus, "conducti sunt compositi ex pluribus canticis decoris cognitis vel inventis et in diversis modis ac punctis iteratis in eodem tono vel in diversis. . . ." ("Conducti are composed of a number of suitable melodies, known or invented, and in various modes and with phrases repeated at the same pitch [in the same mode] or others. . . .") ${ }^{37}$

Odington's contemporary Johannes de Grocheio is the last writer who needs to be considered. After giving conductus and motet as types of polyphony, i.e., mensural music, Grocheio twice paraphrases Franco's observation that in conducti the tenor is newly composed. ${ }^{38}$ His only other mention of the term is in a paragraph on

[^134]the cantus coronatus, which "ab aliquibus simplex conductus dictus est." Such a song, he says, "ex omnibus longis et perfectis efficitur," ${ }^{39}$ a statement reminiscent of the expression "unum metrum" in the Discantus positio vulgaris. ${ }^{40}$

Before a summary of the evidence presented so far, a brief survey of those passages not already cited that deal with the concepts of sine littera and cum littera is essential. Apart from the two passages quoted earlier, ${ }^{41}$ Garlandia addresses the matter of presence or absence of text only once, in the sixth chapter: "Item omnis figura simplex sumitur secondum suum nomen, si sit cum littera vel sine littera." ${ }^{42}$ ("Further, the meaning of every single note is taken according to its particular nature as a symbol [its cachet], regardless of whether it has text.") ${ }^{43}$ Garlandia, in effect, states that a virga, a punctus, and a diamond are long, breve, and semibreve, respectively, and that therefore the durational value of notes is no longer, in the modal way, derived from their contextual position.

Anonymous IV adds nothing further. He reports that notes without text are ligated as much as possible, that "cum litera quandoque sic, quandoque non," i.e., depending on the number of notes allotted to each syllable, that in music cum littera the duration of single notes is unambiguous if they are well written, i.e., according to Garlandian precepts, and that therefore, i.e., if the rules of propriety and perfection are observed, "maxima pars dubitationis librorum antiquorum solvitur, et hoc supra literam vel sine litera. . . ." ("Most of the uncertainty of the old books is resolved, both in syllabic and in melismatic polyphony. . . .") ${ }^{44}$

The treatise by Lambertus largely restates information given by his predecessors.

Unde figura est representatio soni secundum suum modum, et secundum equipollentiam sui equipollentis; sed hujusmodi figure aliquando ponuntur cum littera, aliquando sine. Cum littera vero, ut in motellis et similibus; sine littera, ut in neumatibus conductorum et similia. Inter

[^135]enim figuras que sunt cum littera, vel sine, talis datur differentia: quoniam ille que sunt sine littera, debent prout possunt amplius ad invicem ligari. Sed hujus proprietas aliquando omittitur propter litteram his figuris associatam. ${ }^{45}$
("Hence, a note symbol represents a pitch with respect to its extent and to its agreement with its equivalent [part]. But such symbols are set down sometimes with text and sometimes without; with text, as in motets and similar things, without text, as in caudae of conducti and similar things. The difference between note symbols with text and those without is that those without must be ligated as much as possible; but this characteristic notational procedure is sometimes not observed because of text associated with these note symbols.")

Subsequently he maintains repeatedly that ligatures have unequivocal meanings, whether text is associated with them or not. ${ }^{46}$ Like the similar statement of Anonymous IV, this represents a significant break with pre-Garlandian notational concepts.

Lambertus's view of ligatures also crops up repeatedly in examples given by the St.-Emmeram Anonymous. ${ }^{47}$ In other ways, too, the latter's treatise is often derivative, despite its frequently fanciful language. For instance, the quoted excerpt from Lambertus's treatise appears with little change. ${ }^{48}$ One of the two passages dealing with the conductus reports the practice of some scribes and musicians to write perfect binary ligatures at points in motets and texted portions of conducti where properly they should have been imperfect. Although this is incorrect, the author fails to disapprove the practice because it is sanctioned by tradition and because the descending imperfect ligature looks awkward and unsightly. ${ }^{49}$ The second passage ${ }^{50}$ represents an interesting adaptation of formulations by Garlandia and Anonymous IV: ${ }^{51}$

[^136]Omnis figura simplex, et hoc propter litteram vel aliquam aliam superhabundantiam, quemadmodum in motellis et conductis cum littera et similibus, decet reduci ad figuram compositam in toto vel in parte secundum perfectiones modorum vel imperfectiones. Et hoc est quia modus sive maneries per figuram compositam et nonquam per simplicem cognoscitur et etiam compilatur. . . . ${ }^{52}$
("Because of text or some other addition, as in motets and in conductus [passages] with text and in similar cases, every single note is properly reduced to [i.e., taken as] a constituent of a ligature in full or in part, in accordance with the perfections and imperfections of the modes. And this is because mode [or manner] is recognized and, in fact, written by means of the ligature and never by means of the single note. . . .")

A summary of the cited passages, taken together with a synopsis of the various accounts of the system of rhythmic modes given by thirteenth-century writers, ${ }^{53}$ leads to the recognition of several major stages and aspects of the epochal rise and evolution of measured music.
I. Before the codification of the modal system about 1210,54 there * existed a system of melismatic notation in which binary, ternary, and quaternary ligatures for the first time conveyed rhythmic meaning. The earliest writer to summarize the few necessary rules governing this premodal notation was the author of the older part of the Discantus positio vulgaris, in a passage just preceding his mention of the

[^137]conductus. ${ }^{55}$ Anonymous IV confirms him and links the practice with Perotinus and Leoninus (or Leo), ${ }^{56}$ allowing us to date its rise as far back as the beginning of the last quarter of the twelfth century: "Istae regulae utuntur in pluribus libris antiquorum, et hoc a tempore et in suo tempore Perotini Magni . . et similiter a tempore Leonis pro parte, quoniam duae ligatae tunc temporis pro brevi longa ponebantur, et tres ligatae . . . pro longa brevi longa etc." And, he remarks elsewhere, the old composers "paucis modis utebantur iuxta diversitates ordinum supradictorum. . . ."57 ("They use those rules [those rules are used?] in a good many books of the older generation, i.e., in and from the time of Perotinus Magnus . . . and similarly from the time of Leo, for his part [to some extent?] because at that time two ligated notes stood for a breve and a long, and three . . . for a long, a breve, and a long, etc. . . . [The old composers] used few durations beyond the various above-mentioned arrangements.")
2. The rhythmic modes were also originally and fundamentally a system of melismatic notation that codified the ligature notation of the growing variety of rhythmic patterns. This can be concluded from the circumstances cited by Reimer ${ }^{58}$ and from the fact that all of Garlandia's examples of modal notation are given in ligatures (e.g., "tertius modus sumitur ita per figuram, scilicet prima longa et tres ligatae et tres et tres et tres. . . ."), ${ }^{59}$ including even the motetus voice cited on page 443 above. Likewise Anonymous IV explains modal notation as a system of ligatures. ${ }^{60}$ Particularly conclusive is the

[^138]above-mentioned concept of reduction, as well as the statement of the St.-Emmeram Anonymous that mode is conceived, written, and recognized by means of ligatures and never by means of single notes. The rhythmic modes originated as a conceptual system of configurational notation.
3. Musical rhythm was, thus, primary, and poetic verses were invented, in a manner reminiscent of the prosa, so as to have a sufficient number of syllables, to be adapted to each note of the upper voice(s) of preexisting melismatic discant polyphony (motet).
4. In view of Garlandia's cautionary remark quoted earlier, the assignment of specific durational significance to single notes (longa, duplex longa, brevis, and semibrevis) must have been a novelty when he wrote his treatise (presumably in the 12505 ). ${ }^{61}$ Two decades later, Anonymous IV still finds it noteworthy to observe that "the duration of single notes is unambiguous if they are well written." ${ }^{62}$ It is not long, therefore, before implicit or explicit evidence begins to appear that thinking in terms of individual ingredients replaces what might be called molecular or catenary concepts (patterned phrases). This is most plainly stated by, of all people, the St.-Emmeram Anonymous, in spite of his insistence on the old order. He justifies the sequence of his topics (single notes, ligatures, semibreves, modes, etc.) with the remark that any explanation of a complex system must begin with the smallest element. ${ }^{63}$ Correspondingly, Dietricus writes his examples of

[^139]the modes with single notes, ${ }^{64}$ and Lambertus gives first syllabic and then melismatic examples for eight of his nine modes. ${ }^{65}$ Finally, both Franco and Odington relegate the ligature notation of the modes ${ }^{66}$ to a chapter that comes well after their definition. ${ }^{67}$
5. The modal system is specifically applicable to motets and their melismatic models (clausulae, discant sections in organa). ${ }^{68}$
6. It has been claimed that the conductus, like the motet, was consistently regarded by thirteenth-century musicians as a species of discant and that, therefore, both were "among the genres governed by the rhythmic modes." ${ }^{69}$ But the subsumption of the conductus under the heading of discant, in fact, applies only to Franco and some of the many writers he influenced. ${ }^{70}$ That it was not Garlandia's view is borne out by the fact that all but two of his examples of modal notation, other than those he invented for Chapter II, are taken from Gregorian chant; the two exceptions-examples of imperfect modesare dupla: one being part of a conductus cauda, the other part of a motetus but also written sine littera. ${ }^{71}$ The only genres he refers to in his chapter on discant are organum (i.e., portions in discant style) and motet. ${ }^{72}$ In the inauthentic fifteenth chapter, "discantus" is specifical-

[^140]ly juxtaposed with "cantus planus." ${ }^{3 / 3}$ More revealing are the first two sentences of the copula chapter: "Dicto de discantu dicendum est de copula, quae multum valet ad discantum, quia discantus numquam perfecte scitur nisi mediante copula. Unde copula dicitur esse id, quod est inter discantum et organum. ${ }^{\prime 7}{ }^{7}$ That Anonymous IV also regarded discant as the polyphony resulting from the addition of a countermelody (discantus) to a preexistent melody (cantus planus, cantus ecclesiasticus) is demonstrated by the passage quoted previously. ${ }^{75}$
7. Notwithstanding the possibility that six of the meters of ancient poetry may have been the models for Garlandia's modal taxonomy, ${ }^{76}$ no medieval writer links poetry with the modes, not even Odington, whose elaborately systematic juxtaposition of quantitative poetic meters with perfect and imperfect modes serves only abstract didactic purposes. ${ }^{77} \mathrm{He}$ merely says, in effect, that the various rhythmic patterns of these modes are parallel to certain poetic meters, most of which are, in fact, not represented in the poetry of the time. There is, then, no evidence in the treatises that poetic meter served as cue for musical rhythm, modal or otherwise.

Although no medieval authors, with the exception of the St.Emmeram Anonymous (1279), specifically associate the syllabic portions of conducti with the modal system, their silence (except for the significant expression "super unum metrum" in the second part of the Discantus positio vulgaris) does not, by itself, disprove its applicability. Our knowledge of whether and to what extent modal rhythm governed such passages depends, therefore, on two factors: (1) the degree to which the notation in the sources provides incontrovertible proof one way or another and (2) our insight into medieval concepts of versification.

In evaluating the notational evidence, one must keep in mind, first of all, that the datable specimens of conducti show the species to have flourished for at least three quarters of a century. ${ }^{78}$ Moreover, the

[^141]preservation of some of them in either of two particular sources of the early fourteenth century shows that the conductus repertoire of the "Notre Dame School" was still alive nearly a century and a half after its earliest known specimens were written. The former period may be compared with the time span between, say, Haydn's Op. 17 and Schumann's Op. 41 or between 1826, the year in which Schubert completed his last symphony, and 1895 (?), the time when Mahler undertook to edit and arrange it. ${ }^{79}$ One cannot talk, therefore, about "the rhythm" of "the conductus," especially as momentous changes in the concept of rhythm and its notation occurred in the first half of the thirteenth century. ${ }^{80}$ The rhythms of the full modal system cannot be applied to compositions written earlier than those with which the system was first associated, i.e., before the first decade of the thirteenth century was well along. Moreover, the versions of Notre Dame conducti in such mensural sources as Heid, Sab, Da, Fauv, and $H u^{81}$ must be viewed with at least the same degree of caution regarding their reliability as, for instance, Czerny's version of The Well-Tempered Clavier. In fact, no mensurally notated source of a Notre Dame conductus can be automatically regarded as dependable evidence for its original rhythms (and, at times, melodies). To the example of fourteenth-century perversion of a thirteenth-century conductus (Crucifigat omnes) given in a recent article, ${ }^{82}$ can be added a plethora of further instances of inconsistencies and distortions. ${ }^{83}$

[^142]There are only three syllabic conducti that require modal reading, namely those pieces that are newly texted versions of caudae of other conducti. ${ }^{84}$ For compositions containing syllabic portions melodically identical with melismas, the rhythmic identity of the former passages to the latter has been advocated as self-evident. ${ }^{85}$ Undeniably this is a persuasive argument, yet, even in these cases, a degree of caution is advisable. ${ }^{86}$ Augmentation or diminution occurs not only in the tenors of two remarkable "St.-Victor" clausulae (nos. 25 and 35) as well as of Perotinus's Alleluia Y Nativitas (Juda) but in the conductus Soli nitorem, where there is melodic identity between one syllabic passage and two rhythmically different caudae (first mode and ternary longs). There is no evidence in the notation of this piece in the pre-Garlandian manuscript $F$ that the scribe of $H u$, the other source preserving this composition, was (or was not) correct in choosing the first mode for the syllabic passage.

But, quite apart from the often enormous problems attendant upon insistence on modal transcriptions of many syllabic conducti or portions of conducti, both Continental and English sources provide concrete evidence that the assumption of modal rhythm for such music is often unjustifiable. Qui servare puberem, an early conductus motet of the repertoire, is one of six that appear without tenor, i.e., as conducti, in $W_{1}$, which is the only Notre Dame manuscript to transmit no motets. A comparison of three versions of the endings of the first and last phrases ("Qui servare puberem / vagam claudere" and, particularly, "novo gaudet veterem / amicum pellere") shows clearly that the scribe of $W_{1}$ or his predecessor, evidently unaware of or unfriendly to the original nature of this piece as a motet, assigned it nonmodal rhythms, even though the rhythms of all three voices of the motet were originally modal (see Figs. 1-3). The notation of

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Figure I. Florence, Biblioteca Medicea-Laurenziana, Pluteus 29.1, fol. 101 ${ }^{\text {v }}$


Figure 2. Florence, Biblioteca Medicea-Laurenziana, Pluteus 29.1, fols. $\mathbf{3}^{81}{ }^{v}-82$


Figure 3. Wolfenbüttel, Herzog-August-Bibliothek, 677, fols. 115 (106)-115 ${ }^{v}$ (106")
the endings of the first and third phrases (see Ex. 1)-especially the double virgae, with or without plicae-and the setting of the penultimate syllable in the upper voice exclude the possibility of modal rhythm. The discant section and its motet version, however, begin

Example I
$W_{1}$, fol. $115^{r-v}\left(106^{r-v}\right)$

and end as shown in Example 2. Thus, the transmutation in $W_{1}$ of the motet into a conductus involved not only the elimination of the tenor but interpretation of the syllabic notation in accordance with the older traditions prevailing prior to the rise of the motet.

A number of English sources seem to indicate that the traditional nonmodal rhythm of conducti, like that of polyphonic chant settings, maintained itself for quite some time before yielding to the more modern "motetish" declamation involving breves as well as longs. Manuscript GB-Cjec I, which contains several Notre Dame conducti, one apparently insular conductus, as well as one complete and one fragmentary troped chant setting, uses virga notation for the syllabic portions of the conducti (as do most other English sources of conducti), but English mensural notation ${ }^{87}$ for the troped chant

## Example 2

(a) $F$, fol. $10{ }^{v}$
(b) $F$, fols. $3^{8 I^{v}-82^{5}}$


[^144]Ex. 2, cont.
(a)

(b)

settings, the upper voices of which behave like the upper voices of motets. In the English conductus repertoire, the rise of the fast modern declamation can be traced, because of the appearance of rondellus sections with text, in some of the more elaborate compositions, probably written in the third quarter of the century. The most striking example is the conductus Flos regalis (see Fig. 4). ${ }^{88}$ Not only does it show rondellus sections to have originated as special types of caudae, but it also consistently differentiates between the slow, presumably traditional virga notation and rhythm of ordinary passages cum littera and the English mensural notation of the texted phrases of the rondelli.

Ultimately the more modern declamation came to be preferred for the syllabic portions of English conducti as well. A particularly intriguing case is that of $I n$ te concipitur, one of four conductus settings in manuscript $G B-O b \quad 257 .{ }^{89}$ In contrast to the other three, it is written

[^145]

Figure 4. Oxford, Bodleian Library, Corpus Christi College 489, no. 22, fol. I
in English mensural notation, perhaps still something of a novelty for polyphony cum littera. A differently remarkable case is Equitas in curia, ${ }^{90}$ a conductus written in parts, quite possibly because its advanced declamation and the concomitant English mensural notation made it appear to the scribe like a motet. Other English conducti exhibiting the new advanced declamation and its notation, in part or throughout, are Quem trina polluit and In excelsis gloria, respectively. ${ }^{91}$

That neither accentuation nor versification determined the musical rhythm of a good many polyphonic conducti is proved by numerous compositions preserved in the Notre Dame sources. The prosody is

[^146]often irregular, indicating that for purposes of delivery, including, probably, spoken delivery, the syllables of poetry were regarded as neutrally equivalent and therefore subject to basically isochronous setting. This would account for the convention of syllabic treatment ${ }^{92}$ of traditional meters apparently prevalent until at least some time in the thirteenth century. ${ }^{93}$ Since the regular or irregular stress patterns formed by the words in nonquantitative (and, for that matter, in quantitative) versification were-and are-on the whole not bound to systematic quantification, there was, therefore, no regular prosodic scheme with which neumatic or melismatic ornamentation could interfere; hence, the latter could be applied in conducti wherever the composer saw the purely musical need for it.

The conductus Deduc Syon ends with the following quatrain:
scelus hoc ulciscere
veni iudex gentium
cathedras vendentium
columbas evertere.
Such heptasyllabic verses would seem tailor-made for first-mode delivery of their musical setting, as it appears in the Notre Dame sources, even though the pattern of the beginnings of the last two lines disturbs the expected trochaic regularity. As often happens, however, a cauda separates the penultimate from the final syllable, which, as in most cases, is allotted to the last note (see the syllable stroke preceding that note in both voices in Figure 5 ; the text scribe of $F$ erroneously omitted the syllable at that point, as is shown by all concordances). If the entire syllabic passage had been intended to be sung in first mode, with each phrase containing four beats, the last two notes preceding the cauda would have had to be ligated, as both are allotted to the penultimate syllable. Since they are, in fact, written as single notes (sine littera), they must be read as longs. There is probability verging on certainty, therefore, that all four phrases consist of eight beats and that the notes for each syllable are equivalent to one ternary long. A fair number of such cases can be cited, which are particularly persuasive when the final word is proparoxytonic.

[^147]Figure 6 presents a passage from Austro terris. For the phrase "potens datur carceri," the characteristic lengthening of the penultimate syllable vitiates any attempt at modal reading to accord with the apparently trochaic poetry. The musical setting of "ab erroris via flexus/ patris redit in amplexus" divides this distich into five phrases of eight, four, four, six, and eight beats, blithely separating in the process the last word of the first verse from its remainder-a fine example of medieval laceramento della poesia (Ex. 3). In a second excerpt

from the same conductus, the composer, rather than separating the last word from its verse, has united the first word of the third verse with the entire second verse. Again, as in Deduc Syon, the last syllable of the final word of the stanza is delayed for the sake of a long intervening cauda (Fig. 7). Here-and in many of the more elaborate

[^148]

[^149]Figure 6. Florence, Biblioteca Medicea-
Laurenziana, Pluteus 29.1, fol. 300


Figure 5. Florence, Biblioteca Medicea-
Laurenziana, Pluteus 29.1, fol. 337
conducti-one finds that, as in some of the works of the visual arts of the time, the ornamental impulse all but obscures the substance being ornamented, as if a bucket of music had been poured out over the words. The procedure in the conductus cum caudis is comparable to manuscript illumination with its growing profusion of elaborate historiated initials. ${ }^{94}$ All the music of a conductus decorates the words of the text, in conducti cum caudis often with such wonderfully indiscriminate luxuriance that the cauda seems to be wagging the dog.

Figure 8 presents a different case of the irrelevance of regular versification to the musical setting of the poetry. The verse scheme of the quoted passage from $O$ felix Bituria (presumably written in 1209 ) ${ }^{95}$ is entirely straightforward:

Mundus hic a crimine vixit et in mundo honores a limine salutavit mundo corde vixit munere mundus in profundo non submersus remige Christo fuit fundo tibi preces inclite pro me funde Christo ut sub recto tramite cursu curram isto.

It seems, however, that the particularly artful display of the technique of enjambment caused the composer to articulate the text as prose, perhaps to clarify the syntax.

Mundus hic a crimine vixit et in mundo, honores a limine salutavit; mundo corde vixit, munere mundus; in profundo non submersus remige Christo fuit; fundo tibi preces, inclite;
pro me funde Christo, ut sub recto tramite cursu curram isto.
(This man has lived free from crime and in this world has paid scant regard to honors;

[^150]

Figure 8. Florence, Biblioteca Medicea-Laurenziana, Pluteus 29.1, fol. $210^{\mathrm{r}-\mathrm{v}}$
he has lived with a pure heart, clean in office, and, with Christ as oarsman, he was not submerged in the depths; I pour out my prayers to you, famous man, pour them out for me to Christ, so that I may run that course along the right path.)

Instances of the composers' unconcern with verse schemes and accentuations abound in the repertoire. The evidence of theory and practice militates against modal reading of such passages, whether they appear in pre-Garlandian manuscripts or, more or less faultily, in mensural sources. Clearly, the convention of syllabic approach to traditional meters ${ }^{96}$ must have been strong and persistent enough to

[^151]make this treatment of poetry by medieval musicians seem natural. While the introduction of the measured breve in syllabic notation made musical reinforcement of accentual delivery of poetry more feasible and attractive, the many instances of disregard of prosodic proprieties in the polyphony of the thirteenth and fourteenth centuries show that only in the fifteenth and sixteenth centuries was this attitude replaced gradually by increasing word consciousness and the growth of metrical music. ${ }^{97}$

Two questions remain to be examined briefly. To what extent and how can the ambiguous pre-Garlandian notation of conducti be interpreted, and what, in the face of the evidence and in view of the often awkward and unmusical results, caused the Modaltbeorie to hold such largely unchallenged sway?

As it happens, two of the three syllabic conducti made from preexistent caudae can be dated (1219 and 1223). ${ }^{98}$ That this technique could have followed the rise of the Latin motet ${ }^{99}$ by about ten years seems quite plausible. Only with the motet did a reliable musical yardstick become available for the measurement and rigid modal

[^152]patterning of poetry that was not based on systematic arrangements of stressed and unstressed syllables but displayed rhyme, with identical accentuation, and number of syllables as the sole fixed elements of versification. "The evidence is quite strong that prior to . . . approximately the second decade of the thirteenth century and probably for some time thereafter most syllables in polyphonic genres other than the motet had the durational value of one perfect long, some more, none less. ${ }^{100}$ (This can also serve as a useful guideline for much nonGregorian monophony.) In that notation, two or more successive ligatures over one syllable should normally be viewed as sine littera. Some, at least, of the purely syllabic conducti, on the other hand, might well be suspected of being derived from preexisting melismatic material; even if such suspicions cannot be confirmed, modal reading may be appropriate, although the incidence of modes other than the first and perhaps third (or alternate third) is likely to be quite small. ${ }^{101}$ It is such cases, doubtless becoming more common in the third quarter of the century, to which the above-quoted (p. 449) passage in the treatise by the St.-Emmeram Anonymous would seem to be particularly applicable.

[^153]The Modaltheorie was applied first and foremost to the troubadour ${ }^{102}$ and trouvère repertoires. Its staunchest proponent, Friedrich Gennrich, was also particularly prominent in proclaiming its validity for the Minnelieder. With respect to the latter, it was laid to rest by Kippenberg ${ }^{103}$ and, with regard to the former, by Kippenberg and Hendrik van der Werf. ${ }^{104}$ Its hold on medieval musicology has been extraordinary from the beginning, causing not only a series of heated controversies about its authorship that lasted for decades but even a death by duel and an emigration. ${ }^{105}$ It is clear that modal rhythm spread from discant (i.e., discant passages in organa, clausulae, and motets) to gain some influence on the rhythmic facture of specimens of other repertoires; the limits of this influence remain to be explored and, if possible, to be more precisely determined. ${ }^{106}$ But the excessive claims established and extended for the Modaltheorie can only be adduced to a Cartesian penchant for order and system, anachronistically incompatible with the pre-Franconian evidence and in distressing conflict with the superb scholarly standards of its author. ${ }^{107}$ It is

[^154]essential to recognize that each musical and notational style-except for electronic music-carries within it its own particular levels of determinacy and indeterminacy. The inability of past medieval musicological scholarship to recognize the persistence of elements of indeterminacy in much of the music of the early High Gothic serves as an eloquent warning against freighting historiography with misleading preconceptions. ${ }^{108}$

[^155]
## XII

## The Earliest Phases of Measured Polyphony

The exploration of the rise and evolution of Western polyphony requires of twentieth-century observers and narrators unceasing caution and historical empathy. In dealing with the evidence of the musical manuscripts and coordinating it with the pertinent treatises, they must be ever watchful for patterns and habits of thought lying just under the notational or verbal surface. lnterpretive rigidity will often obscure nuances indicative of particular strands of thinking and will interfere with the historian's obligation to recognize evolutionary trends and phases suggested by the available evidence, while at the same time eschewing the twin traps of etiology and meliorism.

The inferences to be drawn from medieval commentaries on the practice of music-i.e., ars musica (musica practica), as opposed to scientia ( $m$ usica theorica or speculativa)-depend to a considerable extent on their nature as prescriptive systematizations of the state of the art, on the one hand, or as reports of particular practices, often of individual composers, on the other. Hans Heinrich Eggebrecht and Fritz Reckow have illuminated the appearance of the latter phenomenon in the thirteenth century. ${ }^{1}$ The former type, redounding to the benefit of lesser composers, is illustrated by such treatises as the Musica enchiriadis, Guido's Micrologus, much of Johannes de Garlandia's treatise (especially the onerously thorough theory of its eleventh chapter) or, for that matter, parts of J.-P. Rameau's Traité de l'harmonie and A.B. Marx's Lehre von der musikalischen Komposition. Representatives of the latter type, which more often than not is intended to instruct performing musicians, are the treatises of Anonymous IV and Robertus de Handlo (or, with far greater propagandistic intent, Giulio Monteverdi's Dichiaratione). Such authors are not theorists but reporters who gather their observations from the workshop, generally aiming to acquaint their readers with the latest advances of the decreasingly anonymous avant-garde. ${ }^{2}$ They often turn out to be our most valuable informants regarding practices not-or not yet-standardized systematically. Contrariwise, incautious and often
anachronistic reliance on the theorists can account for serious misinterpretations of the practical sources.

Eggebrecht has rightly pointed out that "indeed, the history of medieval music is essentially history of notation: each compositional nov-elty-complemented by verbal theory-is largely the consequence of notational advances, evident at first in practical sources (as in the case of modal notation or of the ars nova). ${ }^{13}$ Regrettably, it is precisely the issue of rhythmic modal notation, as transmitted by the "verbal theorists," that has often led to misunderstandings of flexibilities and idiosyncrasies in the leading "Notre Dame" composers' music and its notation. Friedrich Ludwig has asserted, in a long, glowing passage remarkable as much for intensity as for complexity, that it should not surprise us that the music composed in France, primarily in Paris, during the several decades around 1200 was incapable of theoretical reduction to rules. He recognized that the rhythmic modes explained by the theorists, conveying points of view that reflected a more advanced stage of motet composition, were "merely a few patterns that . . . give not even the faintest notion of the wealth of Perotinus's rhythmic language, let alone the still more flexible rhythmic idiom of Leoninus. The theorists call these rhythmic patterns modi."4

As is so often the case, Ludwig's observations here have remained unexceptionable. Aside from some stray remarks in the treatise of Anonymous IV, ${ }^{5}$ no treatise has come down to us that reflects the rhythmic modes and their notation as practiced during the first half of the thirteenth century and as evidenced primarily in manuscripts $W_{1}$ and $F .{ }^{6}$ The earliest informant is Johannes de Garlandia, whose treatise ${ }^{7}$ (ca. 1250), because of its introduction of the concepts of proprietas and perfectio, ${ }^{8}$ exhibits a somewhat later orientation. New symbols indicating the absence of propriety provide clarification of the second rhythmic mode, which had begun to appear sometime in the first decade of the century, ${ }^{9}$ while the absence of perfection is signified by other new notational devices intended largely to facilitate the recognition of modal rhythm in polyphony cum littera; for instance, an extension of the normal syllabic articulation of a modal pattern is to be indicated with an imperfect ligature (ex. 2.1). ${ }^{10}$

## Example 2.1



One anomaly of Garlandia's notational system is that the ternary ligature cum proprietate et perfecta, whose components are unequivocally said to signify long, breve, long, ${ }^{11}$ is nonetheless read differently in certain modal situations. ${ }^{12}$ In addition to demonstrating two methods of notating the sixth mode, by means of plicated ligatures, as subdivisions of and compatible with either the first or the second mode, Garlandia reports, with disapproval, an older method well known from the musical sources. It consists of a string of ternariae cum proprietate et perfectae attached to an initial quaternaria. Here no notes are conceived as plicated longs, but all are plain breves (except, in a first-mode context, the final one). The notation of the third mode also requires the first two notes of perfect ternary ligatures with propriety to be read as breves, albeit not breves rectae (of one tempus each), but in each case a brevis recta followed by a brevis altera (of two tempora). We do not know whether Garlandia was at all uneasy about this systemic irregularity, since he fails to acknowledge it, quite possibly because his notational system contains no symbol for a perfect (i.e., complete) ternary ligature whose first two notes are breves. ${ }^{13}$

In attempting to explain these irregularities, one must keep in mind that the first two notes of all ternariae cum proprietate et perfectae are short in both the third and the sixth modes. The older part of the anonymous Discantus positio vulgaris, ${ }^{14}$ which affords a few glimpses intoa premodal stage of measured discant and its notation, contains this relevant passage:

Whenever two notes are bound in discant, the first is a breve and the second is a long. . . . When three notes are bound following a rest, the first is a long, the second is a breve, and the third is a long [i.e., $\downarrow$ d/]. If the three notes follow a long, the first two are breves and the third is a long. The last of these is extra long if, in turn, it is followed by a long. If four notes are bound, all of them are short [except, presumably, the last one]. If, however, there are more than four notes, they are not, as it were, subject to rule, but are executed at pleasure. ${ }^{15}$

One remark in this passage is puzzling because from a modal point of view the two short notes of a ternary ligature preceded by a long would have either to be unequal (as in the third mode) or to become semibreves. The former alternative was unknown to the author, as modal patterns were yet to be formulated, ${ }^{16}$. while the latter is contradicted not only by the use of the term breves, but also by the author's statement in a preceding paragraph that "beyond measure refers to those things measured
by less than one tempus or more than two tempora. For example: semibreves, which are written like this: ${ }^{*+4 . " 17}$ It would seem, then, that somehow the combination of a long and two breves might at one time have been considered as equivalent in duration to that of a long and one breve, and that in such cases the two breves were not precise semibreves.

In order to clarify this puzzling inferential proposition it will be helpful to recall later instances of flexibility and imprecision in the articulation and notation of short note values. It is well known that until the early 1270 s either two or three equal semibreves, at first terminologically undifferentiated from the concept of breve, could subdivide a breve. Triple subdivision of the breve, becoming fairly common in the second half of the century (e.g., in manuscript $C l$ ), is still rare in the motet fascicles of $F$ and $M a$; it appears somewhat more frequently in the third and fourth motet fascicles of $W_{2}{ }^{18}$ The only writer to report the division of the breve into either two halves or three thirds is Anonymous IV, though he applies the term semibrevis only to the bipartition of the breve. ${ }^{19}$ A few years later this ambiguity is eliminated by the new notion of the semibrevis minor and maior. ${ }^{20}$ Similarly, the newly codified semibreve soon spawned its progeny, the minim, as composers gradually increased the equal subdivisions of the breve (brevis recta) from three to four and more. This process finally reached a maximum of nine and thereby, in effect, produced prolation, though the ingredient notes were at first still referred to as semibreves, just as in the thirteenth century semibreves had at times been called breves. ${ }^{21}$

The passage in the Discantus positio vulgaris cited earlier seems comprehensible only if analogous circumstances are seen to have obtained for some time after durational differentiation of notes had begun to arise in discant. Evidently the didactic codification of discant permitted each of the isochronous cantus-firmus notes to sustain two or, secondarily, three notes in the upper voice. In either case the note that coincided consonantly, as a rule, with a given note of a chant melisma was long, i.e., longer than short. If one note intervened between two such consonances, its brevity constituted half of the preceding note. If two notes intervened between two consonances, each of them apparently was worth half of the first note. Either way the long was twice as long as the breve. (Occasionally, three equal breves could be set over a note of chant by means of an initial quaternaria or an equivalent coniunctura.) This relatively flexible system is superimposed on and sustained by the immeasurably even notes of the chant. Modern performances of such discant that resort to precisely measured semibreves would cause the rhythmic progression of both voices to be too sharply defined. The likely tempo of performance (ca. MM=108 for each note of chant) would, in any case, have made the notion of the semibreve redundant and
excessive. ${ }^{22}$ To be sure, the author of the Discantus positio vulgaris mentions and briefly describes the semibreve in a closely preceding passage. But in view of the cited definitions of ligatures consisting of three or more notes, this notice of the semibreve seems curiously inorganic and inconsistent with the stipulations that the values contained in all ligatures of up to four notes are either long or short as indicated, and that ligatures containing more than four notes are performed ad libitum. ${ }^{23}$

Apparently, then, discant sections in such sources as the Codex Calixtinus ${ }^{24}$ or, quite possibly, the $W_{1}$ version of the Magnus liber organi would at one time have been performed as given in examples 2.2 and 2.3.25 The organa appended to the Vatican organum treatise also contain applicable discant polyphony. ${ }^{26}$ In this connection the occasional notation of continuous breve motion in manuscript $F$, though differing from the traditional irregular notation of the sixth mode reported by Garlandia, is particularly suggestive (exx. 2.4a and 2.4b). ${ }^{27}$

Example 2.2 Codex Calixtinus, fol. 189v


Example $2.3 W_{l}$, fol. 43 (37)


Example 2.4
a. F, fol. 128 v (Dp. 2278)



Like other treatises, ${ }^{28}$ however, even the first half of the Discantus positio vulgaris, in the less than pristine version Hieronymus de Moravia has transmitted, seems in some ways heterochronically inconsistent. Thus the text stipulates that "all of the notes of the discant are measurable in terms of the correct breve and the correct long,". but it then continues: "Thus for every note in the cantus firmus there must be at least two notes, a long and a breve-or some equivalent of these, such as four breves or three breves with a plica. ${ }^{\prime \prime 29}$ Indeed, the equivalent of a long note is two breves, which in the absence of semibreves are followed by two breves (or one). ${ }^{30} \mathrm{On}$ this basis the passage in example 2.5 might be hypothesized for a discantus voice. This kind of phenomenon cannot have survived past the time when Perotinus began writing polyphony for three voices (presumably the 1190s). The notation given in example 2.5 would then have had to be conceived for performance in either of the two solutions given in examples 2.6 and 2.7.

The rhythms of example 2.6 evidently are earlier than those of example 2.7, which includes the longa ultra mensuram. ${ }^{31}$ Discant passages exhibiting these newer rhythms in the upper yoices usually are supported by double longs in the tenor. Such discants are exceedingly rare in the generally oldest stylistic version of the Magnus liber preserved in $W_{r}{ }^{32}$ That these more "measured" passages represent a relatively modern (post-Leoninian) style is also indicated by their frequent occurrence among the substitute snippets collected in $F$ (fols. 178-83v). Furthermore, a good many organal passages as well as discant portions whose tenor moves in single longs in $W_{1}$ exhibit double long tenor notes in $F$

Example 2.5


Example 2.6


Example 2.7

and $W_{2}$, sometimes involving variation technique in the duplum (ex. 2.8a). Often the modernizations also concern changes in the counterpoint in order to eliminate unsupported fourths over the tenor (see $F$ and $W_{2}$ in ex. 2.8b). More extended specimens of such variational revision occur in O1 ("et Jherusalem") and O 10 ("paraclitum dabo"). The same technique, which also crops up in the abbreviate substitutes, ${ }^{33}$ is most strikingly displayed in a Cambridge concordance of the Alleluia Dies sanctificatus a3 (GB-CuFf.2.29, fol. 1v). ${ }^{34}$ The presumably earliest appearances of the modern rhythms occur in the organa tripla, only a handful of whose tenors do not contain double longs or rhythmic patterns, and in Perotinus's two organa quadrupla. At times both the older and the more recent rhythms, involving the same or similar ligations, appear in the same composition, as, for instance, in Perotinus's Sederunt (exx. 2.9 and 2.10). ${ }^{35}$ The two organa quadrupla (Viderunt and Sederunt) are premodal; and in transcription of repertories such as the organa tripla, rhythmic patterns other than what Franco ultimately called the first and fifth modes (i.e., first, alternate third, and sixth) must also be eschewed, unless the ligature notation consistently and ineluctably indicates the second mode. (For instance, a constellation of one binaria at the beginning of a phrase followed by several others should not be taken to indicate the second mode, unless a ternaria forms its conclusion.)

It is particularly significant that the rhythm $d . d \delta d$, written as a single note followed by a ternaria, as at the beginning of each of the phrases in example 2.10, was defined in the years around the turn of the *

Example 2.5 (cont.)


Example 2.6 (cont.)


Example 2.7 (cont.)

or $d$.

Example 2.8
a. $W_{l}$, fol. 21 (17); $F$, fol. 81 and $W_{2}$, fol. $55 v$

b. $W_{1}$, fol. $30(26) ; F$, fol. 107; $W_{2}$, fol. 70


Example 2.9 Ma, fol. 17


Example $2.10 \quad$ Ma, fol. 19

century as a longa ultra mensuram plus two breves plus a long. ${ }^{36}$ The crucial question why the second note, the first of the ternaria, was not considered a long, like the first and third notes in the configuration S is answerable only if one recognizes that originally it must have had less length (as shown in examples 2.2 and 2.3) than it was bound to begin to receive (except in passages like that of example 2.10) by the last decade of the twelfth century. The patent illogic of designating and writing a long as a breve (even in isolated remnant cases of syllabic notation in so late a source as the Montpellier manuscript), the way the antepenultimate and penultimate notes in certain coniuncturae were performed, and the rise of the second mode must account for the gradual conversion of the two "breves" to the paired breves (brevis recta and brevis altera) ${ }^{37}$ characteristic of the next, the third mode. Gradually replacing the "alternate third mode," it presumably became standardized in the clausula repertory, in which by ca. 1210 the pre-Garlandian (Perotinian) modal system can be seen to be completely represented (except, of course, for the fourth mode). ${ }^{38}$ In the third mode the succession of the durational values of one tempus and two tempora could and, in fact, had to continue to be conceived as two breves, the second of which could not in any case be a long, since its position before another long would require it to be longior longa. (These circumstances, arising from the beginnings of measured discant, explain the curious nature of the third mode as well as the more than tercentenary notational tradition of alteration.) Apparently Garlandia's notation of the third mode was due not only to his system's inability to provide for a "proper" ligature (breve, breve, long), but also to the prehistory of the third mode, ${ }^{39}$ which had made the attendant, premodal ternaria notation as strict a convention as that of the binaria (short, long). ${ }^{40}$ By the 1190s a ternary framework for the rhythmic values of polyphony had necessar-
ily come into being, and it accommodated the traditional concept of a longa followed by two breves either with the longa reduced to brevity (irregularly notated sixth mode) or with the three notes protracted to twice their previous value. ${ }^{4}$ In both cases the ligature notation remained unchanged, ${ }^{42}$ and the ternary long of the new third mode continued to be regarded as the element ultra mensuram. Only Franco, aiming at precision and fixity, definitively extended mensurability from one tempus and two tempora to three, making his concept of the perfection the new standard.

The practices inferred here from the Discantus positio vulgaris would seem to have arisen sometime in the third quarter of the twelfth century. The matrix from which they evolved can be found in the stylistic conventions of the polyphony described in the "London" treatise and particularly in the "de LaFage" treatise. ${ }^{33}$ Both discuss discant and organum in terms of strict note-against-note style on the one hand, and a melismatic upper voice on the other. The latter technique is also described in the prose part of the earlier "Milan" organum treatise, though only in its function as a modest cadential flourish in traditional note-against-note counterpoint. ${ }^{44}$ The anonymous author of the de LaFage treatise is particularly emphatic in his assertion that, with the exception of such cadential situations, discant must be note against note. As Eggebrecht suggests with his customary acumen, ${ }^{45}$ the stringent prohibition against sullying the purity of discant with organal excesses could be seen as a conservative's caveat against the troublesome practice, evident well before early Notre Dame discant, of setting two or more notes in the discant against any given note in the chant, ${ }^{46}$ the more so as his description of organum recalls the ornate style of the Magnus liber, to be reined in by subsequent revisions. ${ }^{47}$ The contrapuntal practices discussed by the author must have arisen during the first half of the twelfth century.

The indications that the de LaFage treatise reflects polyphonic conventions of ca. 1150 are contradicted by the argument that the author, evidently a Cistercian, could not have written it before the early thirteenth century and that it functioned "as a theoretical source for Cistercian ideas about two- and three-part polyphony, discant, and organum during the thirteenth and fourteenth centuries. ${ }^{\prime 48}$ The main rationale for these conclusions, apart from the lateness of the sources, is the fact that the treatise mentions three-part polyphony once as note-againstnote discant for three voices (chant and two discants), and another time
as a mixed genre, i.e., discant with an added organal voice. But as Eggebrecht has observed, the kinds of three-part polyphony described by the de LaFage Anonymous are the only ones that neither require nor reflect mensuration, ${ }^{49}$ which, as a French author, ${ }^{50}$ he would surely have commented upon if he had written in the thirteenth century. His wellknown description of organum-mira quadam flexibilitate-helps to confirm the nonmensural nature of polyphony composed up to that time. His three-part polyphony is therefore pre-Perotinian, and in all probability, given the notational evidence of the practical sources, his description of two-part polyphony predates Leoninus's Magnus liber, which is likely to have been written ca. 1180, ${ }^{51}$ some years after the first appearance of Parisian (Notre Dame) polyphony. ${ }^{52}$ On a previous occasion I mistakenly assumed that the recently proposed late date for the treatise was at least in part based on the apparent Cistercian advocacy of ornate polyphony, ${ }^{53}$ for which the earliest practical source (from Meaux Abbey in Yorkshire) comes from the late thirteenth century, ${ }^{54}$ and also on the unlikelihood that any sort of polyphony was tolerated by the Cistercians in the first half of the century. By the late l200s, certainly, many of the original Cistercian austerities were relaxed and disregarded. ${ }^{55}$ But while in the third quarter of the twelfth century, the probable period in which the de LaFage treatise was written, polyphony was surely still seen as incompatible with Cistercian practices so soon after the reforms of Bernard de Clairvaux, ${ }^{56}$ no evidence contradicts the view that the original manuscript, though belonging to the Cistercian chant tradition of the mid-twelfth century and containing information on polyphonic elaboration of chant, could have been addressed to a. non-Cistercian community. ${ }^{57}$ Not only does the treatise reflect preLeoninian practices, but no known facts compel a later dating. It should not be cited, therefore, to support statements beclouding the persuasive evidence of "the progressive development of twelfth-century polyphony." ${ }^{58}$

Quite to the contrary, the development of musica mensurata from its beginnings to the early fourteenth century presents a clear picture of evolutionary consistency that it would seem tendentiously wayward to denv. Evidently, once the restriction of discant to note-against-note counterpoint was relaxed, the steady progression of each chant note was durationally defined by two or three notes in the counterpoint, either a long and a short or a long and two shorts, both configurations taking up the same amount of time. (It could also support the longior longa [longa ultra mensuram] or three equal breves; see the excerpt from the Discantus positio vulgaris quoted on p .43 above.) This development would have occurred before the 1170 s, when presumably Leoninus
began to write his Magnus liber. The somewhat flexible values of long and breve were subsequently replaced by a system in which only one brevis (recta) could be half of one longa (recta); this must have happened no later than the 1190s and probably earlier, though it is impossible to say whether it was reflected by the earliest version of the Magnus liber. Its pre-Perotinian organal style doubtless continued to be fundamentally free in its rhythmic flow, though later interpretations and redactions increasingly reshaped organal dupla toward the mensurability characteristic of discant. ${ }^{59}$ With the further rhythmic development of discant, both the third and sixth modes of the new system, which arose in the first decade of the thirteenth century, reflect in their ambiguous notations (especially in Garlandia's system) the difficulties of assimilating the earlier flexibilities. (On the whole, modal rhythm, an aspect of discant elaboration of chant melismas, did not affect the syllabic portions of most conductio until the second half of the century, when the genre was beginning to decline.) The Franconian codification of the semibreve and its subsequent proliferation, the neutralization of the modal system by Franco's concept of the perfection and by his notational reform, and the appearance in the later thirteenth century of imperfect mensuration and its subsequent didactic recognition led to the modern binary as well as ternary system of integrated, hierarchically ordered durational values established in the 1320s-truly an ars nota.

## Notes

1. See Fritz Reckow, ed., Der Musiktraktat des Anonymus 4, Beihefte zum Archiv für Musikwissenschaft, nos. 4-5 (Wiesbaden, 1967), 2:11-15, and the references given there.
2. On an earlier occasion I had referred to them as "teacher-reporters ('theorists')"; see communication in Current Musicology 9 (1969): 213.
3. Hans Heinrich Eggebrecht, "Gedanken über die Aufgabe, die Geschichte der Musiktheorie des hohen und späten Mittelalters zu schreiben," in Frieder Zaminer, ed., Üher Musiktheorie, Veröffentlichungen des Staatlichen Instituts fürMusikforschung, Preussischer Kulturbesitz, vol. 5 (Cologne; 1970), 17. Of course, whether compositional novelties are consequences of notational advances or vice versa is highly debatable. For the time since the later twelfth century the term "history of notation" must be qualified as "hiṣtory of the notation of rhythm."
4. Friedrich Ludwig, Repertorium organorum recentioris et motetorum Detustissimi stili, vol. 1, Catalogue raisonné der Quellen (Halle, 1910), 50 . Ludwig does not explicitly recognize premodal rhythmic notation. Though it is a truism, the warning should be emphasized that neither later sources nor later commentaries must be used uncritically for the reading of earlier compositions or versions of compositions.
5. Reckow, ed., Der Musiktraktat 1:49-51.
6. Wolfenbüttel, Herzog-August-Bibliothek, 677; and Florence, Biblioteca MediceaLaurenziana, Pluteus 29.1. W: (Wolfenbüttel, Herzog-August-Bibliothek, 1206), the third of the major "Notre Dame" manuscripts, already evinces a few more progressive notational features.
7. Johannes de Garlandia, De mensurabili musica, ed. Erich Reimer, Beihefte zum Archiv für Musikwissenschaft, nos. 10-11 (Wiesbaden, 1972).
8. Actually, the noun perfectio appears only once; everywhere else the termGarlandia uses is the participial adjective perfectus (see Garlandia. De mensurabili musica 2:76; also Wolf Frobenius, "Perfectio," Handwörterbuch der musikalischen Terminologie (Wiesbaden, 1973], 1-2).
9.Cf. Reckow, "Proprietas und perfectio," Acta Musicologica 39 (1967): 123;Garlandia, De mensurabili musica 1:53; Ernest H. Sanders, "Conductus and Modal Rhythm," Journal of the American Musicological Society 38 (1985): 449 and $n .54$.
9. Cf. Reckow, "Proprietas und perfectio," 127-28. The example is designed in accordance with applicable Garlandian precepts, since there are no sources exhibiting Garlandian notation. The manuscript most closely related to it is Ba (Bamberg, Staatliche Bibliothek, Lit. 115 [olim Ed. IV.6]). Not only the rests, however, but also the writing of the binaria cum proprietate et imperfecta as if it were a binaria sine proprietate et perfecta (e.g., fol. 14 v , penultimate staff of the motetus voice) differ from Garlandia's system. The notation of rests is taught only by Lambertus. Cf. Garlandia, De mensurabili musica 2:65-66.
10. Garlandia, De mensurabili musica 1:50 and 52.
11. For a detailed treatment of this issue, see Sanders, "Consonance and Rhythm in the Organum of the Twelfth and Thirteenth Centuries," lournal of the American Musicological Society 33 (1980): 275-77.
12. It cannot, since the ternaria sine proprietate denotes breve, long, breve, in contrast to the rhythm of the proper ternaria; cf. Reckow, "Proprietas und perfectio," 122. The Sowa Anonymous, who, like Anonymous IV (Reckow, Der Musiktraktat 1:54 and 56), follows Garlandian precepts, applies the principle of imperfection of ligatures exceptionally to the melismatic notation of the sixth mode (Heinrich Sowa, ed., Ein anonymer glossierter Mensuraltrakt 1279 [Kassel, 1930], 88-89). Only Franco's system finally eliminates all these incongruities.
13. Hieronymuș de Moravia, Tractatus de musica, ed. Simon Cserba, Freiburger Studien zur Musikwissenschaft, no. 2 (Regensburg, 1935), 189-92; cf. Sanders, "Consonance and Rhythm," 266 n. 2.
14. "Quandocumque due note ligantur in discantu, prima est brevis, secunda longa, ... quando autem tres, si pausa precedit, prima est longa, secunda brevis, tercia longa; si nota longa precedit, prime due sunt breves, tercia longa, quam si nota longa sequitur, tercia erit longior longa. Si vero quatuor ligate fuerint, omnes sunt breves. Quodsi plures quam quatuor fuerint, tum quasi regulis non subiacent, sed ad placitum proferuntur" (Moravia, Tractatus de musica, 190). With the exception of the bracketed insertions, the English translations of all quoted passages are taken from Janet Knapp, "Two Thirteenth-Century Treatises on Modal Rhythm and the Discant," Journal of Music Theory 6 (1962): 203.
15. See also his statement, quoted more fully below (note 29), that "all notes of discant are measurable by means of the simple breve and the simple long."
16. "Ultra mensuram sunt que minus quam uno tempore et ampliori quam duobus mensurantur, ut semibreves, que sic figurantur: $\bullet \leftrightarrow *$ (Moravia, Tractatus de musica, 190). The fact that three semibreves happen to be given must not, of course, be taken to indicate a Franconian subdivision of the breve.
17. For $F$ and $W_{2}$ see note 6 above. $C l=$ Paris, Bibliothèque Nationale, n.a. it. 13521; $\mathrm{Ma}=$ Madrid, Biblioteca Nacional, 20486.
18. Reckow, Der Musiktraktat 1:45.
19. For the most thorough discussion of this topic, see Wolf Frobenius, "Semibrevis," Handü̈rterbuch der musikalischen Terminologie (Wiesbaden, 1972). Max Haas's doubts that Franco "means precisely discernible [fassbäre] differences of semibreve lengths"
("Die Musiklehre im 13. Jahrhundert von Johannes de Garlandia bis Franco," in Frieder Zaminer, ed., Die mittelalterliche Lehre von der Mehrstimmigkeit, Geschichte der Musiktheorie, vol. 5 [Darmstadt, 1984], 141-42 and n. 210) seem incomprehensible. Franco treats semibreves, melismatic and syllabic, precisely in analogy to the significance of breves in third mode.
20. See Sanders, "Petrus de Cruce," New Grove Dictionary of Music and Musicians 14:598-99.
21. See also note 16 above.
22. As Fritz Reckow has pointed out ("Proprietas und perfectio," 137 n. 81), the passage defining the rhythmic meanings of ligatures, more than any other in the treatise, is likely to reflect the earliest, i.e., premodal, state of rhythmic notation.
23. Santiago de Compostela, Biblioteca de la Catedral (unnumbered).
24. These circumstances, as well as the variancy of the sources, explain the diffidence with which scholars generally have approached the notion of producing a critical edition of the Magnus liber organi. For a Gesamtausgabe, which would rightly be regarded as binding, we know both too little and too much. We cannot even tell to what extent the original organa are accurately represented in the manuscript copies. There is no reliable way to bring the totality of these chant settings into focus as an opus.
25. See Frieder Zaminer, Der vatikanische Organum-Traktat (Ottob. lat. 3025), Münchner Veröffentlichungen zur Musikgeschichte, vol. 2 (Tutzing, 1959); lrving Godt and Benito Rivera, "The Vatican Organum Treatise-A Colour Reproduction, Transcription, and Translation," in Gordon Athol Anderson (1929-1981) In Memoriant, voi. 2 (ítenryville, Penn., 1984), 264-345. Style and technique of these organa represent a stage of polyphony developed further in Leoninus's Magnus liber organi; cf. Hans Heinrich Eggebrecht, "Die Mehrstimmigkeitslehre von ihren Anfängen bis zum 12. Jahrhundert," in Zaminer, Die mittelalterliche Lehre, 67-68.
26. See also the excerpt from Benedicamus no. 3 quoted in Sanders, "Consonance and Rhythm," 273.
27. E.g., that of Garlandia; cf. Sanders, "Consonance and Rhythm," 274-85.
28. "Omnes autem note discantus sunt mensurabiles per directam brevem et directam longam. Linde sequitur quod super quamlibet notam firmi cantus ad minus due note, longa scilicet et brevis vel aliquid his equipollens, ut quatuor breves vel tres cum plica brevi proferri debent" (Moravia, Tractafus de musica, 190-91).
29. The statement that four breves can take the place of a long plus a breve is not strictly consistent with the assertion that all notes of discant are measurable by means of the regular breve and the regular long.
30. Sanders, "The Medieval Motet," in Wulf Arlt, Ernst Lichtenhahn, and Hans Oesch, eds., Gattungen der Musik in Einzeldarstellungen: Gedenkschrift Leo Schrade (Bern, 1973), 501-2.
31. There are at most five (only one of them in the Magnus liber de antiphonario, which may well have been the first of the two books Leoninus composed): O 28 ("vester venturus"); M 23 ("[Ascen]dens; in altum; dona"); M 32 ("quem toltus]"); M 42 ("IJudi]ca[bunt]") and almost certainly M 54 ("mea"), William G. Waite's transcriptions notwithstanding (The Rhythm of Twelfth-Century Music [New Haven, 1954]). Through a fluke in transmission the tenor of the cited discant passage in $\mathbf{M} 32$ employs double longs in $W_{1}\left(\right.$ fol. 38 v [31vi), but single longs in $F$ (fol. 123) and $W_{2}$ (fol. 77v). As Craig Wright has shown, manuscript $F$ reflects the earliest state of the Magnus liber organi with respect to liturgical repertory, but not to musical style (Music and Ceremony, at Notre Dame of Paris, 500-1500 [Cambridge, 1989], 271); as to the latter, the priority of $W_{1}$ among the extand versions is unchallenged.
32. See Sanders, "The Medieval Motet," 505-6, and, especially in idem, "Sine littera
and cum littera in Medieval Polyphony," in Edmond Strainchamps, Maria Rika Maniates, and Christopher Hatch, eds., Music and Civilization: Essays in Honor of Paul Henry Lang (New York, 1984), 216 n .3 and 218 n .6 , regarding matters of chronology and evolution of styles and techniques in this repertory. The tendency toward a more "measured" tightening of style is also demonstrated by the abridgment, through omission and revision, of the organum triplum Sancte Germane (possibly by Perotinus) in Mo (Montpellier, Faculté de Médecine H196) and by the abridged dupla of the Magnus liber in a manuscript first reported by Kurt von Fischer, "Neue Quellen zur Musik des 13, 14, und 15 Jahrhunderts," Acta Musicologica 36 (1964): 79-97, specifically 80-82. At the conference on Medieval and Renaissance Music held in London in August 1986 John Bergsagel presented evidence of a similar manuscript, fragments of which are preserved in the Royal Library in Copenhagen.
33. Heinrich Husmann, failing to recognize the import of the unambiguous notation, squeezed his transcription of the passage ("nobis") into the time frame it fills in the versions preserved in $W_{1}$ and $F$ (Die drei- und vierstimmigen Notre-Dame-Organa, Publikationen älterer Musik, vol. 11 [Leipzig, 1940; reprint ed., 1967], 23-24).
34. Example 2.9: The other two concordances ( $W_{1}$, fol. $3 \mathrm{v}[1 \mathrm{v}] ; F$, fol. 4-4v) are identically notated. Similar passages occur in Perotinus's conductus Salvatoris hodie and in many of the presumably Perotinian abbreviation substitutes (cf. Sanders, "The Question of Perotin's Oeuvre and Dates," in Ludwig Finscher and Christoph-Hellmut Mahling, eds., Festschrift für Walter Wiora [Kassel, 1967], 242).

Example 2.10: The first four notes of the duplum and quadruplum voices are written as quaternariae in two of the three concordances (W1, fol. 5 [3]; F, fol. 6; W2, fol. 2), and those of the triplum in one of them. The first ligature of each of the last threeordines of the quadruplum is written as a quaternaria in two or three of the concordant manuscripts; the scribe of $W_{2}$ even wrote its last phrase as a plicated quaternaria followed by a binaria. (Ludwig's reason for his relatively late dating of Ma [Repertorium, 138-39] was, in effect, refuted by Husmann; see Sanders, "The Medieval Motet," 524 and n. 89.) Another example of Garlandia's irregular notation of the sixth mode is a passage in Perotinus's Alleluia Posuiadiutorium, cited by both Johannes de Garlandia (De mensurabili musica 1:56) and Anonymous IV (Reckow, Der Musiktraktat 1:56). It is well known that there are many such passages in the discant portions of the Magnus liber organi, especially the version in $W_{1}$ (cf. Sanders, "Consonance and Rhythm," 275).
36. For the evidence, see Sanders, "Duple Rhythm and Alternate Third Mode in the Thirteenth Century," Journal of the American Musicological Society 15 (1962): 278-82.
37. Though, as Garlandia puts it, the third, fourth, and fifth modes are "ultramensurabiles," the expression "brevis in ultra mensuram" for the second breve in each pair of breves in this mode (Haas, "Die Musiklehre," 138) does not occur in the treatises. Garlandia (Paris version; see De mensurabili musica 1:92), Anonymous IV. (Reckow, Der Musiktraktat 1:26, 38, and 44), Anonymous VII (both versions; for the Paris version see Charles-Edmond-Henri de Coussemaker, Scriptorum de musica, vol. 1 [Paris, 1864], 379a), and the Sowa Anonymous (Sowa, Ein anonymer glossiester Mensuraltrakt, 26, 28, 63, and 86) specifically assert that it contains two time units, though Garlandia (De mensurabili musica 1:38), Anonymous IV (Reckow, Der Musiktraktat 1:76), and the Sowa Anonymous (Sowa, Ein anonymer glossierter Mensuraltrakt, 76), like the author of the Discantus positio oulgaris (see p. 43 above), also still regard anything other than the longa recta and the brevis recta as "beyond measurement." Obviously, however, the notion of a value of three time units being "ultra mensuram" is, in effect, residual terminological baggage for all commentators after the Discantus positio vulgaris. This is most strikingly apparent in the case of Garlandia, who gives numerous examples of the mensural and contrapuntal compatibility of "rectus modus ad modum
per ultra mensuram" (Garlandia, De mensurabili musica 1:84-88). Clearly, ever since the appearance of Perotinian discant for tenor and two upper voices nothing is in fact any longer beyond measurement in discant.
38. See also Sanders, "Consonance and Rhythm," 277-80. The continued cultivation of the rhythms of the "alternate third mode" in some circles-especially in England, where composers largely rejected the second and third modes until the time of Franco's treatise (presumably 1280)-must account for his particular modal system. The English likewise began around this same time to replace the paired breves in their notation of the "alternate third mode" with a long and a breve (English breve), thus finally relegating this conventional reading of two successive breves to historical oblivion and, from Franco's modal point of view, converting it into a subspecies of the first mode; cf. Sanders, "Duple Rhythm," 263-86; idem, "Sine littera," 219 n . 7. The origin of the lozenge-shaped English breve may well lie in the kinds of coniunctura notation posited in example 2.5 above.
39. In view of the passage from the Discantus positio vulgaris cited on $p .43$ above, it is obvious that there is no prehistory for the fourth mode, an unreal construct said by "Dietricus" (the name of the scribe) to be "not in use" (cf. Sanders, "Conductus and Modal Rhythm," 467 n. 101); this is in contrast to the second mode, which may owe its codification to the conversion of the tradition of "upbeat" premodal phrases.
40. Significantly, the long-short-long rhythm is at times notated as a longa followed by a binaria in $W_{1}$ even though no repeated notes are involved; for instance, O 2 , fol. 17 v (13v): "de (celis)"; M 17, fol. 33v (29v): "a(ve)"; M 40, fol. 44 (38): "non de(ficient)," twice; M 49, fol. 46 (40): "(et spe)ra(bit)." In $F$ each of these passages has a ternaria.
41. Peter Wagner insistently (in three journals) called attention to an analogous melodic phenomenon in conjunction with the rise of diastemic notation; see Willi Apel, Gregorian Chant (Bloomington, Ind., 1958), 108 n. 13.
42. In the first case the contraction of the first four notes into a quaternaria became a frequent practice, especially in the later sources ( $F, M \ddot{u}$ A [Munich, Bayerische Staatsbibliothek gallo-rom. 42, and Berlin, Bibliothek Johannes Wolf; the latter is lost but photographically preserved in Paris, Bibliothèque Nationale, Département de Musique, Vma 1446], and $W_{2}$ ). Thus the first seven notes of example 2.3 appear in the $F$ and $W_{z}$ concordances in regular sixth-mode notation, i.e., as a plicated quaternaria followed by a binaria. Other such passages are notationally revised to produce the irregular sixth-mode pattern reported by Garlandia (see p. 43 above), as, for instance, in the setting of "manere" in M 5 . All three notations appear in one passage from Perotinus's Sederunt (ex. 2.10; see note 35 above).
43. Two versions of the London treatise are preserved: in London, British Library, Egerton 2888, and in Naples, Biblioteca Nazionale "Vittorio Emanuele III"; VIII, D. 12. They date from the "second half of twelfth century" (Catalogue of Additions to the Manuscripts in the British Museum in the Years 1906-1910 [London, 1912], 274) and from the "late Twelfth century" (The Theory of Music from the Carolingian Era up to 1400, vol. 2, ed. Pieter Fischer [RISM B III², Munich, 1968], 70). Each of these versions of the treatise, which probably dates from the mid-twelfth century, has been published: see Marius Schneider, Geschichte der Mehrstimmigkeit (Berlin, 1934-35; reprint ed., Tutzing, 1969), 2:106ff., specifically 115-20; and Guido Pannain, "Liber Musicae. Un teorico anonimo del XIV secolo [sic]," Rivista Musicale Italiana 27 (1920): 407-40. For details on the de LaFage treatise, see Sanders, "Consonance and Rhythm," 265-66 n. 1, and Eggebrecht, "Die Mehrstimmigkeitslehre," 59 and n. 61. No manuscript source predates the fourteenth century. Like most others (see Sanders, "Conductus and Modal Rhythm," 45253 and 4+6), the London and de LaFage treatises deal with the polyphonic elaboration of chant melodies. This is indicated not only by the musical examples given (or referred
to, but omitted) in the sources of the de LaFage Anonymous, but also by the fact that both are chant treatises that end with discussions of nonmonophonic aspects of chant. The absence of the fundament of a cantus ecclesiasticus in the polyphonic settings of versus and conducti militates against modern exemplifications of the writings by such authors with specimens taken from those repertories, which are not strictly bound by laws and rules.
44. See Eggebrecht, "Die Mehrstimmigkeitslehre;" 50; edition, translation, and exhaustive commentary in Hans Heinrich Eggebrecht and Frieder Zaminer, eds., Ad Organum Faciendum: Lehrschriften der Mehrstimmigkeit in nachguidonischer Zeit, Neue Studien zur Musikwissenschaft, vol. 3 (Mainz, 1970), 43-108.
45. Ibid., 61.
46. The pertinent passage reads as follows: "And one must beware with all care and the greatest caution that the discant have no more notes than the chant" ("Et hoc etiam omni cura maximaque cautela cavendum est ne discantus plures punctos habeat quam cantus"; quoted from Jacques Handschin, "Aus der alten Musiktheorie," Acta Musicologica 14 [1942]: 24).
47. Eggebrecht, "Die Mehrstimmigkeitslehre," 65.
48. Sarah Fuller, "An Anonymous Treatise Dictus de Sancto Martiale: A New Source for Cistercian Music Theory," Musica Disciplina 31 (1977): 23 and 27.
49. Eggebrecht, "Die Mehrstimmigkeitslehre," 65.
50. Fuller, "An Anonymous Treatise," 24.
51. Cf. Sanders, "Consonance and Rhythm," 268 n .8 . In the absence of any evidence it is apposite to propose that the gold ring set with rubies Leoninus received, probably in Mav 1182, from Pope Lucius IIl's legate to France (cf. Craig Wright, "Leoninus, Poet and Musician," Journal of the American Musicological Society 39 [1986]: 25-27) constituted a reward or token of appreciation for his Magnus liber organi. In the last four lines of Leoninus's poem of gratitude, which consist of a strikingly emphatic expansion of the fleeting expression "parvum munus" in the Ovidian model, there may be a hint (the topical nature of the flourishes notwithstanding) that he regarded himself as worthy of a significant present, perhaps greater than the ring he acknowledged in his poem:

Tu quoque ne queso reputes te parva dedisse Esse nichil parvum quo mihi dante potest.
Nec iam parva forent; etiam si parva fuissent Magna facit magnus munera parva dator.

I beg you not to consider yourself as having given too little; There can be nothing small in your giving to me.
And indeed your gift was not small; and even if it had been small, Given by a great giver a small gift becomes large.

In an earlier poem, by contrast, he referred to a "splendid gift" ("preclarum munus") he had received from King Louis VII at the request of Alexander II, Lucius's Francophile predecessor.
52. For the evidence furnished by the conductus repertory, see Sanders, "Style and Technique in Datable Polyphonic Notre-Dame Conductus," in Gordon Athol Anderson, 521.
53. See "Communications" in Journal of the American Musicological Society 34 (1981): 590 n . 1; and 35 (1982): 586-87.
54. Richard L. Greene, "Two Medieval Musical Manuscripts: Eggerton 3307 and Some University of Chicago Fragments," Journal of the American Musicological Society 7 (1954): 27-28. This Cistercian source of polyphony seems to have remained largely
unknown or disregarded; cf., for instance, Gilbert Reaney, "The Social Implications of Polyphonic Mass Music in Fourteenth Century England," Musica Disciplina 38 (1984): 164. Mark Everist has recently published evidence for the nearly certain Cistercian origin of an even earlier continental source of polyphony, dating from "between 1230 and $1260^{\prime \prime}$ ("A Reconstructed Source for the Thirteenth-Century Conductus," in Gordon Athol Anderson, 97-118, esp. 110-14).
55. For details regarding the situation in Yorkshire at that time, see Sanders, "Duple Rhythm," 274-75 n. 132.
56. The treatise should probably be dated within a decade or so of the reform of Bernard de Clairvaux, which "must have been effected sometime between 1142 and 1147" (Chrysogonus Waddell, OCSO, in The Works of Bernard of Clairvaux, vol. 1, Cistercian Fathers Series, no. 1 [Spencer, Mass., 1970], 154).
57. The legitimacy of this view was confirmed in a personal communication from Father Waddell. See also his informative "The Origin and Early Evolution of the Cistercian Antiphonary: Reflections on Two Cistercian Chant Reforms," in The Cistercian Spirit: A Symposium, Cistercian Studies Series, no. 3 (Shannon, 1970), 190-223.
58. Cf. Fuller, "An Anonymous Treatise," 28.
59. The transcriptions in Sanders, "Consonance and Rhythm," 272-73, may well be seen to be supported by the post-Garlandian view of the comparatively late Sowa Anonymous, who comments that organum speciale "est reducibilis ad numerum [i.e., rhythmic measure; foot] recte vocis"' (Sowa, Ein anonymer glossierter Mensuraltrakt, 128).
60. See Sanders, "Conductus and Modal Rhythm." The fact that the conductus poems are rithmi, not metra, is additional and fundamental evidence that the patterns of the rhythmic modes are irrelevant; see Sanders, "Rithmus," in the forthcoming festschrift for David G. Hughes, ed. Graeme M. Boone, Isham Library Papers (Cambridge, Mass.), vol. 4.

## XIII

## Rithmus

Having in 1962 questioned the applicability of the rhythmic modes to the syllabic portions of polyphonic conducti, I undertook to demonstrate their inapplicability in a more recent article. Investigation of the relevant statements of thirteenth-century writers on music as well as of a number of conducti confirmed the summary, first offered in 1979, that prior to "approximately the second decade of the thirteenth century and probably for some time thereafter most syllables in polyphonic genres other than the motet had the durational value of one perfect long, some more, none less." Three scholars have recently provided excerpts of and commentaries on medieval treatises concerning Latin poetry of the Middle Ages, neglected by almost all musicologists, even though their relevance to the degree(s) of interrelation between poetry and music should surely be examined. ${ }^{2}$ It is

[^156]hoped that the problems both the treatises and the poetry have presented to the modern reader, the scantiness of twentieth-century comment on the treatises, and the question of their pertinence to medieval musical practice and theory will justify another approach to these related issues.

Prior to the eleventh century, writers on poetry and on music generally agree that rithmus is, in the words of Maximus Victorinus's Ars Palaemonis de Metrica Institutione, "an arrangement of words [i.e., poetry] duly proportioned not by means of the metrical system, but measured by numerical scanning with regard to the judgment of the ears" ("verborum modulata compositio non metrica ratione, sed numerosa scansione ad iudicium aurium examinata"). He further states that "very often, however, you will, by some chance, encounter metrical ordering in rithmus as well, but as a result of the guidance of sound and of that duly proportioned order, and not of scrupulous observance of the [metrical] system" ("plerumque tamen casu quodam etiam invenies rationem metricam in rhythmo, non artificii observatione servata, sed sono et ipsa modulatione ducente"). Except for the substitution of numero for numerosa scansione and of invenies etiam rationem for etiam invenies rationem metricam, the treatise by the seventhcentury grammarian Audax offers the same definition. ${ }^{4}$

[^157]The Venerable Bede's formulation begins with a clause stating that rithmus"seems to be entirely similar to meters" ("Videtur autem metris esse consimilis"); thereafter it is identical to that of Audax, except for the clarifying insertion of syllabarum after numero and for the substitution of moderatione (arrangement) for observatione. Bede, however, amplifies his account by citing two hymns as examples of modulata compositio brought about through the observation of sonus for the iudicium aurium. Rithmus, therefore, is both technique and a poetic genre now labeled as such.

And in that way that excellent hymn was so beautifully made after the likeness [in imitation] of the iambic meter (Quo modo instar iambici metri pulcherrime factus est hymnus ille preclarus):

Rex eterne domine, rerum creator omnium, qui eras ante secula semper cum patre filius;
and a good many other Ambrosian hymns. Likewise, they sing the abecedarian hymn about the Day of Judgment after the model of the trochaic meter (et alii Ambrosiani non pauci. Item ad formam metri trochaici canunt hymnum de die iudicii per alphabetum):

> Apparebit repentina
> dies magna domini, fur obscura velut nocte
> inprovisus occupans. ${ }^{5}$

Archbishop Julian of Toledo (680s); see his Mittelalterliche Studien 1 (Stuttgart: Hiersemann, 1966), 296 and 291. Victorinus's relegation to the fourth century (Wilhelm Seidel, "Rhythmus/ numerus," Handwörterbuch der musikalischen Terminologie, 10, col. 2, and 13, col. 2; Fassler, "Accent," 168, n. 17) results from his identification with Marius Victorinus. Both the latter and Attilius Fortunatianus (also fourth century) do, however briefly, describe rithmus as verse structured numerically and without feet, on the one hand, and on the basis of sonus, on the other (Keil, Grammatici Latini 6: 44, 96, and 282). For a discussion of the early grammarians' statements regarding rithmus see Wilhelm Meyer, Gesammelte Abhandlungen zur mittellateinischen Rhythmik (Berlin: Weidmann, 1905-36), 3: 127-45, esp. his list with commentaries on 140-45. On 135 he provides a somewhat differently articulated interpretation of the Palaemon passage in his translation and commentary.
${ }^{5}$ Chapter 24 (De rithmo) of his De arte metrica; see Bedae Venerabilis Opera, Pars VI, 13839. His initial clause is not without precedent; both Maximus Victorinus and Audax mention syllables (and time units) as the elements of measurement of the feet in metrical poetry and precede their definition of rithmus with the contention that it is something that "metro... videtur esse consimile." The definition given in the Ars grammatica, poetica, et rhetorica of Julian of Toledo is somewhat less informative; see Francisco A. de Lorenzana y Butron, Cardinal, ed., SS. PP. Toletanorum quotquot extant opera . . . (Madrid: Ibarra, 1782-93), Auctarium [=Supplement] for vol. 2 (Rome, 1797), XLIXa. Even though his treatise was written between 680 and 687 -just ten or twelve years before Bede's-it may not have served as Bede's model, Charles H. Beeson's strong suggestion to the contrary notwithstanding; cf. the

The discussions of rithmus by Aurelian of Réôme (mid-ninth century) ${ }^{6}$ and by Rémy of Auxerre (ca. 900)' bring nothing new. Omitting all reference to meter, the former, also citing Rex eterne domini, reformulates his predecessors' statement that the apparent metrical ordering in certain rithmi is not the result "of scrupulous observance of the [metrical] system": the hymn, he says emphatically, "has no system of feet, but is founded solely on proper rhythmic regulation" ("nullam tamen habet pedum rationem sed tantum contentus est rithmica modulatione").

In sum, all these definitions of rithmus specify that (1) it is not meter and that it involves (2) numerical scanning of syllables (3) on the basis of their sound as judged by aural perception. Since measurement of the syllabic components as long or short is a matter of metric versification, ${ }^{\text {b }}$ numerical scanning implies durational equality of syllables, pronounced in accordance with the way words are normally sounded and perceived (in prose). That such arrangements would often chance to produce the sem-blance-but not the reality-of trochaic or, less likely, iambic meters is hardly surprising in view of Latin pronunciation. Metrical schemes such as the trochaic or iambic dimeter may even have been templates, but irregularities ${ }^{9}$ as well as the writers' offhand mention of this feature show that they seem not to have been seen as essential and obligatory. ${ }^{10}$ To our knowledge it was St. Augustine who, late in the fourth century, initiated the long medieval tradition of non-metrical poetry, because he knew that many people no longer had "knowledge of long and short syllables, as taught by the grammarians," and because the pertinent poem, his Psalmus contra partem Donati (393), intended for congregational instruction and
latter's "The Ars Grammatica of Julian of Toledo," Miscellanea Francisco Ehrle 1, Studi e testi 37 (1924), 51, 56.
${ }^{6}$ Aureliani Reomensis Musica disciplina, ed. Lawrence Gushee, Corpus Scriptorum de Musica 21 (Stuttgart: Hänssler, 1975), 67; the passage is quoted and translated by Fassler, "Accent," 169.
' Remigii Autissiodorensis Commentum in Martianum Capellam, ed. Cora E. Lutz (Leiden: Brill, 1962-65), 2:335; the relevant passage is quoted in Stevens, Words and Music, 417, n. 6.
${ }^{8}$ See n . 5 above.
' As, for instance, the initial catalexis of Rex eterne domine, which more than one modern editor "corrected" by prefacing the first verse with " O "; see Clemens Blume, ed., Analecta Hymnica 51 (Leipzig: Reisland, 1908-09), 6. It is puzzling that Bede's reiteration of his predecessors' observation regarding the appearance or semblance of metrical order in rithmi should have led Norberg, 133, to the conclusion that Bede here comments on the "occasional success" of poets of rithmi in also "composing regular quantitative poetry."
${ }^{10}$ See below, p. 431. In view of later medieval definitions of rithmus (see p. 421-28 below) it is unlikely that the writers cited so far were referring to the kind of syllable-counting metrical poems whose verses contained constant numbers of syllables rather than feet and evidently displayed varying arrangements of longs and shorts. As regards this ancient and widespread type of poetry (Greek, Vedic Sanskrit, Slavic, Irish) see Calvert Watkins, "Indo-European Metrics and Archaic Irish Verse," Celtica 6 (1963): 194-249.
participation, imposed the obligation to eschew the use of "certain generally less customary words that metrical necessity might compel." "1

Not until the second half of the eleventh century are we given further information about the nature of rhythmic Latin poetry. Alberic of Monte Cassino, who in his Rationes dictandi summarily states that, in contrast to metric poetry and prose, "a rhythmic composition is what is put together syllabically by means of a fixed numerical standard" ("rithmicum sane dictamen est quod certa numerorum lege sillabatim colligitur"), ${ }^{12}$ proceeds in his De rithmis ${ }^{13}$ to present a detailed treatise. Generally speaking, he begins,
there are some rithmi in which only the quantity [not in the metrical sense] of syllables is considered, without any consideration of length and brevity. There are others in which for a specific, limited number of syllables length and brevity are taken into account as well. That is, to speak more plainly, they are both rithmi and metra [metrical verses or poems].

Rithmorum alii sunt in quibus consideratur mensura tantum sillabarum sine omni longitudinis et brevitatis consideratione. Alii sunt in quibus cum certo et determinato numero sillabarum etiam longitudo et brevitas est prospecta. Quod est apertius dicere: rithmi pariter sunt et metra. ${ }^{14}$

Alberic then adduces two hymn stanzas ${ }^{15}$ as examples of the first category: the first stanza of a hymn imitating the Sapphic strophe (Christe, sanctorum decus atque vita) ${ }^{16}$ and the third stanza of Ave maris stella, identified as rithmus exasillabus, consisting of hexasyllabic verses (membra) made up of three disyllables each. Thereafter he unsystematically presents seven other categories on the basis of their numerical syllable content ( $8,7,15,12,10$, 5,11 ), beginning with rithmus octosillabus and citing as one of exempla

[^158]
## innumerabilia the first stanza of Peter Damian's (1006-72) hymn Maria virgo regia. He adds the following comment:

Hence [or, from the example it is clear that] ${ }^{17}$ such rithmi customarily take care that the penultimate syllable of each verse be shortened in sound. Some octosyllabic rithmi are made, however, in which the opposite is carefully observed, i.e., that the penultimate syllable of each verse is lengthened in sound...

> Inde [or, Unde] huiusmodi autem consueverunt cavere quatenus penultima sillaba uniuscuiusque membri accentu corripiatur. Fiunt tamen quidam octosillabi rithmi in quibus res cavetur contraria, ut videlicet penultima sillaba uniuscuiusque membri accentu producatur . . . ${ }^{18}$

To express the lengthening of the penultimate syllable, Alberic consistently uses the verb producere. Instead of corripere he once writes breviare and once levare. In place of accentu he uses each of the following phrases once: prolatione et accentu (delivery and sound); accentu et sola prolatione (sound and singular delivery); accentu et sono (sound production); pronuntiatione et sono (delivery and sound production). ${ }^{19}$ The terminology shows the
${ }^{17}$ Davis, "The 'De rithmis,' "218.
${ }^{18}$ His example (Luget mundus, plorat terra) can be dated 1054; Davis, "The 'De rithmis,' "219. It is tempting, therefore, to date the treatise as from the third quarter of the eleventh century. For a summary of information on Alberic of Monte Cassino see Owen J. Blum, "Alberic of Monte Cassino and the Hymns and Rhythms Attributed to Saint Peter Damian," Traditio 12 (1956): 87-148.
" Davis, "The 'De rithmis,' "212-14. The statement that rithmi "reflected [metrical schemata] through accent rather than duration . . . at cadences" (Fassler, "Accent," 171) seems puzzling. For his second category of rithmi Alberic never mentions meters, but constantly emphasizes the duration of the penultimate.

Early medieval sources, beginning with Placidus's Glossary (one of the oldest to have come down to us), consistently define accentus as follows: ratio metrica; sonus productus, acutus sonus in verbis; vox acuta sive producta (sonus and vox can be synonymous); sonus vocis correptae vel productae; see Georgius Goetz, ed., Thesaurus glossarum emendatarum 1, Corpus glossariorum Latinorum 6 (Leipzig, 1899; repr. Amsterdam: Hakkert, 1965), 12, and the references given there. One commentator (fifth century) elaborately describes what Klopsch, Einführung, 3, calls "expiratory accent" (stress accent); but, as the latter points out, the definition implies that it must have been very weak. In any case, no other writer touches on the notion of stress, and accent is always defined in terms of duration and/or pitch, not loudness. This is also the meaning accentus still has for Franco (see Journal of the American Musicological Society 33 [1980]: 604a); it does not mean accent, i.e. stress accent, as Dolores Pesce seems to believe ("The Significance of Text in Thirteenth-Century Latin Motess," Acta Musicologica 58 [1986]: 102). For the further persistence of the traditional meaning of accentus, see n. 79 below. The terms emphasis (= stress) and ictus do not appear, and even Ben Jonson still defined the sounding of vowels as "in quantitie (which is Time) long, or short. Or, in accent, which is tune [= sound] sharp [= acute, high], or flat [= grave, low] . . .n; Ben. Johnson [sic], The English Grammar ([London]: n.p., 1640), 36. (His categories "sharp" and "flat" are applied to monosyllables, while "long" and "short"-i.e., long and short vowels-are exemplified only by trisyllables.) To be sure, he elsewhere (p. 54) talks of "the force of an Accent."
treatise to be an instruction manual both for the delivery and for the facture of rithmi.

Alberic's work seems to indicate that the principle of cadential articulation of rhythmic verses on the basis of their concluding either paroxytonically or proparoxytonically (also at the caesuras in the three longest verse types) arose sometime in the tenth or early eleventh century. In fact, however, he bases his definition of cadential endings not on the pronunciation of Latin words, but solely on the penultimate syllable of each verse. This helps to confirm that the syllables preceding the cadence were pronounced isochronically. The same essential feature is indicated by the fourth verse of the first stanza of the early hymn O crucifer bone by Prudentius (d. after 405) that he cites as an example of decasyllabic rithmus with short penultimate: "sed prius in genitore potens." Here it cannot be a matter of the antepenultimate being lengthened, but solely, as he says, of the penultimate being shortened. (This poem still reflects quantitative metrical principles, which Alberic replaces with his rule of the penultimate. ${ }^{20}$ Why the first two poems cited by him should not (yet) be bound by the new rule of the penultimate is unclear. In the first (Christe, sanctorum decus atque vita) it might be due to the relative complexity of the versification, while, contrariwise, the repetitive simplicity of the second poem may have inhibited versual articulation.

To answer the question of "what rithmus is, how many syllables the verse should contain, and how many verses constitute a stanza and where consonance [i.e., rhyme] should be observed" ("quid sit rithmus et quot ex syllabis distinctio [Alberic's membrum] constare debeat, et ex quot distinctionibus clausula sit, et ubi sit observanda consonantia"), the twelfth-century author of De rithmico dictamine offers the following definition:

> Rithmus is the rhyming parity of a fixed number of syllables. A verse must consist of at least four syllables and of at most sixteen.... A stanza must consist of at least two and at most five verses. ... With respect to rhyme one must realize that, if the penultimate syllable of a verse is pronounced with a high pitch, rhyme must be observed from the vowel of the penultimate syllable to the end. . . If, however, it is pronounced with a low sound, rhyme must be observed from the vowel of the antepenultimate syllable to the end ...

> Rithmus est consonans paritas sillabarum sub certo numero comprehensarum. Distinctio debet constare ex quatuor sillabis ad minus, et ex sexdecim ad plus.... Clausula debet constare ex duabus distinctionibus ad minus, ex quinque ad plus. . . . Sequitur de consonantia. Unde sciendum est quod si

[^159]penultima sillaba distinctionis proferatur acuto accentu, consonantia debet servari a vocali penultime sillabe usque in finem. . . Si vero proferatur gravi accentu, consonantia debet servari a vocali antepenultime sillabe usque ad finem. . . ${ }^{21}$

The great novelty here is the mandatory codification of rhyme, which as an elective feature goes back to late Roman Christian poetry and seems to have become obligatory by the end of the eleventh century. ${ }^{22}$ In addition to specifying equality of syllables, a feature only implied by his predecessors, the author expressly introduces the concept of the antepenultimate, from which rhyme has to proceed if the penultimate is lowered in pronunciation. ${ }^{23}$ In other words, the nature of the final word of any verse as either paroxytonic or proparoxytonic governs the rhyme. All of his examples of verses ending proparoxytonically do so with words of three or more syllables, and clearly a verse like that just cited from the hymn by Prudentius is no longer admitted, because its use in such a context is compatible only with metrical concepts. Thus, in apparent contrast to Alberic, this author does not recognize the possible poetic conception and treatment of syllables as entities independent of the words they constitute, which would likely have come to be a solecism in the course of the twelfth century. (For an example see p. 428.)

A twelfth-century redaction of the De rithmico dictamine, titled Regulae de rithmis, defines rithmus somewhat more elaborately, though with no change in meaning:

[^160]Rithmus is congruous, rhymed ordering of [elements of] speech [i.e., syllables, words, phrases], continuously rendered with equality of syllables. Number is thus to be observed in it, that is, first in the verses and then in the syllables and rhymes.

Rithmus enim est congrua diccionum ordinatio, consona, continenter sillabarum equalitate prolata. . . Numerus ergo in ipso notandus est, primo quidem in distinccionibus, postmodum vero in sillabis et consonanciis. ${ }^{24}$

Apart from the more explicitly Gothic reference to the all-governing power of number, neither this general definition nor the subsequent particulars (i.e., interrelation of rhyme and pronunciation, distribution of rhyme patterns) differentiate this redaction from its model. ${ }^{25}$

This would seem to have been the understanding of rithmus when Johannes de Garlandia (Anglicus) ${ }^{26}$ set about to write his exhaustive treatise-or, rather, part of a treatise-on rithmus, his Ars rithmica. ${ }^{27}$ After a brief introductory paragraph reporting the taxonomy of music, as inherited from Boethius and Cassiodorus, he proceeds to define rithmus:

Rithmus is the rhyme of words similar in their endings, which is arranged by means of a fixed number without metrical feet . . .. ${ }^{28}$ "arranged," because words [phrases?] have to end in a well-ordered way in a rithmus. According to some, rithmus originated from the rhetorical ornament known as "ending similarly ${ }^{{ }^{29}}$ But a certain type of rithmus ends as if it were an iambic metrical verse, and another as if it were a spondaic metrical verse. In this context iamb should be understood to mean a word whose penult is shortened (for an
${ }^{24}$ Mari, I trattati, 28. He also mentions the matter of cadential rhythm, first raised by Alberic.
${ }^{25}$ See Fassler's summary, "Accent," 178-79. She remarks that the author "seems to say that all syllables in a rhythmic poem are equal . . ." and characterizes this as a "possible attempt at clarifying a difficult point, . . . on which most twelfth-century authors are silent." Her survey shows, however, that the only other twelfth-century treatise (the original De rithmico dictamine) also specifically mentions equality (or parity, as the author puts it) of syliables (Fassler, "Accent," 174-75; see also 421-28 above).
${ }^{25}$ In view of Jerome of Moravia's designation of the music theorist lohannes de Garlandia as "Gallicus," it may be well to differentiate the two more or less contemporary Parisian teachers, both named Johannes and both living in the Clos de Garlande, as "Anglicus" and "Gallicus," respectively; see Erich Reimer, Johannes de Garlandia: De mensurabili musica 1, Beihefte zum Archiv für Musikwissenschaft 10 (Wiesbaden: Steiner, 1972), 4, 13-14, and 16-17.
${ }^{27}$ For bibliographic details and an extensive discussion of this treatise see Fassler, "Accent," 180-88. As regards the date (early 1230s, possibly ca. 1220), see her nn. 42 and 64 on 174 and 180.
${ }^{26}$ Cf. the formulation by Aurelian of Réorme, p. 418 above.
${ }^{29}$ For the history of this rhetorical figure see Klopsch, Einführung, 46. The term (similiter desinens) need not be understood only as rhyme, however, as Mari, I trattati, 36, n. 4, did. It could have been intended to stand, at least partially, for identical articulation. Fassler, "Accent," 182, states that John, in using "terminology borrowed from metrics . . . does not connect the patterns with rhyme." But Garlandia mentions rhyme as the primary aspect of rithmus.
iamb consists of a short and a long). Spondee here means a word standing in the manner of a spondee. ... ${ }^{30}$

We will then have to begin with the simplest matters, that is, with that rithmus which consists of two units [i.e., rhythmic units or beats], inasmuch as that meter that is the shortest (since rithmus imitates meter in some respect) consists of two units, as for instance the iambic dimeter, which consists of two meters [i.e., dipodies], and the meter in turn of two units, as Iam lucis orto sidere.

Rithmus est consonancia dictionum in fine similium sub certo numero sine metricis pedibus ordinata . . . Ordinata dicitur quia ordinate debent cadere dictiones in rithmo. Rithmus sumpsit originem secundum quosdam a colore rhetorico qui dicitur similiter desinens. Quidam vero rithmus cadit quasi metrum iambicum, quidam quasi metrum spondaicum. Iambus in hoc loco intelligatur dictio cuius penultima corripitur; iambus enim constat ex brevi et longa. Spondeus hic dicitur dictio stans ad modum spondei. . . . A simpliciori ergo erit inchoandum; scilicet a rithmo qui constat ex duabus percussionibus, quia, cum rithmus imitetur metrum in aliquo, illud metrum quod est brevius, constat ex duabus percussionibus, sicut iambicum dimetrum, quod constat ex duobus metris, et metrum ex duabus percussionibus, ut illud lam lucis orto sidere. ${ }^{3}$

John's citation of a simple hymn-a specimen from a genre linked to the tradition of metrical poetry-serves the purpose of explaining the meaning of percussio, i.e., a rhythmical unit, in analogy to a metrical unit, ${ }^{32}$ though the latter is of course commonly called pes. And indeed, after touching on some further taxonomic issues, ${ }^{33}$ he begins with the simplest rithmus, i.e., the rithmus dispondaicus, as he calls it, "which contains four units consisting of four words or parts thereof" ("continet quattuor percussiones, que sunt ex quattuor dictionibus vel partibus earundem dictionum"). His example as well as subsequent examples of other categories make it clear that, unlike the cited hymn, a rithmus dispondaicus, in fact, as one would expect, consists of two units, each made up, more often than not, of two words:

[^161]> O Maria,
> Vite via, per hoc mare singulare. .. ${ }^{34}$

Thereafter, rithmi trispondaici and rithmi tetraspondaici, consisting of three and four "spondaic" units, respectively, are exemplified:

Rosa sine nota,
gemma pulcra tota,
lutum peccatorum
ablue nostrorum.
Eva mundum deformavit,
Ave mundum reformavit, munda mundum emundavit. . . .

An iambic rithmus, he continues, sometimes contains eight syllables, sometimes seven. His examples are:

Ve, ve mundo a scandalis, ve nobis ut acephalis.

Ave, plena gratia,
ave, culpe venia.
Maria, perge previa, nos transfer ad celestia, prius emundans vicia, fons vite, culpe venia.

As in the case of "spondaic" rithmi, he remarks that the stanzas of a poem must consist of two, three, or four verses. ${ }^{35}$

Johannes had earlier ${ }^{36}$ pointed out briefly that "one kind of rithmus is simple, the other composite" ("rithmorum alius simplex, alius compositus"). Now, having demonstrated eight kinds of rithmi simplices (i.e., rithmi consisting of verses exclusively ending either "spondaically" or "iambically"), he simply notes that rithmi compositi "result from their commingling in alternation" ("ex permixtione eorum octo ad invicem resultant compositi"). "So that this be made manifest, let us join the above examples in such a way that a rithmus dispondaicus has a variant iambic

[^162]ending in its third [verse]" ("Quod ut manifestum fiat, coniungamus predicta exempla ita quod dispondaicus rithmus habeat iambicum differenciam ${ }^{37}$ in tercio . . ."):
\[

$$
\begin{aligned}
& \begin{array}{l}
\text { O Maria, } \\
\text { vite via } \\
\text { nobis perge previa ... } \\
\text { Rosa sine nota, } \\
\text { gemma pulchrat tota, } \\
\text { nostra dele vicia; } \\
\text { lutum peccatorum } \\
\text { ablue nostrorum, } \\
\text { vite via, venia. }
\end{array} \text {. }
\end{aligned}
$$
\]

Or for that matter,
O virgo, perge previa, nos transfer ad celestia, que mundum emundasti. . . . ${ }^{\text {s }}$

Composite rithmi are to be performed as follows:
And note that a variant spondaic ending in an iambic rithmus begins low and ascends in its declamation, and with the addition of one syllable, so as to resemble the iambic [rithmus]. In a spondaic rithmus a variant iambic ending begins high and descends in declamation, with the reduction of one syllable, so as to resemble the spondaic [rithmus).

Et nota quod spondaica differencia in iambico rithmo incipit ab imo et tendit in altum in scansione, et addicione unius sillabe, ut sit similis iambico. In spondaico rithmo iambica differencia incipit ab alto et tendit in imum scandendo, subtracta una sillaba, ut sit similis spondayco.

These rules offer significant clarifications. In the first place, John stipulates that variant iambic endings elide the vowel of the penult and variant spondaic endings repeat it. Secondly, he leaves no doubt that the cadential articulation of verses involves both the duration (long or short) and the pitch (relatively high or low) of the penult. And thirdly, his rule regarding pitch makes it apparent that all non-cadential syllables are declaimed equally, not only in duration, but also in pitch, in a manner similar to the reciting tone of psalmody (see example 1). ${ }^{40}$

[^163]
## Example 1



In sum, it seems that Garlandia's treatise does not contain anything essentially new when compared with De rithmico dictamine. To be sure, he codifies the rithmi compositi, a species left out of account by the earlier author; but the relative terseness of his treatise hardly needs to be taken as an indication of his ignorance of the mixed species. (A number of his poetic citations are, in fact, rithmi compositi.) Garlandia's use of the terms spondee and iamb in a non-quantitative context provides a new elucidation of the declamation of verse endings. ${ }^{11}$ In addition, his coinage of trispondeus (or trispondaicus) and tetraspondeus (or quadrispondaicus) ${ }^{42}$ gives names to the traditional isochronic syllabism of rithmi by extending the "spondaic" equality of paroxytonic verse endings backward to cover the entire verse. ${ }^{43}$

Of the three thirteenth-century treatises listed by Fassler ${ }^{44}$ only that by Master Sion of Vercelli (before 1290) contains an interesting variant of John of Garland's codification. Instead of the latter's terms spondaicus and translate $a b$ imo and $a b$ alto as "with an unstressed syllable . . . with a stressed syllable" and "with a weak syllable . . . with the strong," respectively.

The reduction of a syllable is a device that would seem to have arisen from the tradition of synizesis. (Elision was practiced ever since Roman antiquity; see Norberg, Introduction, 2930). Adjacency of two vowels linking the last two syllables of a proparoxytonic word (e.g., filius) is, of course, quite common in Latin, and the preponderance of rithmi iambici given by Johannes de Garlandia end with such words.

The remainder of the treatise deals with ornamental rhetorical figures and with various rhyme patterns.
"See the testimony of Nicolaus Tibinus ( n .79 below). The author of De rithmico dictamine does not discuss cadential durations.
${ }^{42}$ A good many grammarians, beginning with Terentius Maurus (end of the second century) and ending with Isidore of Seville (ca. 600), report the dispondeus, but none knows any higher order of spondee; see "dispondeus" in Thesaurus Linguae Latinae 5, col. 1420, and the references given there.
${ }^{43}$ Verses that both end paroxytonicaily and contain an odd number of syllables, such as Alberic's rithmus epdasyllabus, pentasyllabus, or endecasyllabus (see Davis, "The 'De rithmis,' " 210 and 213-14), are impossible in Garlandia's square system.
" Fassler, "Accent," 175. They are numbers III, VI, and II in Mari, I trattati.
iambicus he uses spondaicus and dactylicus, beginning his examples of both with verses of four and five syllables;'s the "dactylic" verses are to be read as editorially indicated above the words (example 2).
Example 2

But the designation of such verse endings as dactylic is, in fact, a corruption, as ever since Alberic the deviation from syllabism could occur only on the penult, if the last word was proparoxytonic. Johannes de Garlandia expressly rejects the dactylic interpretation of such verse endings, in favor of his iambic designation. ${ }^{46}$

For verses containing seven to ten syllables Master Sion mandates first hemistichs ending spondaically-a significant increase in precisely measured organization, the more so as he does not recognize the terms trispondaic and tetraspondaic. Yet, the system does not always work cleanly, as for instance in the first verse of this example of spondaic endings after both the fourth and the eighth syllables of each verse:

Terret me dies terroris ire dei et furoris, dies luctus et tremoris...

## II

More than a century ago Wilhelm Meyer "aus Speyer" (1845-1917), a great part of whose scholarly production was concerned with rithmi, characterized this genre as follows:

[^164]But, in marked contrast to . . . quantitative poetry, the essence of rhythmic poetry is to be observed in the ordinary accentuation and pronunciation used in prose. This principle, that words are accented and pronounced as in ordinary speech, . . . was never given up, and we, too, must pronounce the individual words of rhythmic verses without regard and awareness of the verse pattern. ${ }^{47}$

From the beginning to the end of Latin rhythmic poetry we face a striking phenomenon: if words are accented as ordinarily in prose, the endings of corresponding verses receive identical accentuation (either $-\sim$ - or $-\sim$ ), but their preceding syllables very often display varying kinds of pronunciation [verschiedenen Tonfall]. ${ }^{8}$

And, some twenty years later:
I have always maintained this result of my research: the verses of rhythmic poetry are prose with a particular final cadence. As Latin accentuation knows only two types of word endings, dóminus and múltus, trochaic and spondaic terminations are imitated by the latter, while all terminations with short penult are imitated by the former. . . . Before these terminations one merely counted syllables. ${ }^{19}$

Apart from the conclusion (concerning prose articulation of verses with two types of cadential articulation) familiar from the medieval treatises, Meyer also discusses a great variety of verse schemes, which, as derivatives from classical quantitative patterns of versification, he considers to have been used by medieval poets as skeletal frameworks for their rithmi. "By far the greatest part of the rithmi of the earlier period [sixth century to twelfth century]," he says, "are composed in forms imitating forms of quantitative Latin poetry." ${ }^{50}$ Alas, "to recognize the laws governing the construction of the inner part of the verse," he points out, "is as important as it is difficult."s1 The scholarly obligation of thus systematizing the profusion of rithmi from his "second period" (twelfth and thirteenth centuries) is no less challenging, the preservation of several manuals notwithstanding.

[^165]> These treatises, however, are late and, while dealing sparsely with a few verse types, offer us much useless material about the construction of the simpler stanzas. Consequently we have to glean everything ourselves from the poems. ${ }^{52}$

Meyer's copious analyses that follow this schwer gefaßten Entschlu $\beta$, as well as the enormous collection of painstaking examinations of the repertoire from his "first period," persuaded him that the syllabism with prose accentuation found in rithmi is accommodated in the verse structures of classic poetry. Its regulatory quantitative patterns had given way to the regularity of syllabic counting, though it could not be said that accentual patterns had taken the place of quantitative patterns. He therefore formulated his concept of Taktwechsel ${ }^{53}$ to account for the more or less frequent thwarting of the expectation of accentual regularity that had caused him to insist on prose accentuation in recitation (except for the cadences). ${ }^{54}$

Dag Norberg, in 1958, quoted the first sentence of Meyer's observation published in the third volume of his Gesammelte Abhandlungen, ${ }^{55}$ in order to take issue with it. "But the idea that the syllables before the terminal cadences could have any rhythm whatever conflicts with several facts and must be revised. Indeed, as we are about to see, rhythmic verse had exactly the same accents as the corresponding quantitative [type of] verse." ${ }^{36}$ While Meyer disdained the treatises published by Mari, Norberg disregards them. "Following the methods of modern scholarship," he states, "we'll do well, to the extent of what is possible, . . . to restrict ourselves to attempting to analyze and determine the facts," which are fundamentally that the historic basis of the poets of rithmi "was quantitative poetry, and from there they proceeded when they attempted to compose poetry in accordance with new principles." ${ }^{57}$ This statement of policy is then followed by detailed analyses, arranged by types of perceived imitation. Although Norberg asserts that "it is only in rather rare cases that W . Meyer's rule proves valuable, i.e., that the accentuation before the terminal cadence is free, ${ }^{" 88}$ he is forced to acknowledge relatively frequent exceptions. ${ }^{59}$

[^166]The issue is a matter of positing the existence of a system and then regarding its prosodic obligations, inherited and transformed from metrics, as either less or more viable. In other words, is prose pronunciation normal, or are the poets insensitive to the presumed demands of accentual regularity imposed by the metrically derived verse schemes? Is it proper, then, to set up the expectation of such patterns as an aesthetic criterion?

One must keep in mind that the medieval commentators give us no clue regarding the poets' presumable awareness of the structural traditions they are said to have imitated. All the treatises tell us that it is counting of syllables that is their concern. Nevertheless, we may wish to credit them with atavistic imitations of the traditional meters, ${ }^{50}$ just as the sophistication of numerical motet construction cannot be denied, even though no detailed description of the various techniques seems to have been written by any medieval author. (Perhaps as conceptual fundaments these techniques were too self-evident to require comment.) That all the pronunciations that collide with the strictures of the verse systems should be thought of as accentual insensitivities ${ }^{61}$ seems unlikely. It may be better to regard the notion of iudicium aurium as a continuing tradition supporting the concept of isochronous prose-like delivery of the syllables, except for the two defining types of cadential articulation. It is surely significant that the medieval

[^167]writers, who knew the classical meters thoroughly, seem to have regarded them as basically immaterial to their discussions of rithmi. Whether a line imitated the Phalaecian or the Lesser Asclepiadean verse ${ }^{62}$ was irrelevant to them; the only thing that counted, literally, was that, in any case, such a line contained eleven syllables with paroxytonic verse ending. Quite possibly the treatises teach us all we need to know.

## III

The chief modern investigators of rithmus, concerning themselves primarily, if not exclusively, with the poetry, are Meyer and Norberg. These two scholars are largely disregarded by those twentieth-century writers who have approached the subject by way of the treatises. Traugott Lawler, in his edition of John of Garland's Parisiana poetria, of which the Ars rithmica is the final chapter, translates a sentence from his definition of rithmus as follows: "Rhymed poems [sic] may be likened to quantitative meters: they are either quasi-iambic or quasi-spondaic." ${ }^{63}$ In his editorial capacity as translator Lawler has here made cadential patterns applicable to the entire verse. His explanation: "Since it is not explicitly stated, one should note that it is the last word in a line that determines whether that line is iambic or spondaic. . . ." ${ }^{64}$ In effect finding that John of Garland, professor of grammar and rhetoric (i.e., ars dictaminis) at the University of Paris, ${ }^{65}$ did not know or value the difference between a spondee and a trochee, he adds:

[^168]"(We would consider all of John's 'spondaic' types trochaic, and his 'iambics' as combining two trochees and a dactyl or a dactyl, a trochee, and a dactyl.)" That is the extent of his comment.

Professor Fassler similarly states that John of Garland, in "high-lighting the use of ictus or beat in rhythmic poetry," demonstrates that "quasispondaic lines are consistently patterned strong-weak throughout; word accent and beat are in perfect agreement." ${ }^{\text {be }}$ In quasi-iambic rithmi, however, "the accents of individual words do not follow an iambic pattern of weak-strong throughout; only the cadences are consistently weak-strong:

Ave, plena gratia,
Ave, culpe venia." ${ }^{\text {" }}$
These verses, however, can only be classified as rhythmic imitations of the second hemistich of the trochaic septenarius (i.e., a catalectic trochaic verse); ${ }^{68}$ it could not possibly in any way-except for the cadence-be related to the iambic pattern. Professor Fassler concludes "that what John calls spondaic lines (what we might [sic] call trochaic) are consistently patterned long-short and are described in terms of 'percussiones' or beats. What he calls iambic lines occasionally exhibit inconsistency in the patterns found throughout individual lines. . . . when he attempts to discuss lines of a weak-strong or quasi-iambic cast, he gets into trouble." ${ }^{69}$ Subsequently she provides descriptions of his "attempts to extricate himself from the difficulties of working with quasi-iambic lines," ${ }^{30}$ of his seeming "to cover for this inadequacy," i.e., that "the lines he describes as 'iambs' in his examples do not always have consistent patterns of weak-strong throughout, ${ }^{" n /}$ of providing a "tortuous explanation" of rithmi compositi, and of his "clearly believing that the pattern of the cadence should be found consistently in the rest of the line," since he "wants word accents to fall in regular patterns so they can coincide with the beat or ictus." ${ }^{72}$

In her summation Fassler states "that the treatises 'De rithmis' offer no system of long and short syllables to composer/poets from the twelfth and early thirteenth centuries. Rhythmic poetry . . . appears to consist of

[^169]syllables of equal duration. ${ }^{33}$ Except for the omission of articulation of verse endings, this is entirely consistent with the evidence of the treatises, though it seems oddly inconsistent with her problematic evaluation of Johannes de Garlandia's definitions, as well as with her brief comment on the two treatises listed by her as nos. 4 and 6, i.e., nos. III and II in Mari's collection. Neither of these treatises, written under the influence of John of Garland's book, shows that "the theorists were trying to describe the force of the accent throughout the entire line. . . ${ }^{374}$ In fact, Master Sion of Vercelli, the author of the second of these treatises, could not possibly have wanted to apply the dactylic pattern of his verse endings to the entire verse, since such a scheme cannot fit tetrasyllabic or pentasyllabic lines. ${ }^{75}$

As section I of this article has shown, all the treatises in their various ways transmit a thoroughly homogeneous account, beginning with Alberic of Monte Cassino and, with the addition of rhyme as a mandatory element, continued by the author of De rithmico dictamine. Modern scholarship has recognized for a long time (section II) that rithmus is syllabic rhymed poetry with systematic cadential articulation, either paroxytonic ( -- ) or proparoxytonic ( --- ); the accentual emphases evidently were produced by duration and pitch. ${ }^{76}$ But there is no indication that syllabism (prosaic equality of counted components) required regular accentual patterns or that it was affected, corroded, or replaced by quantification, whether systematic or not. As Janet Knapp has put it in a somewhat different context, "the equalizing of the syllables absorbs or accommodates the irregularity of the verses by neutralizing the stresses." ${ }^{77}$ Even Nicolaus Tibinus, writing in the second half of the fourteenth century, ${ }^{78}$ still explains rithmus in the Garlandian tradition, though in more individual language. ${ }^{79}$ Therefore
${ }^{73}$ Ibid., 187.
${ }^{76}$ Ibid., 179, n. 60.
${ }^{75}$ See pp. 427-28 above. Janet Knapp's statement ("Musical Declamation," 388, n. 22) that three verses cited in the treatise of Master Sion of Vercelli (Fassler's no. 6) are there "identified, on the basis of the cadence as dactylic" must therefore be discounted. The same approach had been taken earlier by Sarah A. Fuller, who in her discussion of Master Sion's treatise ("Aquitanian Polyphony," 189-90) as well as of Garlandia's (192, n. 19) also simply and without comment identified spondees with trochees.

It should be pointed out in this connection that there is for Garlandia no such thing as a triiambus or a quadriiambus.
${ }^{76}$ Regarding accentuation, see n .23 above and Nicholas Tibinus's statement quoted in $n .79$ below.
${ }^{7}$ Knapp, "Musical Declamation," 392. There is, therefore, no need to comment on the "discrepancy between theory and actuality" and "confusion evident in the medieval theorist's treatment of stress within lines" (Fuller, "Aquitanian Polyphony," 192).
${ }^{78}$ Klopsch, Einführung, 35 and 40. The treatise is no. VIII in Mari.
${ }^{79}$ Briefly stated, his basic definition of rithmus involves a mensura communis, which concerns the number of syllables contained in each verse ( p .96 ), and a mensura singularis, which pertains to the rhyming syllables and therefore involves both mensuram et accentum. "By
he still singles out "inept accentuation" as a defect (vicium) only in conjunction with rhymes. ${ }^{80}$

Walther Bulst, ${ }^{81}$ F. J. E. Raby, ${ }^{82}$ and especially John Stevens in an admirable passage in his recent book ${ }^{83}$ have given illuminating accounts of the nature of rithmus. The first two of these authors contend that before 1200 the rhythm that governs the cadence had come to control the whole verse. Bulst gives two twelfth-century verses to demonstrate the total coincidence of accentuation and (trochaic) verse ictus, while Raby contends that "progress towards verse of definitely rhythmical structure was slow" and that "it was not until the eleventh century that the principles of accentual verse were fully developed and fully mastered . . " He describes "the Sequence in the later eleventh and early twelfth century" as having rhythm that "is regular and is based wholly on the word-accent, with occasional transpositions of stress. . . . The Sequence measure par excellence is the trochaic. . . ."4 The easy coincidence of Latin accentuation with the long-short pattern of the trochee has been observed often. Even so, it seems that the incontestable appearance of quasi-trochaic regularity of the later sequence did not affect the isochronous tradition of rithmus. As it happens, one of the examples cited by the author of De rithmico dictamine is the seventh stanza (Audi verbum novitatis) of the prose Missus Gabriel de celis, while the first line of the wellknown prose Verbum bonum et suave turns up in John of Garland's treatise
accent," he says, "I mean nothing more than the prolongation and abbreviation of syllables, i.e., their high and short [sic] rendition, so that a high or elevated sound is distinguished by the prolongation of a syllable, and its low, slight pronunciation by its abbreviation." His predecessors, he adds, express this by the use of the terms iambicus and spondaicus, the former meaning albreviation, the latter prolongation (98).
${ }^{80}$ Mari, I trattati, 114. According to Mari, his examples are "legere' "and "'rege' [sic]." The defective word must have been any of the roughly dozen verbs of the second conjugation ending -gere, such as egere or vegere, see Otto Gradenwitz, Laterculi vocum latinarum (Leipzig, 1904; repr. Hildesheim: Olms, 1966), 365.
${ }^{81}$ Uber die mittlere Latinität des Abendlandes (Heidelberg: [Schneider], 1946), 18-20.
${ }^{32}$ F. J. E. Raby, A History of Christian Latin Poetry from the Beginnings to the Close of the Middle Ages, 2nd ed. (Oxford: Clarendon, 1953), 21-22.
${ }^{33}$ Stevens, Words and Music, 420. Jeremy Yudkin in his review (Speculum 64 [1989]: 765-69) describes Stevens's approach to the rendition of medieval non-quantitative poetry as his "isosyllabic rhythmic theory" and questions whether "formal speech [dictamen] [is] really isosyllabic." One should not, however, be led to infer from the review that Stevens, after stating his proposition "as the central hypothesis in the introduction" presents it "as a resounding conclusion at the end of the final chapter ${ }^{n}$ (768) without adducing any evidentiary support. This essay cites additional medieval and modern testimony of what turns out to have been practice (rather than theory).
${ }^{m}$ Raby, A History, 347-48. Margot Fassler likewise has characterized the Parisian sequence as displaying "a relentless thrust of the trochaic accent" ("The Role," 360).
as an example of quadrispondaic rithmus. ${ }^{85}$ Once again, then, it seems that, notwithstanding occasional "humanistic" traits in medieval musico-textual relationships, it was not until well into the fifteenth century that a decisive prosodic reorientation took place. ${ }^{86}$

## IV

Professor Knapp has offered the conclusion that in the Notre-Dame conductus repertoire "trochaic" rhythmic poetry is not "invariably governed by the first rhythmic mode." Her example "can readily be seen to move in the longs of the fifth mode." ${ }^{87}$ In fact, it turns out that the conclusion cited in the first paragraph of the present essay is, if not supported, certainly paralleled by the nature of rithmus. Conducti are rithmi, and as such the poems were declaimed syllabically (in the poetic sense of that word). Monophonic settings are known for two of the conductus poems cited by Master Sion of Vercelli, neither of which belongs to the Notre-Dame repertoire: ${ }^{88}$ Ex Ade vicio, preserved in two related melismatic settings, ${ }^{89}$ and the strictly non-melismatic Patrem parit filia. ${ }^{90}$ Only the setting of the latter poem therefore allows the shortening of the penultimate of the proparoxytonic word at the end of each verse. The setting of Ex Ade vicio, on the other hand, like many Notre-Dame conducti, contravenes the rule of the correption of the penultimate. In fact, all musical settings tend to slow down the delivery of the poetry, even if they are not melismatic. The general inapplicability of the rhythmic modes-Gennrich's first-mode transcription of Patrem parit filia must, of course, be rejected-is thus not refuted by the poetic evidence. Nor is the corpus of rhythmic poetry of any consequence for the rise of the rhythmic modal system. Conducti and, for that matter, motets are not vers mesurés.

[^170]Under these circumstances it is not surprising that no Notre-Dame poems appear in the treatises. (Motet poetry could in any case not be expected to turn up in them.) According to a gloss to John of Garland's Dictionarius he wrote a conductus poem, datable ca. 1230,9 which has not been preserved. ${ }^{92}$ But the absence of all Notre-Dame poetry from his Ars rithmica not only lends support to Reimer's conclusion regarding the two Johannes, ${ }^{\text {y }}$ but taken together with his bewildering brief excursion into musical theory ${ }^{9}$ it also seems to indicate that in the context of the studium generale at the young University of Paris Johannes, the grammarian, was unlikely to have had much contact with Johannes, the musician, or much interest in the musica practica he represented. In accordance with tradition the study of music at the university was taken up with its quadrivial significance, i.e., Boethius. (In fact, we have no specific information just where in Paris Johannes "Gallicus" was active as a magister, though Notre Dame is a prime candidate. ${ }^{95}$ It was not until the late thirteenth century that syntheses of musica speculativa and musica practica began to be written by university professors, though before long, discussions of practical aspects of musical composition and performance predominated. ${ }^{\text {\% }}$

Johannes de Garlandia, a man of considerable erudition, was in full command of the complexities of classical metrics. Alexander de Villa-Dei,

[^171]of whose work he had a very low opinion, ${ }^{97}$ had in his Doctrinale of 1199 listed the following six meters as sufficient for an adequate knowledge of metrics: dactyl, spondee, trochee, anapest, iamb, and tribrach. Inevitably, since it seemed persuasive to regard the six rhythmic modes as analogues of the six poetic meters in question, the issue has been raised whether his arrangement had any influence on the rise of the modal system. ${ }^{98}$ (The opposite seems a chronological impossibility. $)^{99}$ The circumstances referred to in the preceding paragraph do not help to support such a hypothesis. Neither does the order in which Alexander lists his six meters; ${ }^{100}$ and neither does the notion of the fourth mode, which, in contrast to the third, "dactylic" mode, was not in use, according to the anonymous writer often called Dietricus in modern musicological literature. In the metrical system dactyls and anapests were of equal standing. Why then, if-without authorization from medieval authors-one transfers metrical nomenclature to the rhythmic modes, would anapests be included in that system? ${ }^{101}$ The significance of the number 6 helped to frame both systems. But while it may be "hard to believe that educated men would not have recognized the parallel," ${ }^{102}$ nevertheless it seems that the modal system independently arose from musical, i.e., polyphonic, developments. ${ }^{103}$

Apparently it is due to both the independence of these disciplines and yet also to the tradition of equality of syllables in rithmi that Notre-Dame music had its way with them. Not only conducti, but, more strikingly, motets of the thirteenth and fourteenth centuries demonstrate the extent to which composers generally regarded the poets' words as raw material, whose syllabic constituents could be kneaded to fit the necessities of musical structure. To cite Ewald Jammers's, penetrating observation, the system of rhythmic modes in conjunction with regularly structured poetry is simply "an especially distinct kind of syllable-counting." 104 Abundant

[^172]examples exist of what to a humanistic orientation would be horrendous declamatory solecisms. ${ }^{105}$ Three specimens from ca. 1300-one French and two English—are cited here (example 3). ${ }^{106}$


[^173]For both conductus and motet the fundamental requirement was that the musical and poetic entities displayed structural concinnity so that the imperatives of ordo and ratio could be seen to have been fulfilled. Elements below the level of the properly constituted verse and of the properly constituted musical phrase were free and structurally insignificant, at least before the gradual development of ornamental isorhythmic procedures.

Even the Latin polyphonic songs (cantilenae) composed in fourteenthcentury England, though clearly far more solicitous of the accents of the words, ${ }^{107}$ occasionally still sacrifice them to the rhythmic regularity of the musical setting to which the syllables are tied. Nevertheless, the lilting musico-poetic lyricism of this usually non-melismatic genre may well have been an outstanding factor in the English music that so delighted Continental listeners in the early fifteenth century. ${ }^{108}$ Its influence may justifiably be assumed to have at last given a strong impulse to composers' increasing attention to accentually correct declamation. Before that time, however, such tendencies are not significantly in evidence, and neither poetry nor treatises on poetry can be seen to have played a role.

The Montpellier Codex (Madison, Wis.: A-R, 1978), 3:195. Without explanation both editors chose to disregard the Franconian subdivision of the breve evidently mandated by the notation of most of the compositions preserved in the seventh and eighth fascicles of the manuscript. A reasonable rule of thumb would be to apply Franco's rule when the syllabic subdivision of the breve is both binary and ternary. But even in more conservative compositions the more modern (Franconian) notation might well be regarded as an indication of more modern performance practice. (b) Ernest H. Sanders, ed., Polyphonic Music of the Fourteenth Century 14 (Monaco: Oiseau-Lyre, 1979), 88. (c) Frank L. Harrison, ed., Polyphonic Music of the Fourteenth Century 15 (Monaco: Oiseau-Lyre, 1980), 30.
${ }^{107}$ As indicated also by the relatively frequent upbeat beginnings. Some English compositions of the late thirteenth century using breves as well as longs for their text settings (e.g., Polyphonic Music 14, nos. 32, 34, 36, and 43) already exhibit compelling sensitivity to accentual features.
${ }^{108}$ See Ernest H. Sanders, "Die Rolle der englischen Mehrstimmigkeit des Mittelalters in der Entwicklung von Cantus-firmus-Satz und Tonalitätsstruktur," Archiv für Musikwissenschaft 24 (1967): 39-41 and 52-53.

## ADDITIONS AND CORRECTIONS

Note: Additions or corrections which fall nearer the foot of the page are indicated in the following way: p. 234, l. 7b. to indicate a correction on page 234 seven lines from the bottom of the page.

## I: Tonal Aspects of 13th-Century English Polyphony

p. 22, n. 21, 1. 7: Substitute the land for (my?) native land.
p. 24, 1. 5: Substitute 17 for 19.
p. 24, ll. 6-7: Delete MS Oxford, B.L., Corpus Christi College, 497, No. 9; MS Oxford, B.L., Mus. c. 60 , No. 5 ;
p. 24, n. 39: Delete the first sentence.
p. 24, n. 40: Substitute IIA for IIB
p. 28, Ex. 4: The first word of the middle voice is Meroris.

## II: Cantilena and Discant in 14th-Century English Polyphony

p. 10, n. 21, 1. 1: The Leeds manuscript was acquired by the British Library more than ten years ago: MS $\operatorname{Lbm}$ 62132A.
p. 11, Ex. 1: The first note of the middle voice must be preceded by a sharp, which also applies to the next $f$ in that voice.
Ex. 12: For a more recent transcription see Polyphonic Music of the Fourteenth Century, vol. 14 (1979), p. 208.
For a more recent edition of many of the 'Worcester Fragments' see Polyphonic Music of the Fourteenth Century, vols. 14 and 17 (1986).

## III: The Question of Perotin's Oeuvre and Dates

p. $241,1.5$, and p. 243, n. 10: There are actually 157 , since Nos. 315,337 , and 393 contain two items each.
p. 243, 11. 6b.-5b.: One composition in MS Cambridge, Un.Lib. Ff. 1.17, f. 4 (Verbum patris umanatur) consists of three voices, and one of the organa in the manuscript containing the Milan organum treatise is written mostly for three, at times for four or two voices. Not quite half of its concords contain more than two different pitches.
p. 245, ll. 9-14: Husmann's argument regarding St. Germain-l'Auxerrois has been refuted by Craig Wright, Music and Ceremony at Notre Dame of Paris, 500-1550 (Cambridge, 1989), 256-57; this does not, however,
affect the proposed time span for the composition of the Tripla.
p 245, 1. 20: C. 1202, according to Craig Wright, 'Leoninus, Poet and Musician', Journal of the American Musicological Society 39 (1986), 1-35.
p. 248, 1. 10b.: Wright presents evidence suggesting that he died in 1238 and that he cannot have been born later than c. 1170 (Music and Ceremony, 291-94).
p. 248, 1. 1b.: The modal system was in all probability a didactic invention of Johannes de Garlandia; see Ernest H. Sanders, Review of Le Magnus Liber de Notre Dame de Paris, vol. V, ed. Rebecca A. Baltzer (Monaco, 1995), Plainsong and Medieval Music 6 (1997), 77-78.
Add after final paragraph: For a summary article see this writer’s 'Perotinus', Dictionary of the Middle Ages, vol. IX (New York, 1987), 506-508.
There has been a tendency in recent writings to belittle the meager evidence for the historicity of Leoninus and Perotinus and of the latter's works, e.g. Hendrik van der Werf ('Anonymous IV as Chronicler', Musicology Australia 15 [1992], 3-13), who in his primary concern with Leoninus offers his considered opinion that 'the anonymous data about Leoninus should not have to be disproven before we dismiss them as legendary' (p. 4). On the other hand, the good possibility that the loss of other documentation has robbed us of more evidence remains unmentioned, quite apart from the fact that, in contrast to the acknowledged reliability of Anonymous IV's technical information, his biographical tidbits are disparaged and summarily discounted. (With respect to Perotinus, see Edward H. Roesner's 'Comment', ibid., 13-15, especially 14a).
Anna Maria Busse Berger, in following this line of thinking, asserts peremptorily that 'there are now few left who would try to atribute specific pieces to either Leonin or Perotin' ('Mnemotechnics and Notre Dame Polyphony', The Journal of Musicology 14 [1996], 265). As long as two dozen years ago Ludwig Finscher had described the testimony of Anonymous IV as anecdotal confirmation and support of a general tradition ('Die "Entstehung des Komponisten", International Review of the Aesthetics and Sociology of Music 6 [1975], 31). But these views slight the fact that in his report on Perotinus Anonymous IV singles out - before others he names - a singular man ('a red-cheeked composer', as Walter Wiora once put it conversationally), who for the first and earliest possible time created largescale works that are fully defined masterpieces and also created the revolutionary new genre of the clausula, the progenitor of the motet. The organa tripla and quadrupla composed by him according to the anonymous author, are characteristic enough to have caused Friedrich Ludwig and other scholars to ascribe other settings to him, e.g. Mors, Alleluia V. Pascha nostrum etc. Leoninus, too, deserves the special mention accorded him in the
treatise, not only for the comprehensiveness of his magnus liber, but also for the stylistic advances of what may be regarded as his discant style in comparison with the organa of the Vatican Organum Treatise; see Hartmut Schick, 'Musik wird zum Kunstwerk', Studien zur Musikgeschichte: Eine Festschrift für Ludwig Finscher (Kassel, Bärenreiter, 1995), 34-43.

Other notable individuals are, contrary to Finscher, p. 32, cited before the mid-14th century, such as Petrus de Cruce (Jacobus Leodiensis; see Corpus Scriptorum de Musica 3 [1973], 36 (cantus in the context means 'motets'). Though Philippe de Vitry was famous for many non-musical accomplishments, he was also regarded by his contemporaries (not just by Besseler) as an outstanding composer, who, in the words of Gace de la Buigne (c. 1370), 'mieulx fist motets que nulz home' (Ake Blomqvist, ed., Gace de la Buigne, Le Roman des Deduis, Studia Romanica Holmiensia, III [1951], 316).

## IV: The Medieval Motet

p. 509, n. $43,1.1$ : Precede with: See especially the relevant passage in the treatise of the St.-Emmeram Anonymous (1279!) quoted in note 6 of my review cited above (for p. 248, l. lb. of item III).
pp. 519-21: With regard to examples $27-29$ it seems important to call attention to note 73 on page 520 and to emphasize again that the transcriptions and analyses reflect a principal feature of Notre-Dame notation: at the intonations preceding the organa and at important cadence points the thickening of single notes or ligatures is generally not intended to convey precise and often distorting mensural meanings, but rather to signal a broadened delivery. Even when not notationally indicated in this manner, such a rallentando is often called for at the end of a section or a group of phrases.
p. 525, n. 98: Also Richard Krautheimer, 'Introduction to an "Iconography of Medieval Architecture"', Journal of the Warburg and Courtauld Institutes 5 (1942), 7ff.
p. 528, 1. 12b.: To eliminate an unfortunate cliché, read: music, as numerus sonorus, was molded into . . .
p. 547: The great motet De sancta Katerina was treated with the care and thoroughness it deserves by Margaret Bent ('Rota versatilis - towards a reconstruction', Source Materials and the Interpretation of Music: A Memorial Volume to Thurston Dart, ed. lan Bent [London: Stainer \& Bell, 1981], 65-98). The a in m .7 of voice II should surely be a g . The editorially supplied initial rest in voice I should be deleted and the first and third notes must be understood as double longs; each of these notes must therefore be represented in measures 1 and 2 of the transcription by a dotted crotchet tied to a crotchet (as for instance in m. 23 of voice II).
p. 548, Ex. 39, 3rd system: Notes 3 ands 4 should be crotchets, followed by a barline, two quavers and a minim.
p. 553, nn. 225 and 227: See also Gordon A. Anderson, 'Thirteenth-Century Conductus: Obiter Dicta', The Musical Quarterly 58 (1972), 361-64.
p. 563, n. 279: The reference in the last line is to n .270 , not 210.
p. 569, n. 308 and p. 571, Ex. 42: The composer, Marchettus de Padua, is identified acrostically; see F. Alberto Gallo, 'Marchetus in Padua und die "franko-venetische" Musik des frühen Trecento', Archiv für Musikwissenschaft 31 (1974), 42-56. Gallo's reading differs from the one given here in its placement of the lowest voice in the middle and in his perhaps less preferable interpretation of the mensuration.

## VI: The Early Motets of Philippe de Vitry

p. 32, 1.22 (fourth line of poem): fastum?
p. 43, l. 7: A better emendation might be urget = pushes ahead aggressively.
p. 43, Critical Commentary: Triplum, between 66 and 80 insert: 70: terget.

## VII: English Polyphony in the Morgan Library Manuscript

Add after final paragraph: ‘ . . . the Gloria in the same manuscript, heretofore regarded as monophonic, is another uniquely progressive composition, namely a two-voice canon with a supporting tenor . . . The probable time of composition of this piece (c. 1350-60) is contemporaneous with that of the identically composed Italian caccie, but considerably precedes any other known canonic Gloria. Its style suggests that this was a relatively novel experiment' (Polyphonic Music of the Fourteenth Century, v. 17, p. X). 'The dux (top voice) occupies the bottom six fully visible staves of the page [fol. 8 (5a)] plus about an inch of the next staff, of which, because of the cropping of the folio, the top two lines just barely escaped obliteration. III and any instruction (canon) for the canonic duplication of the top voice must have occupied the rest of that staff as well as an additional one compressed at the bottom of the page'. (Ibid., p.185a.)
The g in $\mathrm{m} .20(d u x)$ and m .26 (comes) very probably was intended to be an f .

## VIII: Consonance and Rhythm in the Organum of the 12th and 13th Centuries

p. 276, Ex. 2: The first note should be e, not f. Regarding the passage in M 8 see Norman E. Smith, 'Interrelationships among the Alleluias of the Magnus liber organi', Journal of the American Musicological Society 25 (1972), 197-99, and Rebecca A. Baltzer, 'Notation, Rhythm, and Style in the Two-Voice Notre Dame Clausula', Boston University Dissertation (1974), p. 442.

Addition to final paragraph: For correspondence resulting from this article see Journal of the American Musicological Society 34 (1981), 588-91.

## IX: Sine littera and cum littera in Medieval Polyphony

p. 216, end of n. 3: As regards the stylistic priority of $W_{1}$, see Chapter XII below, n. 32.
p. 216, 1. 11: Properly, 157; see annotation for p. 241 of item III above.

## X: Style and Technique in Datable Polyphonic Notre-Dame Conductus

p. 512, 11. 1-3: The derivation of the second mode from the third no longer seems tenable.
p. 513, 1. 13 of poem: Thus in Anderson's translation; properly: the bride of Zion.
p. 517, 1. 19: 'Quite possibly' he was Philip the Chancellor; see Thomas B. Payne, 'Associa tecum in patria: A Newly Identified Organum Trope by Philip the Chancellor', Journal of the American Musicological Society 39 (1986), 238, n. 12.
p. 521: Thomas B. Payne in the Introduction to his Les Organa à Deux Voix du Manuscrit de Wolfenbüttel, Herzog August Bibliothek Cod. Guelf. 1099 Helmst. (Le Magnus Liber Organi de Notre Dame de Paris, v. VI, Monaco, 1996), n. 19, considers Sol eclypsim patitur as 'probably composed in 1252', not in (or shortly after) 1188.
p. 524, first system: Delete bracket before the text in the tenor.
p. 524, second system: move ligature bracket over the two beamed notes.

## XI: Conductus and Modal Rhythm

p. 443, n. 21: Alternatively it could be surmised to have been on one of the missing pages of that fascicle.
p. 444, 11. 3-4: The earliest layer of the treatise is likely to date from c. $1180-c .1200$.
p. 449, 1. 6b: The rhythmic patterns of the second and third modes evidently came into use at that time.

XII: The Earliest Phases of Measured Polyphony
p. 47, last line: 2.9, not 2.10 .

## XIII: Rithmus

p. 423, n. 25, 1. 6: Correct to read: see also 421 above.

## INDEX OF NAMES AND TEXTS

Names of modern scholars are not included.
A virtutis/Ergo beata/Benedicta: V 256
Ad lacrimas/O speculum/Dulcis virgo tenor: IV 549
Adam de la Halle: II 24; IV 555
Ade finit perpete/Ade finit misere/A definement: IV 532
Agnus dei: II 31, 32; VII 174-6
Albane misse/Albane doctor: IV 569
Alleluia V. Dies sanctificatus: IV 501; XII 47
Alleluia V. Justus germinabit: II 8
Alleluia V. Nativitas: II 36; III 245; IV 505, 510, 513, 518, 532; XI 455
Alleluia V. Pascha nostrum: III 245, 246; IV 505, 511, 513, 518
Alleluia V. Posui adiutorium: III 245; IV 512, 518; VIII 275; XII 55
Alpha bovi: IV 522, 523
Aman novi/Heu fortuna/Heu me: VI 31, 36
Amborum sacrum spiramen: IV 516
Amerus: IX 219
Angelus ad virginem: II 31
Anima iugi: X 50; XI 455
Anima mea liquefacta est: IV 544
Anonymous de LaFage: VIII 264, 265, 269, 270; XII 50, 51
Anonymous I: II 35
Anonymous IV: I 22; III 241-3, 245, 246;
IV 497, 503, 508, 518; V 256;
VIII passim; IX 216, 220, 222, 223;
XI 445, 447, 448, 450, 451, 453, 467;
XII 41, 42, 44, 53, 55; XIII 437
Anonymous V: II 46
Anonymous VII: IV 557; VIll 278; XII 55
Anonymous Saint-Emmeram: V 248; VIII 271, 280; IX 222, 223; XI 446, 448, 451, 453, 467: XII 53, 55, 58
Austro terris: X 505; XI 462
Ave gloriosa mater: IV 515, 516
Ave miles/Ave rex: IV 543
Ave regina/[Tenor]/Mater innocencie: IV 571-3
Ave virtus/Prophetarum/Infelix: IV 566

Beata viscera: II 51
Beatis nos adhibe: IV 510
Benedicamus domino: IV 518
Billart: IV 567
Boethius: IV 525
Brassart: IV 566
Bulla fulminante: X 505, 5I7; XI 455
Carnalitas luxuria: VI 24, 35
Caro/His hec/Anima: IV 552
Cassiodorus: IV 525-7
Cesaris: V 256
Chirbury: II 15, 45
Christi messis: II 11-12
Ciconia: IV 569, 570; V 256
Clavus pungens: XI 454
Colla iugo/Bona condit/Libera me: VI 37
Columbe simplicitas: IV 514; XI 454
Conditor alme siderum: II 42, 44
Conducti, list of datable: X 521-522
Constantes estote: II 37
Cooke: II 15
Credo: II 32
Crucifigat omnes: X 505, 513-18; XI 454, 455
Cum statua/Hugo/Magister invidie: VI 37
De rupta Rupecula: X 512
Deduc Syon: XI 461, 462
Deo confitemini: IV 515
Descendit: IV 501
Deus in adiutorium: VI 25
Die Christi veritas: X 505
'Dietricus': IX 218, 219, 229; XI 451, 467; XII 56
Discantus positio vulgaris: IV 500, 515, 530; VIII 266-68, 271, 277, 286; IX 215, 218; XI 444, 447, 452, 453; XII 43-6, 50, 51, 55, 56
Doctorum principem/Melodia suavissima: IV 570
Doleo/Absalon: IV 547-9
Domino: IV 513, 518, 522, 523

Donatus de Florentia: V 252
Douce playsance/Garison/Neuma quinti toni: VI $26,28,30,31$
Dufay: IV 567, 569-71; V 256
Dunstable: IV 549, 570
Ecclesie vox hodie: IV 533
Eclypsim patitur: X 505
Egidius de Murino: IV 556, 559
Equitas in curia: XI 460
Et confitebor: IV 541
Et exalta vi magna/Et exaltavi: IV 532
Et exaltavi: IV 512, 521, 523
Et gaudebit: IV 522
Ex semine: IV 510-12, 514, 518, 521, 523, 532

Factum est salutare: IV 511
Fiat: VIII 274, 275
Filie Jerusalem: IV 541
Firmissime/Adesto/Alleluya: VI passim
Floret/Florens/[Tenor]: VI passim
Flos de spina: XI 454
Flos filius: IV 523, 524
Flos regalis: XI 459, 460
Franco: IV 522, 526, 550, 551; V 248, 252;
VI 29; VIII 285, 286; IX 223, 224; XI 446, 452, 468, XII 47, 50, 52, 53, 56; XIII 440
Fusa/Labem: IV 544
Gemma nitens: II 22
Gherardellus de Florentia: V 252
Giraldus Cambrensis: I 22
Gloria: II passint
Gloria ad modum tubae: V 256
Grenon: IV 566; V 256
Guido: XII 41
Hec dies: IX 228
Heu fortuna/Aman novi/Heu me: IV 558
Hieronymus de Moravia: I 24; IV 498, 515, 530; VIII 266, 286; IX, 215 ; XII 46
Homo quam sit pura: IV 514
Hoquetus David: V 251
Hostis Herodis: IV 546
Impudenter/Virtutibus/[Contratenor]/Rex regum: VI 37
Includimur nube caliginosa: II 31
In excelsis gloria: XI 460
In nova fert/Garrit gallus/Neuma: IV 558; VI passim
In odorem: III 245, 246; IV 505, 519, 521-3
In te concipitur: XI 459

Jacobus Leodiensis: IV 525, 526, 533, 550, 551, 554, 557; V 251; VIII 286
Januam/Jacintus/Jacet granum: IV 543
Jehannot de l'Escurel: IV 555
Johannes de Garlandia: II 14; VIII passim; IX 223, 227, 230; XI passim; XII 41, 49, 52-6; XIII 423
Johannes de Grocheo (Grocheio): IV 526, 527, 530, 557; V 253-5; XI 446
Johannes de Muris: IV 558
Kyrie: II 32, 39-41
Kyrie cunctipotens: IX 228
L'aquila bella: V 252
Lambertus: IV 526; V 248; IX 223; XI 445, 447, 448, 451; XII 53
Latex silice: IV 514-16, 534
Latus: IV 515, 518, 521, 523
Laus honor Christo vendito: I 552
Leoninus: III 242, 244, 245; IV 497, 498, 502, 505, 529; IX 216, 230; XI 450; XII 42, 51, 54, 57
Loqueville: IV 566
Lu: IV 518
Lucida pecorella son: V 252
Lux lucis: III 246
Machaut: IV 545, 555, 558, 559-565, 568; V 251
Magnificat: II 42, 43
Magnus liber: III 241, 242, 244, 245, 248;
IV 501, 506, 517; VIII 272, 274, 276, 285; IX 216, 218, 224, 228; X, 506; XII, 45, 46, 50, 52, 54, 55, 57
Manere vivere: IV 515, 516
Maniere esgarder/Manere: IV 532
Mater formosa/Gaude virgo/[Tenor]: VI 25
Matteo da Penugia: IV 569
Mellis stilla: IV 516
Mens fidem: IV 522, 523
Micrologus: XII 141
Minor natu filius: X 505; XI 455
Missus Gabriel de celis: XIII 435
Mors: II 27; III 246; IV 505, 507, 523
Musica enchiriadis: XII 41
Neuma: VI 26
Nostrum: IV 511,513,518,521,523
Novus miles: X 513, 518-20
Nulli beneficium: XI 454
Ofelix Bituria: X 509-11; XI 464, 465
Oflos/Sacris pignoribus: IV 566

O quam glorifica/O quam beata/O quam felix/[Pes]: IV 538
O quam sancta: IV 524
O varium fortune: XI 454
O vos pastores/Orbis orbatus/Fur non venit: IV 558; VI 36
Odington: I 19, 24; IV 533-5, 539; V 252, 253; VIII 286; XI 446, 452, 453

## Pange melos: X 508

Parit preter morem: XI 454
Perotinus: II 27; III passim; IV 501-4, 509, $510,512-14,518,519,524,526,528$, 529, 531, 534, 553, 570; V 246; VIII 276; IX 216, 218, 219, 229; X 506, 507, 510; XI 450, 455; XII 42, 46, 47, 55 , 56
Perpetuo numine: III 246
Petre clemens/Lugentium/[Tenor]: VI 37
Petrum cephas/Petrus pastor: IV 544
Petrus de Cruce: IV 550, 551, 559; VI 25, 26
Petrus Picardus (= Petrus de Cruce?): IX 223
Philippe de Vitry: IV 554-59, 562-65,
568-570; VI passim
Povre secours: V 248
Quatuor Principalia: II 47
Quem pium: III 246
Quem trina polluit: XI 460
Qui servare puberem: IV 514; XI 455-9
Quid scire proderit: IV 558
Quod promisit: X 505, 522; XI 454
Redit etas aurea: X 507
Regem regum collaudemus: VII 172, 173
Regi reyum: X 509
Relegentur ab area: X 505
Robert de Brunham: IV 544
Robert de Burgate: II 24
Robert de Handlo: IV 551; V 255; XII 41
Romanorum rex inclite: IV 566
Rosa/[Regali]/Regalis: IV 546
Rota versatilis: IV 547
Saint Augustine: IV 525, 526
Salvatoris hodie: IX 229; X 507; XII 55
Salve iuhar/Salve cleri: IV 543
Salve rosa: IV Ex. 33
Salve virgo virginum: II 8

Salve virgo/Vita via/Salve regina: IV 567
Sancta Maria virgo intercede: II 42
Sancle Germane: III 245; XII 55
Sanctus: II 32, 38, 40; VII 176
Scandit solium: IV 514
Sederunt: IV 509, 520-21; XII 47
Serena virginum: IV 515, 516
Singularis laudis digna: VII 172, 173
Solaris/Gregorius/Petre/Mariounette: IV 544
Soli nitorem: XI 455
Sowa Anonymous: see Anonymous SaintEmmeram
Spiritus et alme: II 24, 30, 41
Stirps lesseNirga cultus: IV 524
Summer Canon: I 20, 22, 23, 24, 33; IV 560
Suspiria/Meroris: I 28-30
Talent m'est pris: I 23
Te deum: II 41, 42, 48
Timete: IV 501
Tota pulchra/Anima mea: IV 539
Tribun/Quoniam/Merito: VI 27, 29, 31, 36
Trop est fol: V 254
Tu capud ecclesie/Tu es Petrus/[Veritatem]: IV 541
Tuba sacre fidei/ln arborisNirgo sum: VI 37
Tunstede (Pseudo): II 14, 31, 35, 45, 47; V 253
Ut te/lngens: IV 569
Valare: IV 537
Veni doctor previe: IV 510
Veni sancte spiritus: IV 549
Verbum bonum et suave: XIII 435
Veri solis radius: IX 228
Veri vitis: V 255
Victime paschali laudes: II 37
Viderunt: III 244; XII 47
Vidit rex: IV 516
Virgo salvavit hominem: II 22-3
Virtus est complacitis: IV 514
Vos quid/Gratissima/[Contratenor]/Gaude gloriosa: VI 37

Ypocrite/Velut stelle/Et gaudebit: IV 524, 537, 556

Zelo/Reor: IV 544, 545

## INDEX OF MANUSCRIPTS

Bamberg, Staatsbibliothek
Lit. 115 [Ba]: IV 508, 531, 534, 554; V 250, 251, 256; VIII 283
Brussels, Bibliothèque Royale II 266: II 29
19606: VI 24, 27, 31
Burgos, Monasterio de Las Huelgas [Hu]:
IV 508, 530, 561; X 517; XI 454-5
Cambrai, Bibliothèque Communale
B. 1328: VI 26, 31

Cambridge, Corpus Christi College Library 65: II 36; IV 544
Cambridge, Gonville \& Caius College Library
334/727: II 11, 38, 40-42, 48
512/543: I 24, 27; II 11, 22, 34, 42; IV 547
810/820: I 24-7; II 8
Cambridge, Jesus College Library
Q.B. 1 [Cjec]: X 518, 523

Cambridge, Pembroke College Library 228: I 27; II 22
Cambridge, Saint John's College Library 138 (F.l): XI 458
Cambridge, Trinity College Library 0.2.1: I 33; IV 541

Cambridge, University Library
Ff. 1. 17: IX 225
Ff. 2. 29: XII 47
Kk. 1. 6: II 42
Chantilly, Musée Condé 564: IV 565, 567, 568
Chicago, University Library
654 app.: I 19; II 24, 28, 29; IV 539
Codex Calixtinus: see Santiago de Compostela
Darmstadt, Hessische Landes- und
Hochschulbibliothek
347: XI 454
Durham, Cathedral Library Cod. C 1.20: IV 549
Durham, University Library, Bamburgh Collection
Select 13: IV 541
Florence, Biblioteca Medicea-Laurenziana Plut. 29.1 [F]: I passim; III passim; IV Exx.

1-32 passim. p. 501, 503, 505-508, 513, $514,516,521,522,524,532,535,553$, 554, 557; V 255; VIII 272, 273; IX passim; X 505-12; XI 455, 456, 458, 459, 463, 465; XII 44-8, 54-6
Fountains Abbey: see London, British Library Add. 62132A

Heidelberg, Universitätsbibliothek 2588: XI 454

Ivrea, Biblioteca capitolare
[Iv]: IV 564-65
Leeds: see London, British Library, Add. 62132A
London, British Library
Add. 24198: IV 546
Add. 28550: VI 27
Add. 36881: IX 225, 228
Add. 4001 IB [LoF]: II 31-4, 43; IV 566
Add. 40725: II 32
Add. 57950: see Old Hall
Add. 62132A: II 10, 36, 37
Arundel 14: II 32, 34, 35, 38-41, 48
248: II 8
Cotton Titus D. XXIV: II 17
Egerton 2615 (LoA]: IV 515, 516
Harley 978: I 24, 32
Lansdowne 763: II 48
Sloane 1210: II 18, 19, 21, 22, 32-4; IV 544, 545
London, Public Record Office E 149/7/23 dorse: II 31
London, Westminster Abbey
33327: III 246; IV 560
Madrid, Biblioteca National
20486 [Ma]: III 244; IV 515, 533; V 251, 255; VIII 283; X 507; XII 44, 48, 49, 55
Montpellier, Bibliothèque interuniversitaire, Section Médecine
H. 196 [Mo]: II 27; IV 508, 531-4, 536, 537, 540-2, 551-5, 561, 568; V 250, 251, 253, 254; VI 25-7; VIII 283; XII 55; XIII 439

München, Bayerische Staatsbibliothek gallo-rom. 42 [MüA]: IV 506, 509, 514, 522, 523, 532; XII 56

New York, Morgan Library
M. 978: VII 172

Old Hall (London, Br. Lib., Add. 57950): I 23; II passim; V 256
Oxford, Bodleian Library
Arch. Selden, B. 14: II 41
Barlow, 22: II 36
Barlow, 55: II 31, 36
Bodley, 257: I 22; II 7; XI 459
Bodley, 384: II 16
Bodley, 652: IV 546
Can. Class. Lat., 112: IV 569
Corpus Christi College, 489: II 8; XI 460
Corpus Christi College, 497: I 19, 27; II 8
E Museo, 7: IV 543, 544, 549, 560
Fairfax, 27: II 17, 38
Hatton, 81: IV 543, 546, 560, 561
Laud. Lat., 95: II 42, 44
Mus. c. 60: I 31; II 7, 8, 24, 27, 41
Mus. d. 143: II 31, 36
Rawlinson, c 400*: I 31, 32
Rawlinson, G. 18: IV 516
Wood, 591: I 19
Oxford, New College
362 [ONC]: II 29; IV 532, 541-4, 560; V 254

Paris, Bibliothèque de l'Arsenal
135: IV 553
Paris, Bibliothèque Nationale, Coll. de Picardie
67: VI 25, 27
Paris, Bibliothèque Nationale
f. fr., 146 [Fauv]: IV 530, 552, 553, 555, 556, 558; VI passim; XI 454
f. fr., 571: VI 25
f. fr., 11411: V 250
f. lat., 15139 [St. Victor]: III 247, 248; IV 506-9, 530, 536, 551, 553; XI 455, 467
f. lat., 3549: IX 228
f. lat., 3719: IX 228
nouv. acq. fr., 13521 [Cl]: IV 523, 531, 534; XII 44
Princeton, University Library
Garrett 119, Fragment A: I 20, 24; II 10; IV 539

Rome, Biblioteca vaticana
Ottob. Lat. 3025 [Vatican Organum Treatise]: IX 224, 225
Rome, Convento di Santa Sabina, Biblioteca della Curia Generale dei Domenicani XIV L 3: XI 454

Santiago de Compostela: IX 224, 228; XII 45
Studley Royal: see London, British Lihrary, Add. 62132A

Torino, Biblioteca Nazionale
J.II. 9 [TuB]: IV 567, 570

Torino, Biblioteca Reale
Vari 42: VI 25
Wolfenbüittel, Herzog August-Bihliothek Helmst. 628 [WI]: III 244, 246, 247; IV Exx. 1-31 passim; 501, 504-7, 513-15, 517, 521; V 255; VIII 272, 273, 284; IX passim; X 505-12, 517; XI 455, 457, 458; XII 45, 46, 48, 54, 55
Helmst. 1099 [W2]: III 244, 247; IV Exx. 1-26 passim; 501, 505, 506, 516, 522, 523, 531, 533, 534, 541, 568; VIII 272, 273; IX 216, 227; X 517; XII 44, 47, 48, 54-6
Worcester Fragments: I 19-22, 24, 27, 31, 33, 34; II passim; IV 511, 516, 539-41, 543, 544, 559-61; VII 174


[^0]:    ${ }^{1}$ A corrected treatment of that subject can be found in my article on Petrus Le Viser in The New Grove Dictionary of Music and Musicians 14 (1980), 600-601.
    ${ }^{2}$ Dolores Pesce, 'A revised View of the Thirteenth-Century Latin Double Motet', Journal of the American Musicological Society 40 (1987), 405-42; Patricia N. Norwood, 'Evidence Conceming the Provenance of the Bamberg Codex', The Journal of Musicology 8 (1990), 491-504.
    ${ }^{3}$ Counterpoint and Compositional Process in the Time of Dufay: Perspectives from German Musicology, ed. Kevin N. Moll (New York and London: Garland, 1997), 327-62.

[^1]:    ${ }^{4}$ A recent examination of this development is Section 3 (pp. 37-48) of Roland Eberlein's Die Entstehung der tonalen Klangsyntax (Frankfurt, 1994), an acute and lucid investigation of the compositional circumstances accounting for the rise of the octave-leap cadence.
    ${ }^{5}$ On this topic see Shai Burstyn, 'In quest of the period ear', Early Music 25 (1997), 693-701, and Peter Schubert, 'Authentic Analysis', The Journal of Musicology 12 (1994), 3-I8.

[^2]:    ${ }^{6}$ Op. cit., 60,62 - 'The lowest tone of any given sonority I define as the "referential pitch"" (p. 38).

    7 Sanders, ibid., 340.
    ${ }^{8}$ Music and Ceremony at Notre Dame of Paris, 500-1550 (Cambridge, 1989), 335.
    9 'Mnemotechnics and Notre Dame Polyphony', The Journal of Musicology 14 (1996), 266.
    10 'Notre Dame Manuscripts and Their Owners: Lost and Found', The Journal of Musicology 5 (1987), 390. Wright also raises the issue of such music having been inscribed in books 'owned by individual singers, not corporately by the church' (Ioc. cit.).

[^3]:    ${ }^{11}$ Fritz Reckow, Der Musiktraktat des Anonymus 4, 2 vols. Beihefte zum Archiv für Musikwissenschaft 4-5 (1967), 1, 48. Other relevant passages: ' . . . in diversis voluminibus organi ..., (p. 33); also see pp. 40; 82 (where he lists six volumina, each containing a particular polyphonic genre). A volumen is a usually separate small book, several of which could be combined into a larger book (liber). The fascicles in such a manuscript as F were doubtless copied from separate volumina. The largest of the fascicles in F comprises barely more than one hundred folios, in contrast to such service books (libri) as graduals and antiphonaries. The terminological distinction between liber and volumen was not carefully maintained, however.

[^4]:    ${ }^{20}$ S. Anm. 50.
    ${ }^{1}$ For purposes of definition rondellus is considered as involving all three voices of a composition; cf. Odington's example printed in Coussemaker, Scriptorum de Musica medii aevi, vol. I (Paris 1864), p. 247a. The term Stimmtausch is restricted to the application of the same technique of voice exchange to two voices.
    ${ }^{2}$ The Worcester Fragments, ed. Luther A. Dittmer, Ametican Institute of Musicology, Musicological Studies and Documents, vol. II ([Dallas] 1957), Nos. 5, 89, 90, 92, 93, 107; also the Flos regalis in MS Oxford, Bodleian Library, Corpus Christi College, 489, fol. 1-1.
    ${ }^{3}$ WF is used as siglum for Worcester Fragments. WF No. 21 is evidently not a rondellus, but a rota; cf. Ernest H. Sanders, Duple Rhythm and Alternate Third Mode in the 13th Century, in: JAMS XV (1962), n. 121. To be sure, in their effect rondellus and rota are nearly identical.
    ${ }^{4}$ For the Chicago manuscript see Oxford, Latin Liturgical D 20; London, Add. MS 25031; Chicago, MS 654 App., in: Institute of Mediaeval Music, Publications of Mediaeval Musical Manuscripts, No. 6 (Brooklyn 1960).
    ${ }^{5}$ The conducti on fols. 1 and 2 of MS Oxford, B. L., Wood 591, show similar features. Inventory of the manuscript by Gilbert Reaney, Some Little-Known Sources of Medieval Polyphony in England, in: MD XV (1961), pp. 19-20.

    - The piece is in $C$ (lonian). Its text structure produces the following musical design:
    $\mathrm{cab} f \mathrm{dec} \mathrm{c}$ b
    bca efd bca
    abc def abc.

[^5]:    ${ }^{7}$ For the sake of convenience, the nomenclature customarily associated with the degrees of the major and minor modes is here applied to the other modes also.
    a The frequent appearance of the flat as a key signature and even as a clef in English 13th-century music, which is a specifically English trait-Friedrich Ludwig, Die geistliche, nidhtiturgische, weltliche einstimmige und die mehrstimmige Musik des Mittelalters, in: Handbuch der Musikgeschichte, Gumo Adler, ed. (2nd ed., Frankfurt 1929), p. 220-supports Bukofzer's assumption that Giraldus Cambrensis's famous reference to "the enchanting delight of b-flat" indicates a special preference for F-major; cf. his The First Motet with English Words, in: ML XVII (1936), p. 231.

    - Cf. Manfred F. Bukofzer, Studies in Medieval and Renaissance Music (New York 1950), p. 24.

    10 The text distribution in No. 41 is unusual; while, contrary to Apfel's claim-Ernst Aprel, Studien zur Satztechnik der mittelalterlichen englischen Musik, vol. I (Heidelberg 1959), p. 51-there is no polytextuality, which is rarely encountered in Stimmtausch compositions, the musical repetitions are not paralleled by textual repetitions; rather, the text is continuous:

    | Triplum: | b (melisma) | a (melisma) | d ( $\alpha$ ) | c | f $(\boldsymbol{\gamma})$ |
    | :--- | :--- | :--- | :--- | :--- | :--- |
    | e $\ldots .$. |  |  |  |  |  |
    | Duplum: | (melisma) | b (melisma) | c | d $(\beta)$ | e |
    | Tenor: | A | A | B | B | C |
    | T | C.... |  |  |  |  |

    (Greek letters indicate text.)
    ${ }^{11}$ Cf. Kenneth J. Levy, New Material on the Early Motet in England, in: JAMS IV (1951), pp. 232 f. Dittmer's inclusion of WF Nos. 87, 96, 108, and 109 in his "Voice Exchange" table (The Worcester Fragments, pp. 57 f .) is incorrect, since simple repetition rather than Stimmtausch is involved.
    ${ }^{12} \mathrm{Cf}$. Sanders, Duple Rhythim, pp. 269 ff.
    ${ }^{15}$ In the last preserved Stimmtausch section of the conductus No. 92 they extend over ten such measures, while in the motet No. 23 they seem to cover 15 and 17 measures. In spite of Dittmer's ingenious reconstruction of No. 23 it is possible that it is not a motet containing Stimmtausch, especially in view of the fact that unlike other such compositions, it has no non-imitative coda.
    ${ }^{14}$ Frank Ll. Harrison, Music in Medieval Britain (London 1958), p. 144 (cf. also the same author's Rondellus-Rota, in: MGG 11, col. 885). Harrison doubts that the English text of the rota was earlier

[^6]:    ${ }^{18}$ Similar examples of such tenor design are WF No. 41 and the Princeton motet; cf. also the conductus WF No. 92. In WF Nos. 41 and 16 each Stimmtausch section is connected to the next by the same musical refrain motive, while the pes rests. In No. 41 one or the other of the two voices also carries a textual refrain ("o Maria") at those junctures.
    ${ }^{20}$ That the alternation of tonic and supertonic harmonies delighted English musicians for centuries to come was recently pointed out by Daniel Heartz in Parisian Music Publishing under Henry II, in: MQ XLVI (1960), pp. 465 f.; cf. also Heinkich Besseler, Bourdon und Fauxbourdon (Leipzig 1950), pp. 113 f.
    ${ }^{21}$ Both the frequent occurrence of the major mode and what Handschin has called "Terzenfreundlidhkeit" - Der Organum-Traktat von Montpellier, in: Studien zur Mustkgeschichte: Festschrift für Guido Adler (Wien 1930), p. 54; Musikgeschichte im Oberblick (Luzern 1948), p. 196-have often been referred to as characteristic of English medieval music. English writers describe both features, Giraldus Cambrensis the former (cf. n. 8 above), and Anonymus IV, in a much-quoted passage (Coussemaker, Scriprotum, vol. I, p. 358b), the latter: "However, by the best composers and, correspondingly, in some regions, as for instance England-in (my 7 ) native land known as Westcountry [major and minor thirds] are called the best consonances, because they use them more." Actually, the author's reasoning is a bit awry; thirds were used more, because they were considered the best consonances. Cf. also Coussemaker, Scriptorum, vol. I, p. 360a.
    ${ }^{22}$ Regularity of phrase structure is very cleverly concealed in WF No. 41 not only through the refrain tacked on to each texted phrase (cf. n. 19 above), but also by melismatically extending the beginning of each texted phrase one measure backward. Thus, the coincidence of the phrases of two voices that obtains in WF No. 16 is here avoided altogether.
    ${ }^{25}$ The term is borrowed from Arthur Mendel's felicitous translation of Hindemith's term "übergeordnete Zweistimmigkeft"; cf. Paui Hindemith, The Craft of Musical Composition, vol. I (London 1942), pp. 113 f.
    ${ }^{24}$ Cf. Thrasybuios Georgiades, Englische Diskantraktate aus der ersten Halfte des 15. Jahrhunderts (München 1937), p. 99.
    ${ }_{25}$ Also the compositions in MS Oxford, B. L., Bodley 257 (inventory in Ernest H. Sanders, Medieval English Polyphony and Its Significance for the Continent, Columbia University Dissertation, 1963, pp. 433-434). The conductus WF No. 92 and the rondelli WF Nos. 5, 31, 93, 94, and No. 5 of the Chicago manuscript are likewise confined to the interval of the octave. Not only rhythm (cf. SANDERS, Duple Rhythm, p. 269) and harmony (cf. p. 20 above), but also the expansion of the two-voice framework make WF No. 16 a progressive composition, similar to the palimpsest WF No. 41 and the motet in the Princeton manuscript.
    ${ }^{26}$ The third as final consonance is reported by Anonymus IV as characteristic of the "homines occidentales" (Coussemaker, Scriptorum, vol. I, p. 363b; cf. also ibid., pp. 354b f.).

[^7]:    ${ }^{27}$ Handschin, The Summer Canon and Its Background, in: MD III (1949), p. 87.
    ${ }^{28}$ "Sumer Is Icumen In": A Revision, in: University of California Publications in Music, II, 2 (1944), p. 97; cf. also Bukofzer, Popular Polyphony in the Middle Ages, in: MQ XXVI (1940), pp. 34 f . and 41 f.
    ${ }^{29}$ Apel calls them "'long-distance' canons"; cf. his Imitation in the Thirteenth ard Fourteenth Centuries, in: Essays on Music in Honor of Archibald Thompson Davison (Cambridge, Mass. 1957), p. 28.
    ${ }^{30}$ Jack A. Westrup, England; A. Mittelalter, in: MGG 3, col. 1364.
    ${ }^{31}$ Heinrich Besseler, Die Musik des Mittelalters und der Renaissance (Potsdam 1931), p. 171.
    32 Cf. Friedrich Gennrich, Bibliographie der ältesten französischen und lateinischen Motetten (Darmstadt 1957), p. 58 (Nos. 590 and 591) and Yvonne Rokseth, Polyphonies du XIIIe siècle (Paris 1939), vol. IV, p. 185.
    ${ }^{33}$ Apfel's statement that it is an English composition-cf. his England und der Kontinent in der Musik des späten Mittelalters, in: MF XIV (1961), p. 277 - seems to rest on a misunderstanding.
    ${ }^{34}$ Cf. Hans Tischler, English Traits in the Early 13th-Century Motet, in: MQ XXX (1944), p. 466. It is, however, inaccurate to describe the motet as consisting of Stimmtausch passages "throughout;" as Tischler himself had previously indicated in his dissertation (The Motet in 13th-Century France, Yale University Dissertation, 1942, p. 163), twelve of its sixty measures are written in free counterpoint.
    ${ }^{3}$ Rudolf Ficker, The Transition on the Continent, in: New Oxford History of Music, vol. III, p. 136. ${ }^{36}$ It also seems unlikely that the relative prominence of canons in the Old Hall manuscript can be related to rondelius technique, as suggested by Harrison (Music in Medieval Britain, pp. 239 f.).

[^8]:    ${ }^{37}$ Buxofzer, "Sumer Is Icumen In," p. 101 and n. 16.
    ${ }^{38}$ In view of the theoretical evidence the use of the term "motet" for any composition other than one based on a traditional responsorial chant melisma would seem to be open to question. That a motet is constructed over a cantus prius factus ("precipue ecclesiasticus," as Hieronymus de Moravia puts it; Coussemaker, Scriptorum, vol. 1, p. 89a) is attested to by all thirteenth-century theorists who deal with the subject. Odington, the only English theorist to concern himself with the motet, seems more liberal in his definition: "For a tenor use some known tune with suitable melodic features . . ." (cf. Coussamaker, Scriptorum, vol. l, p. 248a); but as example he gives the beginning of a double motet with liturgical tenor, a composition preserved, in a number of variants, in a good many Continental manuscripts (cf. Gennrich, Bibliographie, p. 51). In view of this unanimity it would seem that no piece with a freely composed tenor could be called a motet. However, the repertoire contained in groups 4-7 of MS London, B. M., Harley 978, is designated in the manuscript as consisting of motets - cf. Friedrich Ludwig, Repertorium (Halle 1910), pp. 274 ff.-even though it seems that the majority of these pieces contained freely composed tenors rather than cantus firmi; this is indicated not only by the concordances with the WF-cf. Dittmer, An English Discantumm Volumen, in: MD VIII (1954), pp. 42 f.-but by Ludwig's observation (Repertorium, p. 274) that the tenors were not considered as texted voices. Thus, the current custom of calling such compositions motets, though an extension of its original Continental meaning, is quite legitimate.

    * As to the two Oxford manuscripts, see Dirtmer, Beiträge zum Studium der Worcester-Fragmente, in: MF X (1957), pp. 33 ff. The composition in MS Cambridge, Gonville \& Caius College 810/820 (Fragment 1), listed and discussed as a motet by Apfel (Studien, vol. I, pp. 17 and 51), is a conductus.
    * ${ }^{40}$ All the compositions listed so far are discussed in detail in chapter II B of the author's dissertation.

[^9]:    ${ }^{11}$ See the list in Aprel, Studien, vol. I, pp. 29-30; it cites only motets.
    ${ }^{42}$ Since this is a St--Catherine motet, it is tempting to single out certain melodic affinities between the tenor and the antiphon Maxencius (beginning; Antiphonale Sarisburiense, pl. X) and the responsory Virgo flagellatur (beginning and end of the respond and beginning of the verse; cf. n. 15 above). However, to assume the tenor to be an essential conflation of these chants would be idle speculation, especially as fortuitously it turns out that notes $7-17$ of the tenor of Fauvel motet No. 4 (Ruina) agree almost exactly with the ouvert phrase of the Gonville \& Caius motet.
    ${ }^{43}$ The length of the poetic lines is variable in accordance with the rhythmic scheme.

[^10]:    44 The most common intervals between the upper two voices are fourths, thirds, and sixths, all frequently in parallels; a number of unorthodox cadences occur, one of which is quite properly described as involving a note échappée (mm. 7/8 of Ex. 4).

[^11]:    ${ }^{45}$ It may well be proper to interpret pairs of semibreves trochaically (cf. Sanders, Duple Rhythm, n. 134).
    ${ }^{46}$ Apfel's assertion that the piece contains Stimmtausch (Studien, vol. I, p. 51) is unwarranted.
    47 It has been recorded on Expériences Аnоиуmes No. EA - 0024.
    ${ }^{48}$ One of the two concordances of WF No. 67 is in the Gonville \& Caius manuscript, which may well have contained a version of WF No. 53 also. A concordance of the latter exists in MS Cambridge, Pembroke College, 228, which, in turn, contains concordances of two other pieces in the Gonville \& Caius manuscript.
    ${ }^{40} \mathrm{Cf}$. the analysis in Apfel, Studien, vol. I, p. 53. The refrain design of No. 67 is analyzed in this writer's dissertation, p. 208.
    ${ }^{30}$ Apfel-Studien, vol. I, pp. 72 and 97; Zur Entstehung des realen vierstimmigen Satzes in England, in: AMW XVII (1960), p. 93 ; Der klanglidhe Satz und der freie Diskantsatz im 15. Jahrhundert, in: AMW XII (1955), p. 302, n. 4; Die klangliche Struktur der spätwittelalterlichen Musik, in: MF XV (1962), p. 213-construes the term "cautus prius factus" as that voice of a composition which was composed first. This unusual definition is contradicted by medieval - as well as general present-day usage (cf. Heinrich Husmann, Cantus firmus, in: MGG 2, cols. 785 f.), according to which the term is synonymous with cantus firmus. Cf. n. 38 above.
    ${ }^{51}$ Melismas also appear in the upper voices of a good many motets on freely composed tenors, even in those without Stimmtausch (WF Nos. 6, 10, 73-75; MS Oxford, B. L., Corpus Christi College, 497, No. 9), so that here, too, the appropriateness of the term "motet" might be called in question. Cf. n. 38 above.
    ${ }_{52}$ It has recently been demonstrated-e.g. Handschin, Trope Sequence, and Conductus, in: New Oxford History of Music, vol. 1I, p. 128; Paul Evans, in: Some Reflections on the Origin of the Trope, in: JAMS XIV (1961), p. 121-that Léon Gautier's definition of trope as the addition of text to a chant melisma is inconsonant with medieval usage. A chant melisma equipped with a new text was referred to as prosula, except in the case of the sequence, where the result was known as prosa. However, the validity of Evans's definitions is not without exceptions; not all prosae are texted Alleluia sequences-cf. CRocker, The Repertory of Proses at Saint Martial, in: JAMS XI (1958), pp. 156 and 158 f.; Husmann, Sequeuz uиd Prosa, in: AииM Il (1954), pp. 67 f.; Harrison, Music í Medieval Britain, pp. 67 f . - nor are all prosae textual decompositions of pre-existing melismas (Husmann, loc. cit.; Harrison, op. cit., p. 69). Handschin (op. cit., p. 165), like Evans, in effect corrects medieval terminology by calling the prosae for responsories responsory tropes. "Tropus" was used by medieval clerics and musicians to describe a monophonic expansion of certain chants

[^12]:    of the mass by means of addition and / or interpolation of music with text, not necessarily in syllabic style. (In fairness to Gautier it should be pointed out that, while the definition cited by Handschin appears on the first page of his book (Gautier, Histoite de la Poésie Liturgique au Moyen Age. Les Tropes, Paris 1886), he writes on p. 53 that "d nоs yeux, tropus est et demeиre, méme en liturgie, un terme primitivement mиsical ..." and then proceeds to buttress this definition with a considerable amount of documentary evidence.) It has long been recognized that the medieval practice of setting a cantus firmus polyphonically, whether with or without new text, is closely related to troping, since "polyphony did by superposition what the tropes did by interposition"-Handschin, The Two Winchester Tropers, in: Journal of Theological Studies XXXVII (1936), p. 36. It is thus appropriate to refer to the texts of the upper parts of the English compositions in question as tropic to the chant. ${ }^{53}$ Aprel, Studien, vol. I, pp. 33 f.
    ${ }^{54}$ Dittmer's terminology seems to account for Apfel's misleading and useless comparison of "English" organa with Notre-Dame organa in his Uber einige Zusammenhänge zwischen Text und Musik im Mittelalter, besonders in England, in: AM XXXIII (1961), p. 48; they are at least half a century older. ${ }^{65}$ Letters refer to compositions preserved, in more or less fragmentary form, in MS Oxford, B.L., Rawlinson с $400^{*}$; cf. Dittmer, An English Discaиtum Volumen. WF Nos. 43, 44, 47, 48, 64, 78-80, 83-86, 96, and 108 (7) are cantus-firmus compositions with different and evidently later stylistic traits.
    ${ }^{66}$ Not a sequence, as Dittmer (The Worcester Fragments, pp. 29 and 41) and Apfel (Studien, vol. I, p. 35) put it; cf. Harrison, Music in Medieval Britain, p. 70.
    ${ }^{51}$ As a rule, in the settings of responsorial chants only the solo portions are utilized; thus, Apfel's assertion that "the so-called English tropic motets . . . are based on an entire chant . . ." (Ober einige Zusammenhänge, pp. 48 f.) is too sweeping.

[^13]:    ${ }^{68}$ Handschin, Zur Frage der melodischen Paraphrasierung im Mittelalter, in: ZMW X (1928), p. 519.
    ${ }^{50}$ Except during the invocations in the beginning, the $b$ is consistently flatted in the tenor (Sanctus Sarum No. 5); the same applies to the extant portion of the tenor of the Sanctus setting WF No. 58 (Sarum No. 2).
    ${ }^{\infty}$ Dittmer's observation regarding No. 51 that "the melody of the pes is the same as in our Gregorian source up to m .57 "' (The Worcester Fragments, p. 43) indicates that he consulted an inapplicable source, since the identical versions of the solo portion of the verse in both the Salisbury (Gr. Sar., pl. 225) and the St. Yrieix (pl. 193) Graduals differ from that in the current Vatican books, but agree with the tenor of the Worcester composition (except for the added melisma).
    ${ }^{61}$ Barely half a dozen of all the Worcester compositions do not end with such a cadence.
    or See below. The tonal significance of this manipulation did not escape Handschin (The Summer Санои, in: MD V [1951], p. 68), who was unfamiliar with the other instances.
    ${ }^{63}$ Ludwig, Repertorium, p. 272.
    ${ }^{4}$ The Deuterus is rare in continental polyphony, too; in the Montpellier manuscript there are only two examples, viz. 5,177 , which begins and ends on $e$, since its tenor is the neuma of that mode, and 7,262 , which ends on $e$.
    as Apart from WF No. 42 and the somewhat later No. 96, this is the only extant setting of an Office chant and the only piece in the Rawlinson manuscript to set a chant other than an Alleluia. 16 measures are erroneously omitted in Dittmer's reconstruction between mm. 42 and 43 ( $\mathrm{cf} . \mathrm{mm}$. 145-160). Apfel's comment (Zur Entstehung, p. 98) that at the beginning of Verse and Gloria the tenor has no modal patterns is an error. It is interesting that where the two versions of the chant source in Ant. Sar. (pl. 48) and Ant. Wig. (p. 31) diverge, the cantus firmus invariably agrees with the Sarum rather than the Worcester version. (On the other hand, the converse of this situation applies in the case of WF No. 42.)

[^14]:    ${ }^{\text {bs }}$ For the contents of this manuseript see Apfel, Studien, vol. 1, p. 25.
    ${ }^{87}$ A somewhat later example of tonally motivated alteration of a cantus firmus is furnished by WF No. 96. Much later is the occurrence of the same practice in No. 59 of the Old Hall manuscript, one of the Credo settings contained in the oldest layer of that source.
    ${ }^{68}$ See Gr. Sar., pl. u, and the pertinent Notre-Dame compositions.
    ${ }^{80}$ Dittmer has suggested that of the Perotinian setting of the Alleluia: Nativitas only the motet (or clausula) was known in England (The Worcester Fragments, p. 59). But it seems at least equally possible that for one or more reasons of |style - modal rhythm, tonality - the English composer decided to recompose everything but the clausula, which he quoted in a manner reminiscent of Alban Berg's quotation of the beginning of Wagner's Prelude to Tristan und Isolde in his Lyric Suite. The case of WF No. 81 has, ever since Aubry's discussion of it in Cent motets du XIIIe siècle (Paris 1908), vol, III, p. 15, n. 2, been taken as proof of the manner in which motets came into being at Notre-Dame. However, this seems a hasty conclusion, since (1) this is an English composition, and no comparable pieces are preserved in Continental manuscripts, (2) independent clausulae, which demonstrably are the progenitors of many French motets of the time, already exist in the earliest Notre-Dame sources, and (3) the numerous later Alleluia settings with textually troped upper parts preserved in the WF prove No. 81 to be the earliest extant example of a thirteenth-century English practice. The Continental motet, on the other hand, being a polyphonic setting of a chant melisma, had from its inception a less organic connection with the liturgy. It is unclear why the Continental custom of making clausulae into motets should be considered a "detour" (Apfel, Studien, vol. I, p. 37; the passage is restated in nearly identical terms in Über einige Zusammenhänge, p. 52) in comparison with English practice; the end results are as different as the premises. Moreover, the English Alleluia settings are products of a later stylistic orientation than the Notre-Dame organa, so that those two types are likewise not comparable (cf. n. 54 above); only WF No. 81 truly reflects the Perotinian style and therefore proves, contrary to Apfel's assertion, that the organal style was indeed likely to have been cultivated in England in the first half of the thirteenth century. It seems difficult to comprehend how the case of No. 81 would have compelled Handschin to deduce that it indicates Worcester to have been "tributary to Notre Dame"; cf. his The Summer Canon, in: MD V (1951), p. 69.
    ${ }^{70}$ They were first discussed and analyzed by Dittmer in An English Discantuиm Volumen, especially pp. 29-34; cf. also his Beiträge, p. 29. For further details see this writer's dissertation, pp. 141-157.

[^15]:    ${ }^{71}$ However, they should also be considered as late manifestations of the introductory function originally held by tropes; see Evans, op. cit., pp. 129 f ., who considers the art of troping dead by the middle of the eleventh century. - That in Italy, too, it was still very much alive in the thirteenth century was pointed out a few years ago by Gluseppe Vecchi in his Tra Monodia e Polifonia, in: Collectaneae Historiae Musicae, vol. II (Historiae Musicae Cultores, vol. VI, 1957), p. 448.

[^16]:    ${ }^{1}$ Manfred Bukofzer, "English Church Music of the Fifteenth Century", in New Oxford History of Music, Dom A. Hughes and Gerald Abraham, eds., Vol. III (1960), p. 166.
    ${ }^{2}$ The Worcester compositions are referred to in accordance with Dittmer's edition: The Worcester Fragments, Luther A. Dittmer, ed., American Institute of Musicology, Musicological Studies and Documents, vol. II, 1957. WF is used as siglum for Worcester Fragments. Since Dittmer's edition distorts WF No. 91, a transcription is appended.
    ${ }^{3}$ Ernst Apfel, taking note of Dittmer's designation of the source of the lowest voice of WF No. 107 as "unidentified" (Dittmer, The Worcester Fragments, p.56), has concluded that this conductus proves the necessity of the assumption that conducti may contain cantus firmi (Studien zur Satztechnik der mittelalterlichen englischen Musik (Heidelberg, 1959), vol. I, p. 57). It has, of course, been known for some years that such an assumption is justified (cf. e.g. Bukofzer, "Interrelations between Conductus and Clausula", Annales Musicologiques I (1953)), but WF No. 107 can hardly be cited as proof, since it is so fragmentary as to be completely useless as evidence and since Dittmer's designation is obviously an inadvertence.

    4 Dittmer's editorial habit of omitting the signature of b-flat, whenever it appears in a manuscript, and instead placing flats before the appropriate b's in the score leads to absurd results in WF No. 109. In m. 48, where obviously musica ficta in the form of a b-natural must be applied, he combines a b-flat in one voice with an f-sharp in another.

[^17]:    ${ }^{5}$ As to MS Corpus Christi Coll. 497, see Dittmer, "Beiträge zum Studium der Worcester-Fragmente", Die Musikforschung X (1957), pp. 35ff; for the contents of the other Corpus Christi Coll. manuscript see Hughes, Medieval Polyphony in the Bodleian Library (Oxford, 1951). Both manuscripts are stylistically related to the WF. Regarding MS Mus. c. 60, see Dittmer, "Beiträge...", pp. 33f (the rhythm of the piece printed by him should be trochaic, not binary); it contains concordances with the WF. MS Bodley 257 "hails from Reading" (New Oxford History, vol. II, p. 341); its contents were inaccurately described by Hughes (Medieval Polyphony...); for a corrected listing see Ernest H. Sanders, "Medieval English Polyphony and Its Significance for the Continent", Columbia University Dissertation (1963), pp. 433f.
    ${ }^{6}$ Salve virgo virginum; facsimile in Early English Harmony, H. E. Wooldridge, ed., vol. I (London 1897), pl. 36.
    ${ }^{7}$ A fragmentary composition preserved in MS Cambridge, Gonville \& Caius Coll. 810/820 and erroneously labeled by Apfel as a motet (Studien..., vol. I, p. 51) is quite similar to $W F$ No. 91 .
    ${ }^{8}$ See Sanders, "Tonal Aspects of 13th-Century English Polyphony", Acta Musicologica XXXVII (1965), p. 22.
    ${ }^{\text {a }}$ C $\dagger$. Bukofzer, "The Gymel . . .", Music and Letters XVI (1935), pp. 79-80; idem, "Popular Polyphony in the Middle Ages", The Musical Quarterly XXVI (1940), pp. 36-37; idem, "Popular and Secular Music in England", in New Oxford History, vol. III, pp. 110-111.
    ${ }^{10} C f$. Jacques Handschin, "Eine wenig beachtete Stilrichtung. ..", Schweizerisches Jahrbuch für Musikwissenschaft I (1924), p. 58, n. 4. WF No. 45 is a different Marian adaptation of the same Gregorian Alleluia. Since the cantus firmus is not used in $W F$ No. 100, the piece belongs to a group of conducti with liturgical texts preserved in certain Notre-Dame sources (cf. e.g. Eduard Gröninger, Repertoire-Untersuchungen zum mehrstimmigen Notre-Dame Conductus, in Kölner Beiträge zur Musikforschung, vol. II (Regensburg, 1939), pp. 146 and 148). Dittmer's designation of the composition as an Alleluia is therefore in error.

[^18]:    ${ }^{11}$ Sylvia Kenney's argument that duets composed according to the rules of discant were particularly characteristic of English music until the early fifteenth century ("'English Discant' and Discant in England", The Musical Quarterly XLV (1959), pp. 45-48) is weakened not only by the rarity of duets in fourteenth-century English sources, but particularly by the fact that they are not discants, but free compositions; cf. p. 31 below.
    ${ }^{12}$ Geschichte der Musiktheorie .. (Berlin, 1898 and 1918), p. 154.
    13 "The Gymel...", p. 78; "The First Motet with English Words", Music and Letters XVII (1936), p. 231; Geschichte des englischen Diskants (Strassburg, 1936), p. 113; "Gymel", Musik in Geschichte und Gegenwart III, cols. 1143f; Studies in Mediaeval and Renaissance Music (New York, 1950), p. 49.

    14 "The Gymel ...", p. 78; "The First Motet . . "', p. 231; "John Dunstable and the Music of His Time", Proceedings of the Royal Musical Association LXV (1938), p. 25.
    ${ }^{15}$ Studies..., p. 188.
    ${ }^{18}$ "Gymel", $M G G$ III, col. 1144.
    ${ }^{17}$ That the designation of chant settings with the cantus firmus in the middle voice as "gymels" with subsequently added top voice (Bukofzer, "The Gymel ...", pp. 82-84; idem, Studies..., p. 49) is also arbitrary and incorrect has already been pointed out by two writers (Frank Ll. Harrison, Music in Medieval Britain (London, 1958), p. 155; Günther Schmidt, "Zur Frage des Cantus firmus ...", Archiv für Musikwissenschaft XV (1958), pp. 241f). Such English compositions from the fourteenth and early fifteenth centuries exhibit no special gymel features, nor is there any convincing indication that they consist of two essential voices, onto which a top voice was grafted subsequently.

[^19]:    ${ }^{18}$ Cf. Thrasybulos Georgiades, Englische Diskanttraktate (München, 1937), pp. 81f, 62f, and 99 . The difference becomes readily apparent in a comparison of the relatively conservative Stimmtausch sections of the Worcester Alleluia settings (cf. Sanders, "Tonal Aspects...," pp. 33 f) with the more advanced Stimmtausch motets, such as $W F$ Nos. 16, 41, and MS Princeton, Garrett 119, Fragment A, No. 2 (cf. ibid., n. 25), or of the older conducti (e.g. WF No. 69) with WF Nos. 87-92; Nos. 89, 90, and 92 are the last Worcester conducti with Stimmtausch. (Contrary to Dittmer's indications - The Worcester Fragments, pp. 57f - WF No. 87 contains no Stimmtausch; neither do Nos. 96, 108, and 109.) Significantly, the rondellus disappeared as a species of composition, as soon as the octave barrier of the two-voice framework was breached decisively.
    ${ }^{19}$ Handschin pointed out long ago that the origin of the intrusion of imperfect consonances into polyphony undoubtedly lies in the aesthetic need for tension before the confluence of the voices into the final unison (or fifth) in early two-part counterpoint (cf. also Günther Schmidt, "Strukturprobleme der Mehrstimmigkeit. ..", Die Musikforschung XV (1962), p. 22). He hypothesized very plausibly that the third with its "bitter-sweet suspension of the ending ... might gradually have come to be endowed with the quality of sweetness" ("Der Organum-Traktat von Montpellier", in Studien zur Musikgeschichte: Festschrift für Guido Adler (Wien, 1930), p.55). (Judith Marshall ("Hidden Polyphony ...", Journal of the American Musicological Society XV (1962), p. 136) has called attention to deliberate prolongation of the third-to-unison cadences in a St.-Martial composition, which "very likely illustrates a certain fascination on the part of the composer with the harmonic effect of repeated thirds".) This is, at any rate, the fate that befell the sixth, which, though "a vile and disgusting dissonance" according to Anonymous IV (Scriptorum de Musica Medii Aevi..., Charles E. H. Coussemaker, ed., vol. I, p. 359a), was recognized by him as "optima concordantia" before a final consonance; "ante concordantiam bene concordat", says Franco (ibid., p. 130a). In the fourteenth century it came more and more to be treated, like the third, as an imperfect consonance (Claude V. Palisca, "Kontrapunkt", MGG VII, col. 1530).
    ${ }^{20}$ Cf. Sanders, "Tonal Aspects . . . ."" passim.

    * $\quad{ }^{21}$ MS Leeds Central Library, Archives Dept., VR 6120 - olim Fountains Abbey

[^20]:    ${ }^{24}$ Besseler's statement that the "occasional series of sixth chords" in older English sources "are merely an accidental similarity" to the style of fauxbourdon (Bourdon und Fauxbourdon (Leipzig, 1950), p. 107; similarly, p. 195) can be explained only in the light of his desire to credit Dufay with the invention of a strictly parallel style. That fauxbourdon is more rigid than the style of the English pieces in question is as undeniable as is their evident relationship.

[^21]:    ${ }^{25}$ This incontrovertible fact was already mentioned, en passant and in a curiously casual manner, by Apfel (Studien..., vol. I, p. 33). Parallel fifths between the two lower voices necessarily occur between two ${ }_{5}^{10}$ 's or between a ${ }_{5}^{10}$ and a ${ }_{5}^{8}$ or $\frac{12}{5}$, and were evidently not considered contrapuntally objectionable, despite the unanimity of fourteenth-century theorists (including the English author(s) of the Quatuor Principalia - cf. Coussemaker, Scriptorum...., vol IV, p. 281a; conceming this passage see also Georgiades, Englische Diskanttraktate..., pp. 86f) in forbidding such parallelism. Apparently, the goal of aural pleasure achieved through a judiciously restricted variety of euphonious chords was more important than contrapuntal propriety. Analogously, rhythmic factors of increasing complexity often prevail over considerations of proper dissonance treatment in fourteenth-century French music (cf. Gilbert Reaney, "Fourteenth-Century Harmony ...", Musica Disciplina VII (1953), pp. 129 and 140f).
    ${ }^{26}$ Apfel also feels that the top voice of such compositions is generally "the most important" (Studien..., vol. I, p. 78).
    ${ }^{27}$ Cf. Catherine Miller, "The Early English Carol", Renaissance News III (1950), pp. 63-64, and Harrison, Music in Medieval Britain, pp. 416-418.

    28 "Les Études sur le XVe siècle musical...", Revue Belge de musicologie I (1946-47), pp. 95f.
    ${ }^{29}$ E.g. Besseler, Bourdon und Fauxbourdon, p. 15, n. 1.
    ${ }^{30}$ In that respect, even $W F$ No. 91 already seems rather tenuously related to the conductus tradition; cf. Hughes, "Music in Fixed Rhythm", in New Oxford History, vol. II, p. 351.
    ${ }^{31}$ Handschin, Musikgeschichte im Uberblick (Luzern, 1948), p. 213. Bukofzer offered no proof for his contention that to a large extent the carols are "'Tenorlieder'" (Geschichte des englischen Diskants, p. 117).
    ${ }^{32}$ Handschin, "Les Etudes . . .", p. 95; Besseler, Bourdon und Fauxbourdon, p. 30.

[^22]:    ${ }^{42}$ Hughes had already pointed out (Worcester Mediaeval Harmony (Burnham, 1928), p. 37) that there is a degree of stylistic relationship between WF No. 88 and the Gloria in the Sloane manuscript. Apfel (Studien..., vol. I, p. 57) erroneously assigns the Worcester Gloria to the earliest layer of the WF; the considerable amount of parallel ${ }_{3}^{6}$ 's and ${ }_{5}^{10}$ 's as well as the expanded two-voice framework (twelfth) leave no doubt that the piece cannot have been composed before the late thirteenth century.
    ${ }^{43}$ The first being the location of the main melody in the top voice (cf. p. 13 above).
    ${ }^{44}$ Cf. Apfel, Studien ..., vol. I, pp. 59-60.
    ${ }^{45}$ Cf. John Stevens, "Carol", Grove's Dictionary (London, 1954), II, pp. 78b and 82a f. Both style and form make the "hymn" Nobilis humilis the earliest known antecedent in England.
    ${ }^{48}$ That the English language was not common in English polyphonic music is also elucidated by the end of one of the two texts of Old Hall No. 137, which specifically states that the French text of the original was changed to Latin, since the English preferred it.

[^23]:    ${ }^{53}$ The only comparable technique is represented by the three-voiced rondeaux of Adam de la Halle, which are notated in score; the pre-existing tunes that at least some of them seem to set appear in the middle voice (Adam de la Halle, Le Jeu de Robin et de Marion, ed. Friedrich Gennrich, in Musikwissenschaftliche Studien-Bibliothek, vol. XX, p. 41).
    ${ }^{34}$ Facsimile in Luther A. Dittmer, ed., Oxford, Latin Liturgical D 20; ... (Institute of Mediaeval Music, Publications of Mediaeval Musical Manuscripts, No. 6, Brooklyn, 1960).
    ${ }^{65}$ Another likely case of a late manifestation of organal style is WF No. 26, where the missing tenor of the respond portion may well have begun with an $f$ pedal lasting fifteen longae.
    ${ }^{50}$ As regards the rhythm (mos lascivus - cf. Sanders, "Duple Rhythm and Alternate Third Mode in the 13th Century", Journal of the American Musicological Society XV (1962), pp. 255f), cf. No. 8, 328 of the Montpellier manuscript, which is surely later than the date suggested by Roksth (Polyphonies du XIIIe siècle", vol. IV (Paris 1939), p. 140.
    ${ }^{57}$ Dittmer, "An English Discantuum Volumen", Musica Disciplina IX (1955), pp. 38f. He became abbot of Reading Abbey in 1268.
    ${ }^{58}$ Cf. Handschin, "The Summer Canon and Its Background", Musica Disciplina III (1949), p. 91.
    ${ }^{\text {b }}$ Cf. Apfel, "Zur Entstehung des realen vierstimmigen Satzes in England", Archiv für Musikwissenschaft XVII (1960), pp. 87f. It goes without saying that it sounds unlike any of the Old Hall compositions. (Apart from its other stylistic features, it contains a Stimmtausch passage.)
    ${ }^{60}$ It is possible to deduce from the final section how such hockets were composed. Only the first three and the last seven notes of the tenor (second lowest voice) quote the cantus firmus. The remainder is a free hocket paraphrase, of which the tenor was laid out first, since it is the only voice to have a regular rhythmic pattern. The lowest voice was added next, since in these two parts the rests never coincide. The top voice was composed last; not only does it form several octave parallels with the bottom voice, but in the preceding section it is superimposed on the two middle voices with their Stimmtausch passage. The concluding section represents the only known fourpart hocket.

[^24]:    ${ }^{62}$ The cantus firmus is listed as unidentified by Dittmer (The Worcester Fragments, p. 29).
    ${ }^{\text {es }}$ The frequency of the interval of the fourth between Tenor and Triplum allows no other conclusion. Of course, the necessity of having voices other than the Tenor supply the lowest notes in a motet or clausula when the cantus firmus lies exceptionally high (e.g. Mors) was already plain to the Perotinian generation. While the fundament of the medieval motet is the Tenor, it does not follow, as Apfel ("Satztechnische Grundlagen der Neuen Musik des 17. Jahrhunderts", Acta Musicologica XXXIV (1962), p. 68) suggests, that it is by definition the lowest voice throughout and that motets in which a voice crosses below the Tenor are rather exceptional and reflect an early step in the evolution from the cantus firmus as fundament to the emancipation of the bass. On the contrary, such voice crossings are generally necessitated by the range of the cantus firmus; therefore, they abound not only in four-voiced English compositions, but also in the sixth fascicle of the Montpellier manuscript, which

[^25]:    ${ }^{79}$ Published by Bukofzer in "The Gymel ...", p. 83, where he sought to force this piece into the so-called gymel tradition.
    ${ }^{80}$ Some of the many Sanctus settings of the fourteenth century compose the word "Benedictus"; others, in contrast to the extant French Sanctus compositions of the time, do not set it polyphonically. Since most of the former are quite archaic, there is a possibility that these circumstances reflect the gradual beginnings of the practice according to which the Canon was no longer preceded by the Sanctus in its entirety (cf. Peter Wagner, Einführung in die Gregorianischen Melodien, vol. I (Leipzig, 1910), pp. 114f, and vol. III (Leipzig, 1921), pp. 455f).
    ${ }^{81}$ It seems particularly illuminative of liturgical practices that the beginning of this setting is written immediately under the end of a freely composed Gloria (cf. p. 18 above), and by the same hand (see the facsimile in Apfel, Studien ..., vol. II, p. 14); only one (Old Hall No.4) of the many fourteenth-century English Gloria settings is based on a cantus firmus. (On the other hand, of the numerous polyphonic Sanctus and Agnus compositions only three (Old Hall Nos. 90, 98, and 125) are freely composed.)

[^26]:    88 With the exception of Old Hall, LoF, and Arundel 14, all the manuscripts cited so far seem to date from the first half of the fourteenth century (cf. also Sanders, "Duple Rhythm and Alternate Third Mode...", n. 134). As regards the Sloane manuscript, Harrison dates it as "of the second half of the fourteenth century" (Music in Medieval Britain, p. 150) and "about the middle of the century" ("English Church Music...", p.95). But its notation still employs a basically Petronian device mentioned by Odington (cf. Wolf, Handbuch der Notationskunde (Leipzig, 1913), vol. I, p. 269) and generally does not yet reflect the notational stabilization of the Ars Nova. Moreover, it is linked by a concordance with MS Cambridge, Gonville \& Caius Coll. 512/543 (cf. Apfel, Studien..., vol. I, p. 29, n. 34, and p. 59); the latter, in tum, contains a concordance of WF No. 67, which Harrison dates as ca. 1300 (Music in Medieval Britain, p. 144). That these manuscripts are related was pointed out earlier (p. 22).
    ${ }^{89}$ Apfel, Studien..., vol. I, p. 66.
    ${ }^{90}$ A few exceptions were described by Stevens ("A Recently Discovered English Source...", pp. 34f and 36f); especially No. 7 of the manuscript discussed by him betrays the influence of the cantilena style, in a manner somewhat reminiscent of the motets with cantus firmus in the midde (cf. n. 49 above). - Stevens (pp. 30f) has called attention to the formal organization of the Agnus settings in this manuscript, which more often than not does not coincide with the form of the plain song. (A similar case is $W F$ No. 84, which is in ABA form - more precisely ab cb ab -, while the form of its cantus firmus is a a a.) More interesting are some of the Agnus settings in LoF and Old Hall. LoF No. 11 has the form: Intonation, ab; c; db. The form of Old Hall No. 121a is: Intonation, ab; cb; dab. No. 121c also has three refrain endings, while No. 121b has the form: Intonation, a; ba'; c. In No. 128 the third of the three refrain endings differs rhythmically from the other two, since Agnus III is a variant in tempus perfectum of Agnus I, which is in tempus imperfectum. Lastly, the form of No. 126a is a a a a, where Agnus I and III are in tempus imperfectum and Agnus II in tempus perfectum. The refrain endings, of course, are a reflection of the formal organization prevalent in many a Gregorian Agnus Dei. - The fact that the two appearances of "Hosanna in excelsis" have identical phrases in a great many Gregorian Sanctuses proved to be form-producing in only one Sanctus setting (Old Hall No. 96).

[^27]:    133 "'English Discant'..."; Ernest Trumble ("Authentic and Spurious Faburden", pp.17f, 26, and, especially, p. 19, n. 1) seems to have arrived at conclusions similar to those of Miss Kenney (and Georgiades) without knowledge of her article.
    ${ }^{134}$ Georgiades, Englische Diskanttraktate...
    ${ }^{135}$ Parallelism is not reported or permitted by any theorist, except perhaps Johannes de Garlandia, the younger (Carl Dahlhaus, "Konsonanz - Dissonanz", MGG VII, col. 1506; however, of. p. 40 of Miss Kenney's article regarding the meaning of the crucial term "ad libitum"). Anonymus V, who has been said to mention "English discant" (Heinrich Hüschen, "Anonymi", MGG I, col. 495), merely makes the cryptic remark that "totus generalis modus cantandi [sc. discantandi] consistat aut in octavo aut in sexto" (Coussemaker, Scriptorum ..., vol. I, p. 366b).
    ${ }^{138}$ Georgiades, Englische Diskantitraktate..., pp. 34f. Trowell errs in asserting that Georgiades's view of English discant coincided with that of Bukofzer ("Faburden and Fauxbourdon", p. 43). - Miss Kenney, in addition to refuting the parallelism attributed to English discant, has also averred that there is no proof that any of the English theorists discussed discant for more than two voices (op. cit., pp. 37-39), though she passes over Georgiades's contrary opinion (op. cit., p. 57). Apfel, whose concept of "klanglicher Satz" ("Der klangliche Satz...", pp. 302f), alias "mehrfachzweistimmiger Satz" (Studien ..., vol. I, p. 104; cf. also Apfel, "Zur Entstehung...", p. 83), rests on Georgiades's interpretation of the English theorists (Apfel, "Der Diskant in der Musiktheorie...", Heidelberg University Dissertation (1953), p. 146), acknowledged that Miss Kenney had reduced Bukofzer's "English discant" ad absurdum (Studien..., vol. I, p. 85), even though elsewhere he considered Bukofzer's "English discant" "gewissermassen identisch" with the "klangliche Diskantsatz" ("Der klangliche Satz...", p. 303, n. 1). While he nowhere makes parallelism an explicit condition of the klangliche Satz, he repeatedly relates it to a putative earliex "Verdoppelungspraxis" (e.g. ibid.), a term and concept originated by von Ficker and taken over by Georgiades. However, Apfel not only gives no examples of the klangliche Satz prior to the fifteenth century, but forgoes identifying any English composition of that time with any of his bewilderingly numerous (cf. "Der klangliche Satz...", pp. 306309) categories. Even in the fifteenth century, he says, there are few "reine klangliche Sätze" (ibid., p. 307), adding that this type of discant was "mostly only improvised; it

[^28]:    ${ }^{7}$ A rhetorical term meaning "small portion, brief clause, short section". As to the various meanings of "Clausula" in grammar, rhetoric, and poetry, see Waite, op. cit., pp. 149-150.
    ${ }^{8}$ H. Husmann (Perotinus, in: MGG X, col. 1079) and H. Tischler (New Historical Aspects of the Parisian Organa, in: Speculum XXV, 1950, p. 26) both consider the truth of this assumption selfevident.
    ${ }^{9}$ The Congaudeant catholici in the Codex Calixtinus is surely not for three voices; cf. B. Stäblein, Modale Rhythmen im Saint-Martial-Repertoire?, in: Festschrift Friedrich Blume, Kassel etc. 1963, p. 359.
    ${ }^{10}$ The use of the term is here restricted to those pieces that, unlike the 155 abreviations, are shaped * and independent works.

[^29]:    ${ }^{28}$ Cf. Sanders, Duple Rhythm, pp. 278-279.
    ${ }^{20}$ No. 3 in Westminster Abbey 33327.
    ${ }^{30} B a$ No. 66.
    ${ }^{31}$ Ludwig unhesitatingly considered Perotinus the composer of the Clarusula Mors; see G. Adler (ed.), Handbuch der Musikgeschichte, Berlin 1930, I, p. 233.
    32 Tischler, op. cit., p. 24.
    ${ }^{33}$ Tischler himself thinks that the time of composition of Mors was only "slightly more recent" than that of the Quadrupla (p. 24) and "that all these pieces were composed within close temporal proximity of each other" (p. 27).
    ${ }^{34}$ Ludwig, who referred to the Clausulae in the 5th and 6th fascicles of $W_{1}$ as Perotinian (Repertorium, p. 23), did not hesitate to credit Perotinus with the invention of many of the more complicated tenor patterns that appear in the Clausula fascicle of $F$ (ibid., p. 85).
    ${ }^{35}$ Two Sanctus tropes - Perpetuo numine and Quem pium (fol. 92 [83]v) - and the Agnus trope Lux lucis (fol. 94 [85]).
    ${ }^{36} W_{1}$ fol. 103 [94]v; $F$, fol. 86v; $W_{2}$, fol. 90.
    ${ }^{37}$ See Ludwig, Repertorium, p. 112.

[^30]:    48 Repertorium, p. 145.
    ${ }^{4}$ Sanders, Duple Rhythm, n. 150.
    ${ }^{50}$ Tischler, The Dates of Perotin, in: Journal of the American Musicological Society XVI, 1963
    p. 241; see also his New Historical Aspects, pp. 28-30.
    ${ }^{51}$ Tischler, New Historical Aspects . . . p. 29.
    ${ }^{52} \mathrm{M}$. Wilmotte, Un curieux cas de plagiat littéraire . . . in: Académie Royale de Belgique, Bulletin de la Classe des Lettres . . ., 5 e série, vol. XIV, 1928, pp. 269-309; R. Lejeune-Dehousse, L'Oeuvre de Jean Renart, in: Bibliothèque de la Faculté de Philosophie et Lettres de l'Université de Liége, Fascicule LXI, 1935, Pp. 24-34; E. Hoepffner, Renart ou Renaut?, in: Romania LXII, 1936, pp. 196-231; H. F. Williams, The Chronology of Jehan Renart's Works, in: Romance Philology IX, 1955, pp. 222-225.
    ${ }^{\text {ss }}$ That he should have been identical with the Parisian succentor Petrus (see J. Chailley, Histoire Musicale du Moyen Age, Paris 1950, pp. 159 f.) is quite implausible; cf. Birkner, op. cit., pp. 110-112, 120-121.
    ${ }^{54}$ Husmann, Die mittelalterliche Mehrstimmigkeit, Köln, n. d. (Das Musikwerk, vol. IX), p. 8a.

[^31]:    ${ }^{\text {ss }}$ Since this paper was written, another article concerning the dates of Perotinus has appeared (H. Tischler, Perotinus Revisited, in: Aspects of Medieval and Renaissance Music. A Birthday Offering to Gustave Reese, New York 1966, pp. 803-817). I see no need to alter the contents of my contribution to this volume.

[^32]:    ${ }^{1}$ Quoted in Ernst R. Curtius, Europäische Literatur und Lateinisches Mittelalter, Bern 1948, 496.
    ${ }^{2}$ Quoted in Jacques Handschin, «Aus der alten Musiktheorie», AMI XIV (1942), 24/25.
    ${ }^{8}$ Cf. Bruno Stäblein, «Saint-Martial», MGG XI (1963), 1268.

    * Note: When this article was originally printed, a number of errors occured during the process of publication (p.504, p. 505, p. 513 and p. 529). Readers should now refer to the Corrigenda on the last page of this chapter (p. 573) where these errors are now corrected.

[^33]:    ${ }^{8}$ Discartus Positio Vulgaris, CS I, 95a; Cserba, op. cit., 190.

[^34]:    ${ }^{9}$ E.g. Ex. 6 above; also see «ve» in Alleluya Dies sanctificatus (William G. Waite, The Rhythm of Twelfth-Century-Polyphony, New Haven 1954, page 78 of the transcriptions [ Yale Studies in the History of Music II]); «au» in the verse of the gradual Timete (ib., page 212 of the transcriptions).

    10 This assumption evidently guided Waite in his transcription of the $W_{1}$ version of the Magnus Liber.
    ${ }^{11}$ Both quadrupla and some of the tripla (e.g. Descendit) contain discant passages in which the phrases of one or two of the upper voices overlap tenor divisiones with even as well as uneven numbers of notes. This circumstance certainly is a strong argument against the indiscriminate «squaring» of all tenor groups. Cf. Rudolf v. Ficker, «Probleme der modalen Notation», AMl XVIII/XIX (1946/1947), 13.

    12 Anonymus IV, De mensuris et discantu, CS I, 342a.
    13 They are here referred to according to the numeration given by Friedrich Ludwig in his Repertorium, Halle 1910. F No. 289 turns up as an abbreviation in the $F$ version of the Magnus Liber; Nos. 350, 351, and more than half of No. 323 serve as abbreviations in both $F$ and $W_{\mathbf{g}}$. No. 387, though not incorporated in any of the three manuscripts, was clearly intended as an abbreviation, since like several others it provides a link with the appropriate passage in the organum by duplicating a few of its notes. No. 365 does not appear in the $F$ version of the Magrus Liber, but more than half of it still appears in $W_{2}$, the other half agreeing with the more progressive version in $F$. ( $W_{2}$ sometimes occupies an intermediate position between $W_{1}$ and $F$.) Several such comparisons (e.g. No. 330) confirm that there were at least two stages in the process of abbreviation. Practically all of these little segments fit the passages with which they are supposed to link up; all of them are still premodally trochaic. That these snippets are examples of the shortening of the Magnus Liber is finally made abundantly clear by the fact that many of them fit the beginnings of organa or of major subdivisions of organa in such a way as to omit the first tenor note, for which it was desired to retain organal elaboration.

    14 There are roughly twice as many abbreviation substitutes that arrange the tenor in double longs as there are with simple longs. Chains of duplices longae are very rare in the

[^35]:    17 A rhetorical term meaning «small portion, brief clause, short section \%. As to the various meanings of «clausula» in grammar, rhetoric, and poetry, see W. Waite, «The Abbreviation of the Magnus Liber », JAMS XIV (1961), 149/150.
    ${ }^{16}$ Given the evolutionary circumstances, present-day terminology ought not to be any less precise than it seems to have been in Perotinus's day. Since Anonymus IV reports that

[^36]:    ${ }^{20}$ Cf. E. Sanders, «The Question of Perotin's Guvre and Dates», Fs. Walter Wiora, Kassel etc. 1967, 246.
    ${ }^{21}$ Ernst Apfel errs with his statement that it is a three-voiced composition except in $W_{1}$ (Beiträge zu einer Geschichte der Satztechnik I, München 1964, 16).
    ${ }^{22}$ Sanders, «Perotin's CEurre and Dates», 243 s. Very probably the two-voiced conductus com caudis was the proving ground for composition for three voices - cf. infra, 522.
    ${ }^{23}$ Cf. infra, 521 ss.
    ${ }^{24}$ Future research would have to ascertain whether distinctive criteria can be established with respect to these two functions. The following statistics may or may not be significant: $W_{1}$ preserves 102 clausulae; 38 of these reappear in the $F$ version of the Magnus Liber, but only 14 of the 38 also turn up as motets; those 14 are less than half of the $W_{1}$ clausulae that also exist as motets. 12 F clausulae were incorporated into the $W_{2}$ version of the Magnus Liber, but only three of them also became motets. Practically all of those for which no motets are known have patterned tenors. Cf. Ludwig, Repertorium, 30-33, 86-95.

[^37]:    ${ }^{20}$ F. Ludwig, «Die geistliche, nichtliturgische, weltliche einstimmige und die mehrstimmige Musik des Mittelalters bis zum Anfang des 15. Jahrhunderts», Handbuch der Musikgeschichte, ed. Guido Adler, Berlin 1930, 246.
    ${ }^{31}$ «La polyphonie parisienne du treizième siècle», Les Cahiers techniques de l'art I. 2 (1947), 44 b.
    ${ }^{32}$ Cf. infra, 523.
    ${ }^{33}$ Les polyphonies du XIIIe sidele IV, Paris 1939, 70 s n. 3.
    ${ }^{36}$ Ludwig's numeration; cf. Friedrich Gennrich, Bibliographie der ältesten französischen und lateinischen Motetten, Darmstadt 1957 (Summa Musicae Medii Aevi II).
    ${ }^{36}$ Ludwig, Repertorium, 148; id., * Die Quellen der Motetten ältesten Stils *, AfMw V (1923), 202.
    ${ }^{36}$ Ludwig, Repertorium, 155.

[^38]:    ${ }^{37}$ Bukofzer, «Discantus», 566.
    ${ }^{38}$ Hans Tischler, "Classicism and Romanticism in Thirteenth-Century Music», RB XVI (1962), 6.
    ${ }^{59}$ Norman E. Smith, «Tenor Repetition in the Notre-Dame Organa *, JAMS XIX (1966), 343-The first to express this view was Waite (Twelfth-Century Polyphony, 100 s).
    ${ }^{40}$ Anonymus IV, De mensuris et discantu, CS I, 342 a.
    ${ }^{41}$ Cf. E. Sanders, "Duple Rhythm and Alternate Third Mode in the $13^{\text {th }}$ Century», JAMS XV (1962), 283.
    ${ }^{42}$ This is explicitly confirmed by a vivid passage in Anonymus IV's treatise ( $D e$ mensuris et discantu, op. cit., 344 a ). Apparently the gradual shift from performance by memorization to performance by reading was a long-term result of the rise of musica mensurata and, consequently, of Franconian notation with its unequivocal graphic fixation of rhythms as well as pitches. The first collections in which the motet voices are so arranged as to make performance from the manuscript possible are $B a, H u$, and the eighth fascicle of $M o$ (excepting only Nos. 311, 312, 315, and 323). While the earlier fascicles of Mo for the first time offer a «Lesefeld» (Heinrich Besseler, «Studien zur Musik des Mittelalters I », AfMw VII [1925], 173), the arrangement is often not yet precise enough to permit reading performances. On the other hand, it is noteworthy that the extant $13^{\text {th }}$-century English

[^39]:    ${ }^{17}$ The solo portion of the plain chant ends with the words «ex semine Abrahe orta de tribu Iuda». An English composer of an organum Alleluia Nativitas, who inserted the Perotinian motet in his composition, omitted the word «Abrahe» with its six notes from the tenor, since he was evidently misled by its presence at the beginning of the poem. See No. 81 in Luther A. Dittmer, The Worcester Fragments [Roma] 1957 (Musicological Studies and Documents II), (WF).
    ${ }^{48}$ The short concluding melisma of the motet Factum est salutare ( $F 2,28$ ) is due to the same respect for the liturgical word; it does not betoken conductus influence as has been suggested (H. Tischler, «English Traits in the Early 13 ${ }^{\text {th }}$-Century Motet», MQ XXX [1944], 470).

[^40]:    ${ }^{49}$ Kuhlmann, Motetten II, 183.
    ${ }^{50}$ Cf. Hans Nathan, «The Function of Text in French $13^{\text {th }}$-Century Motets », MQ XXVIII (1942), $451 / 452$. No motet source preserves the phrase exactly as given in Ex. 19; the two that come closest to the original are $W F$ No. 81 and $W_{2} 1,15$; the latter is a French contrafactum of Ex semine.

[^41]:    ss Kuhlmann, Motetten I, 69-76.
    ${ }^{56}$ Rokseth, Polyphonies IV, 249 s.
    ${ }^{57}$ Cf. Ludwig, Repertorium, 35, 39, 40 s, 99.
    ${ }^{58}$ The source clausula for Qui servare puberem also appears as a melisma on the words
    «Benedicamus domino» attached to the conductus Columbe simplicitas. Cf. M. Bukofzer, *Interrelations between Conductus and Clausula», AnnMl I (1953), 78.
    ${ }^{50}$ H. Husmann, «Ein Faszikel Notre-Dame-Kompositionen», AfMw XXIV (1967), 7.
    ${ }^{60}$ Ludwig, «Quellen », 189.
    ${ }^{61}$ L. Dittmer, A Central Source of Notre-Dame-Polyphony, Brooklyn 1959, 64 (Publications of Mediaeval Musical Manuscripts III).
    ${ }^{68}$ Cf. etiam supra, 511.

[^42]:    ${ }^{68} W_{1}$ does not recognize the motet as a species; Ludwig's argument that the tenors were added from the fourth fascicle or from memory (Repertorium, 301) seems most improbable.
    ${ }^{64}$ Cf. Tischler, «English Traits», 471. There is no reason to posit «an extremely dissonant style which is not infrequent in music of the early thirteenth century» (Archibald T. Davison and Willi Apel, Historical Anthology of Music I, Cambridge, Massachusetts 1950, 218).
    as Discantus Positio Vulgaris, CS I, 96 b; Cserba, Hieronymus de Moravia, 193.
    ${ }^{6 s}$ The pieces in Madrid, Biblioteca nacional mss. 20486 (Ma), fol. 5 ss , are troped organa.
    ${ }^{67}$ Cf. E. Sanders, «Peripheral Polyphony of the $13^{\text {th }}$ Century», JAMS XVII (1964), 283 ss. Another probable case of a conductus or cantilena turned into a motet is Ave gloriosa mater (ib., 279/280).

[^43]:    ${ }^{44}$ The case of Nostrum is also very indicative. The scribe of $F$, the only manuscript preserving the motet, left a short musical passage of the duplum empty, since understandably there was some difficulty in getting the text to fit both upper voices (fol. 384' - cf. plate 4).

[^44]:    75 There seems to be no convincing reason for assuming, as Ludwig did (Repertorium, 112), that the one motet in the $9^{\text {th }}$ fascicle of $F$ (containing motets for two voices) which appears in $W_{2}$ as a conductus motet was therefore originally a composition for three voices. The case is comparable to the clausula $E t$ gaudebit No. 1 ( $F$, fol. $45^{\prime}$ ), whose triplum Ludwig acknowledged to have been added to the two-voiced original (Repertorium, 64).
    ${ }^{76}$ «Tenor», says Franco, «cuidam littere equipollet» (Ars cantus mensurabilis, CS I, 130 a ; Cserba, op. cit., 252); the wording of this statement seems to indicate that the tenor was not a specifically vocal concept.
    ${ }^{77}$ See examples 26 and 27.
    ${ }^{78}$ Not until the Mozartean operatic ensemble does polytextuality again appear as a compositional principle.

[^45]:    ${ }^{79}$ Cf. Ludwig, Repertorium, 109. The situation is reminiscent of the emergence of the trope: «Once the trope and sequence appeared with texts, the possibility of transferring a trope to a different Gregorian chant disappeared, and every trope was attached to a definite melody" (J. Handschin, «Trope, Sequence, and Conductus», NOHM II, 149).
    ${ }^{80}$ The expression was coined by Ludwig for motets with two separately texted upper voices.
    ${ }^{81}$ Since the two upper voices had no clear musico-textual individuality, in the process of making a double motet from a conductus motet the text could be apportioned to either. Cf. H. Husmann, «Bamberger Handschrift», MGG I (1949-1951), 1204s.
    ${ }^{8 \geq}$ Cf. Götz D. Sasse, Die Mehrstimmigkeit der Ars Antiqua in Theorie und Praxis, Borna/ Leipzig 1940, 71/72.
    ${ }^{88}$ Two French contrafacta of double motets in $F$ are not included in this count.
    ${ }^{86}$ Ludwig, Repertorium, 34, 63, 64, 112, 115, 118, 136, 137, 203. He also suggested that the two-voiced motet derived from the three-voiced clausula $G_{0}$ No. 2 might be a reduced version of a lost motet for three voices (ib., 113).

[^46]:    ${ }^{83}$ De musica, GS I, 16a.
    ${ }^{94}$ De Institutione musica, book II, chapter 3.
    ${ }^{\text {os }}$ Speculum Musicae, I, ed. Roger Bragard, Roma 1955, 11 (CSM III). The last 47 chapters of the first book deal with the properties of numbers and extensively answer the question «quid sit proportio».
    ${ }^{*}$ Heinrich Hüschen, «Augustinus», MGG I (1949-1951), 852.
    ${ }^{\text {07 }}$ For instance, Michael Praetorius writes in 1619: «Nam sine lege $\&$ mensura canere, est Deum ipsum offendere, qui omnia numero, pondere \& mensura disposuit, ut Plato inquit » (Syntagma Musicum III, Wolfenbüttel 1619, 79). Praetorius's boner (Plato) contains an element of truth, since, significantly, the Book of Wisdom, whose canonicity was already doubted by Jerome, was a Hellenistic creation that originated in Alexandria in the first Christian century.
    ${ }^{08}$ Von Simson, Gothic Cathedral, 212.
    ${ }^{98}$ Ib., passim - Professor von Simson's book has been criticized by two reviewers for its emphasis on the ratios of octave, fifth, and fourth, when others are also in evidence (Kenneth J. Conant, in Speculum XXXIII [1958], 157 s , and Sumner M. Crosby in The Art Bulletin XLII [1960], 156). The difficulty, it seems to me, derives from a confusion of *musica instrumentalis» and «musica generaliter sumpta». Because musical traditions and the Pythagorean system combined to deny simple proportionality and consonant status to such

[^47]:    intervals as the third (major or minor), it does not follow that 4:5 or 5:6 are «dissonant» (Conant) or greatly inferior proportions. That numbers «generaliter sumpti» are of divinely established significance was to the Middle Ages amply revealed by the consonant tetraktys. ${ }^{100}$ Curtius, Europäische Literatur, 494 ss.
    ${ }^{101}$ Von Simson, op. cit., 23 (St. Augustine), 37 s; cf. etiam 198-200.
    ${ }^{102}$ Ernst Rohloff, Der Musiktraktat des Johannes de Grocheo, Leipzig 1943, 57; Johannes
    Wolf, «Die Musiklehre des Johannes de Grocheo», SIMG I (1899/1900), 108.
    ${ }^{108}$ Franco, Ars cantus mensurabilis, CS I, 130 b; Cserba, Hieronymus de Moravia, 252.
    ${ }^{104}$ Speculum musicae, CS II, 386.
    ${ }^{105}$ Von Simson, op. cit., 51.
    ${ }^{108}$ De musica, GS I, 16.

[^48]:    107 Tractatus de musica, CS I, 252a; cf. Gerhard Pietzsch, Die Klassifikation der Musik von Boetius bis Ugolino von Orvieto, Halle 1929, 86.
    ${ }^{108}$ Smith, «Repetition», 351; also, 329.
    ${ }^{109}$ Bukofzer, «Discantus», 563 ; cf. etiam 566/567.
    110 Pietzsch, op. cit., 51.
    111 Not, of course, in the commonly accepted sense of «tonality».
    112 Discantus Positio Vulgaris, CS I, 96 b; Cserba, Hieronymus de Moravia, 193.
    ${ }^{118}$ Regarding the medieval concept of «ordo» see Hermann Krings, «Das Sein und die Ordnung», DVLLG XVIII (1940), 233-249.
    ${ }^{114}$ For the influence of number symbolism on medieval architecture, see von Simson, Gothic Cathedral, 134 n. 115. As to medieval number symbolism, generally, see Vincent F. Hopper, Mediaval Number Symbolism, New York 1938; Curtius, Europäische Literatwr, Exkurs XV.

    115 Walter Wiora, «Zum Problem des Ursprungs der mittelalterlichen Solmisation», Mf IX (1956), 265.

[^49]:    116 Fritz Feldmann, «Numerorum mysteria», AfMw XIV (1957), 114.
    117 Thomas Aquinas - quoted in Erwin Panofsky, Gothic Architecture and Scholasticism, New York 1958, 38.

    118 Sarah J. M. Williams, The Music of Guillaume de Machaut, Diss. Yale University 1952,31.
    ${ }_{119}$ Panofsky, op. cit., 30, 31.
    ${ }^{120}$ Its prestige is attested by the many musical manuscripts that are devoted more or less exclusively to the motet of the $13^{\text {th }}$ century; musical sources of the $14^{\text {th }}$ century, most of which mix the genres, as a rule place the motets at the beginning.
    ${ }^{191}$ Sanders, «Peripheral Polyphony», 264 ss.
    192 Rokseth, Polyphonies IV, 80.

[^50]:    ${ }^{123}$ Cf. supra, 498.
    124 Bukofzer, «Discantus», 566; cf. etiam Kuhlmann, Motetten I, 4.
    ${ }^{125}$ Repertorium, 85. According to Besseler, «Diskantpartien waren wohl die eigentliche Ausbildungsstätte der Modalrhythmik» («Ars Antiqua», MGG I [1949-1951], 682).
    ${ }^{186}$ Ludwig, Repertorium, 152/153.

[^51]:    ${ }^{197}$ All indications lead to the conclusion that «modal rhythm» was not applicable to Notre-Dame conducti, at least not before it evolved in the clausulae. In the first place, caudae in second mode are extremely rare. More compelling is the fact that again and again comparison of versions of conducti in the mensural sources Burgos, Monasterio de Las Huelgas, ms. s.n. ( Hu ) and Paris, Bibliothèque Nationale, ms. fonds français 146 (Fauv), with their earlier concordances in the Notre-Dame manuscripts and in $\mathrm{St} V$ reveals situations leaving little doubt that the later versions as a rule were attempts at rhythmic and notational modernization, which often presented thoray problems to the perplexed scribe. Generally, the shortest syllabic value in the conductus, as in organum, seems to have been the «longa ultra mensuram», i.e. the ternary long or its equivalent (cf. also J. Handschin, «Conductus», MGG II [1952], 1623). This may be the meaning of the much-debated passage in the Discantus Positio Vulgaris that the conductus is a polyphonic composition «super unum metrum» (CS I, 96 b; Cserba, Hieronymus de Moravia, 193). Moreover, Johannes de Grocheo (ca. 1300), who regards the polyphonic conductus as a kind of organum, still specifically states that the monophonic conductus «ex omnibus longis et perfectis efficitur» (Wolf, Musiklehre, 91, 107; Rohloff, Musiktraktat, 50, 56s). The recent researches of Husmann («Deklamation und Akzent in der Vertonung mittellateinischer Dichtung », AfMw XIX/XX [1962/1963], especially pages 5 ss) and Chailley («Sur la rythmique des proses victoriennes», Fs. Fellerer, Regensburg 1962, 77-81) can be cited in support of the view that modal rhythm is improbable in Latin poetry, in Latin poetic monophony, and in the polyphonic conductus before ca. 1210. Many of the more elaborate pieces have the appearance of melismatic compositions (premodally trochaic), with a bit of text here and there, where truly it seems as if «cauda movet canem».

    128 Grocheo states that in contrast to monophonic secular song polyphonic music was specifically referred to as «musica mensurabilis», «musica mensurata», or «musica precise mensurata». All monophonic music was «non ita precise mensurata» (Wolf, op. cit., 83-85, 100; Rohloff, op. cit., 47,53 ), which can only mean that the notation was rhythmically equivocal, because the performer was not bound as he was in polyphony. The secular repertory confirms Grocheo: «Careful examination of the variants discloses that only a very small number of the chansons were meant to be performed in a strict, a modified, or a mixed modal rhythm» (Hendrik van der Werf, «The Trouvère Chansons as Creations of a Notationless Musical Culture», Current Musicology I [1965], 67). There is no evidence for any systematic quantification of syllables in music «cum littera» (French or Latin) prior to the motet, which is the sole species to furnish examples to $13^{\text {th }}$-century theorists for the

[^52]:    ${ }^{140}$ For instance, only $22 \%$ of the motets in the sixth fascicle of $M o$ have such tenor patterns.
    ${ }^{141}$ It was Bukofzer who emphasized that the appearance of clausulae with tenor patterns containing breves involved not only acceleration of the tenor, but also rhythmic assimilation of the voices ( $\kappa$ Discantus», 564 s ).

    142 J. Handschin, «Zur Geschichte von Notre Dame», AMl IV (1932), 10.
    148 Cf. especially Ludwig, Repertorium, 301 s. In one case the tenor even precedes the two upper voices of the conductus motet for which it is the basis (Ma 4, 23: Ecclesie vox hodie). The scribe of $M a$ evidently viewed motets as conducti, since he omitted practically all the tenors.
    ${ }^{144}$ Ludwig, Repertorium, 206.
    ${ }^{145}$ De speculatione musicae, CS I, 248 a.
    146 Jacobus Leodiensis, Speculum musicae, CS II, 386b. Ludwig has cited the case of one of the literary figures in the Commenz d'Amours, who is there described as singing the motetus of $M o 7,262$, while traveling into exile («Quellen», 216).

    147 F. Gennrich, *Trouvèrelieder und Motettenrepertoire», ZfMw IX (1926), 80/81. Mme. Rokseth's opinion that such pieces originated as strophic songs, which were then stripped of all but the first stanza in order to become moteti (Polyphonies IV, 240), is supported by no specific evidence.

[^53]:    ${ }^{148}$ Cf. Kuhlmann, Motetten I, 36-39.
    ${ }^{149}$ Not surprisingly, the motets for two voices harbor the largest proportion (Rokseth, Polyphonies IV, 247).
    ${ }^{150}$ Ludwig, Repertorium, 217s, 290, 432s; Gennrich, op. cit., 10, 16s; Rokseth, op. cit., 204. A similar specimen is $W_{2} 2,84$, whose tenor, consisting of eleven pitches, is divided into two unpatterned groups of five and six notes, respectively; each group is stated twice to accommodate the phrase design (aabb) of the motetus; moreover, the fourth note of the cantus firmus is changed for contrapuntal reasons, though many other cases exist where repetitions in a motetus produced dissonances with the tenor, dissonances that in «moteti colorati $\geqslant$ of this sort had theoretical sanction, e.g. Odington: «Alio modo excusatur discordia, ut in motetis coloratis, quum scilicet super certum tenorem aliqua pars cantilene iteratur» (De speculatione musicae, CS I, 246a).
    ${ }^{161} \mathrm{Cf}$. Mo 6, 184 with the other versions of this motet.
    ${ }^{162}$ Mo 6,225 - The form of the tenor is abbb'bb'; the last two of the three pairs support closely related melodic materials in the motetus, whose sophisticated phrase structure, shaped by the incorporation of a refrain, does not parallel the form of the tenor.
    ${ }^{168}$ Another exception is the singular (Perotinian) Latin triple motet. Cf. supra, 523.
    ${ }^{164}$ Ludwig, Repertorium, 196s, 390; Rokseth, Polyphonies IV, 215.

[^54]:    ${ }^{155}{ }^{5} \mathrm{Cf}$ C. supra, 524.
    ${ }^{15}{ }_{2}$ De speculatione musicae, CS I, 248 a.

[^55]:    ${ }^{173}$ E.g. mm. 16 ss of $W F$ No. 31.
    174 Odington pointed out that a composition exhibiting all the features of the rondellus except its initative technique would be a conductus (De speculatione musicae, CS I, 245 b ).
    ${ }^{175}$ The published edition of this piece is defective.

[^56]:    ${ }^{178}$ This attitude may also help to explain the absence of true motets from $W_{1}$.
    ${ }^{177}$ E. g. Mo 4,69 and, especially, Mo 4,68=WF No. 95.
    ${ }^{178}$ Cf. E. Sanders, «Die Rolle der englischen Mehrstimmigkeit des Mittelalters in der Entwicklung von Cantus-firmus-Satz und Tonalitätsstruktur», AfMw XXIV (1967), 42.

[^57]:    $179 \mathrm{Ib} ., 43$ (Cambridge, Trinity College, Ms. 0.2 .1 contains two additional specimens). Close equivalents occur in only two motets of a Continental manuscript: Fauv Nos. 20 (a2) and 32. Cf. Sanders, «Peripheral Polyphony», 285 n. 121.
    ${ }^{180}$ This voice was omitted by the scribe of $M o$, undoubtedly «because textless accompanying voices were unknown on the Continent» (E. Apfel, «Zur Entstehung des realen vierstimmigen Satzes in England $»$, AfMw XVII [1960], 86).
    ${ }^{181}$ Three of them also appear in Continental manuscripts, generally with different tripla.
    ${ }^{182}$ The scribe of the motet version of $W_{2}$ was evidently altogether bewildered by the unfamiliar ligature pattern (fol. 157).
    ${ }^{188}$ One motet in which it occurs is Tu capud ecclesie / Tues Petrus / [Veritatem] in Durham, University Library, Bamburgh Collection, Select 13. I gratefully acknowledge Frank Harrison's kindness in calling my attention to the three Durham sources discovered by him. See his «Ars Nova in England: A New Source», MD XXI (1967), 67-85.

    184 All three are considered conducti by Harrison ( $\alpha$ English Church Music in the Fourteenth Century», NOHM III, 88, 89), even though one of them consists of «a setting of a single poem treated in rondellus manner by two parts over a wordless tenor* (ib., 88), and the other two feature voice exchange of the two upper parts over two untexted supporting voices.

[^58]:    ${ }^{185}$ The composition has been discussed repeatedly; detailed analyses were made by Ludwig ( $\kappa 50$ Beispiele», 220s) and Handschin ("Summer Canon II», 73 s).

    188 The entire prosa was published by Handschin in NOHM II, 156 s.

[^59]:    ${ }^{107}$ Pointed brackets indicate rests not part of a phrase.
    198 None of the versions printed by B. Stäblein (Hymnen I, Kassel etc. 1956 [Monumenta Monodica Medii Aevi I]) quite agrees with it.
    ${ }^{198}$ In view of the notation of the rests, the piece may be by Robertus de Brunham. Cf. J. Wolf, Geschichte der Mensuralnotation von $1250-1460$ I, Leipzig 1904, 87.
    ${ }^{200}$ Several English sources of the time contain specimens of such motets. As to the probable origin of this type of piece, see Sanders, «Rolle der englischen Mehrstimmigkeit », 45 .
    ${ }^{901}$ It may be an adaptation of the end of the antiphon Anima mea liquefacta est, whose last words «quia amore langueo» are at least tenuously evoked by the beginning of the text of the top voice.

[^60]:    ${ }^{208}$ Cf. Harrison, «English Church Music», 87 s .
    ${ }^{204}$ E. Apfel, Studien zur Satztechnik der mittelalterlichen englischen Musik I, Heidelberg 1959, 49. These are also features inherited from non-isorhythmic isoperiodicity; in some isoperiodic compositions rests in the tenor are the occasion for parallel motion in semibreves in the other voices. Cf. G. Reese, Music in the Middle Ages, New York 1940, 402.
    ${ }^{205}$ See Sanders, «Tonal Aspects», 24-27; the first word of Ex. 4, ib., is «Meroris», not «Peroris» or «Perolis».

    208 «English Church Music», 89-91. The first three motets in the Hatton manuscript sectionally alternate ternary and binary mensuration of the longa.
    ${ }^{207}$ London, British Museum, Add. 24198; Add. 40011B (LoF); Oxford, Bodleian Library, Bodl. 652.

[^61]:    911 If the term had not been pre-empted by Bukofzer for a formal device of the early seventeenth century (Music in the Baroque Era, New York 1947, 31), it might be proper to designate such motets as examples of «strophic variation*. Approximately in the third

[^62]:    ${ }^{220}$ Only two motets are known for which a pre-existing non-Gregorian Latin song served as tenor. One is Caro / His hec / Anima, an early composition (possibly from Perotinian times), whose tenor was drawn from the conductus repertoire (discussed by Husmann, Bukofzer, and Leo Schrade, most extensively by the latter: «Unknown Motets in a Recovered Thir-teenth-Century Manuscript», Speculum XXX [1955], 404-412). The other case is a fragmentary English composition in Cambridge, Pembroke College, Ms. 228 (early fourteenth century), whose tenor «Laus honor Christo vendito* is the refrain of a cantilena.
    ${ }_{221}$ Rokseth, Polyphonies IV, 213.
    292 J. Handschin, «Über Voraussetzungen, sowie Früh- und Hochblüte der mittelalterlichen Mehrstimmigkeit», Schweizerisches J. für Musikwissenschaft II (1927), 40.
    ${ }^{229}$ No. 3 is a cantilena, not a «conductus».
    224 «Motets inédits du XIVe siècle», RMl XXIX (1950), 27-34.

[^63]:    * ${ }^{335}$ For one of the earliest and most famous of these compositions a source clausula (Agmina) found its way into the $S t V$ manuscript.

    298 Sanders, «Peripheral Polyphony», 270-278.

    * ${ }^{287}$ The following motets, with the particular type of tenor indicated, may serve as examples: $M o$ 3, 46 (Communion); Mo 4,55 (Hymn); Mo 7,285 (Marian antiphon).
    ${ }^{298}{ }^{\circ}$ Mo 55, 72, 282, 284, 285 and Paris, Bibliothèque de l'Arsenal, ms. 135, No. 8.
    ${ }^{299}$ E.g. $F$, fol. 278', 301', 341', 342'.
    ${ }^{280}$ E.g. $F$, fol. 215, 284'.
    ${ }^{281}$ Two applicable cases (Mo 275 and 300) were therefore considered as English by Handschin (*Summer Canon II», chapter VI). Yet both demonstrate that motivic Stimmtausch depends on a pes. The use of a liturgical cantus firmus in these motets makes Stimmtausch impossible; therefore, the similarity to English procedures, while striking, is superficial.

[^64]:    ${ }^{282}$ Further details regarding the style of the peripheral motet: Ludwig, Repertorium, 391 ss, $424,438 \mathrm{~s}, 443 \mathrm{ss}, 452$; Besseler, «Studien II», 177 ss ; Rokseth, Polyphonies IV, 90 ; most of the motets discussed by Reichert («Wechselbeziehungen») are peripheral. - Some of the peripheral motet texts remained viable for an astonishingly long time. Thus, the poems of one of the peripheral motets in $F$ occur in two musical settings of the late 14th century (cf. Guillaume de Van, «A Recently Discovered Source of Early Fifteenth Century Polyphonic Music», MD II [1948], 60-65; Dragan Plamenac, «Another Paduan Fragment of Trecento Music», JAMS VIII [1955], 175-177). The texts of Mo 4,60, a St. Nicholas motet of wide dissemination, reappear in a setting by Hubertus de Salinis (late 14th century), adapted for St. Lambert, patron saint of Liège (Bologna, Civico Museo Bibliografico Musicale, Ms. Q 15, fol. 250').
    ${ }^{233}$ Speculum musicae, CS II, 428b.
    ${ }^{2 a 4}$ Besseler, «Studien II», 192.

[^65]:    ${ }^{235}$ Cf. Leo Schrade, «Philippe de Vitry : Some New Discoveries», MQ XLII (1956), 332.
    ${ }^{238}$ Gilbert Reaney, «Chanson», MGG II (1952), 1037 s.
    ${ }^{287}$ Cf. Ludwig, Repertorium, 159. Fascinating evidence of the process is Fauv No. 2, which apportions a Notre-Dame conductus tune (tenor) to the upper voice and accompanies it with a freely composed tenor. (The relations of the new tenor to the old duplum seem tenuous and entirely fortuitous.)
    ${ }^{288}$ Machaut's idiosyncratic cultivation of the French motet is exceptional and does not disprove its decline. He, too, ultimately abandoned the vernacular in his last motets (for a summary of chronological data see G. Reaney, «Towards a Chronology of Machaut's Musical Works», MD XXI [1967], 87-96). The last codex preserving a fairly significant proportion of motets with French texts is the Ivrea manuscript (Biblioteca capitolare, s.n.). By the end of the century the French motet has died out.

[^66]:    ${ }^{239}$ Leo Schrade, ed., Polyphonic Music of the Fourteenth Century I, Commentary, Monaco 1956, 23.
    ${ }^{240} \mathrm{Ib} ., 34$.
    ${ }^{241}$ Ludwig, «Musik des Mittelalters», 267.
    ${ }_{242}$ Besseler, «Studien II», 184, 196.
    243 Tractatus cantus mensurabilis, CS III, 124 a.
    244 Ludwig, «50 Beispiele», 204.

[^67]:    368 147 , the total number of breves contained in the motet, lies midway between $6(16+8)$ and $6(17+8)$. It is possible that the composer intended the motet as a reconciliation of two adjacent significant numbers, 24 and 25 , just as it blends two fundamental rhythms, modus perfectus (ternary) and modus imperfectus (binary). Several other cases of quasi-proportions are suggestive, e.g. Machaut's motet No.7. In the second and third taleae of its first section the three component phrases of both voices contain a total of $19 \mathrm{~B}+(12+7 \mathrm{~B})$, constituting 38 as an «excessive» number (2 more than 36). That the motet contains numerically excessive elements is particularly apparent in the manner in which the triplum once expands the
     first phrase of each talea ( $\mathrm{mm} .10-14,49-53,87-91$ ). The form of the triplum poem confirms this view of the motet: $2\left(3 a_{10}+b_{4}\right)$ etc. The first short verse is incorporated at the end of the five-breve unit of the first phrase, while the codetta-like expansion of the third phrase of the triplum accommodates the second short verse of each stanza.
    ${ }^{260}$ Tractatus cantus mensurabilis, CS III, 125 a.
    261 For Machaut's motets see Reichert, «Verhältnis zwischen musikalischer und textlicher Struktur».

[^68]:    ${ }^{208}$ «English Church Music», 84.
    268 The poetic structure is discussed in Reichert, op. cit., 207. - In some motets the ingredient phrases are arranged so as to yield interrelated proportions. Thus, No. 4 of the manuscript Ivrea (see Besseler, «Studien I», 188 ss) has the following structure:

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    \(15 B+2(12+36 B)+(12+21 B)\)
    \(20 B+2(6+30+12 B)+(6+22 B)\). The proportions of the essential components can
    \(3(30+18 \mathrm{~B})\)
    2:6
    be represented as \(1: 5: 2\). A similar construction is that of Ivrea No. 21 :
    \[
    5: 3
    \]
    \[
    (11+15 B)+2(12+15 B)+(12+16 B)
    \]
    \[
    4(12+9+6 B)
    \]
    \[
    9 B+3(13+14 B)+(13+5 B)
    \]
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[^69]:    ${ }^{208}$ It does not seem particularly useful to apply the term «isorhythm» to motets with upper voices whose phrases, while showing an ordered arrangement, exhibit no isorhythmic parallelisms whatever.
    ${ }^{209}$ Reichert, «Verhältnis $\boldsymbol{z}$ wischen musikalischer und textlicher Struktur », 211.
    ${ }^{370}$ Cf. Besseler, «Studien II», 168, 179, and Reichert, «Wechselbeziehungen», 165 ss. Its intricate structure makes it a kind of study in sevens and tens:

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    \(3(4+7+6 \mathrm{~L})\).
    \((6+7+5 \mathrm{~L})+(5+7+5 \mathrm{~L})+(5+7+4 \mathrm{~L})\).
    \(3(3+4+10 \mathrm{~L})\).
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    ${ }^{271} \mathrm{Hu}$ No. 132, mentioned by Higini Anglés, (El Codex musical de Las Huelgas I, Barcelona 1931, 293 [Biblioteca de Catalunya. Publicacions del departament de música VI]) is surely too primitive to be termed isorhythmic.
    ${ }^{273}$ Cf. Sanders, «Rolle der englischen Mehrstimmigkeit \#, 52 s .

[^70]:    ${ }^{278}$ Harrison, Review of Apfel, Studien, ML XLI (1960), 377.
    274 CS III, ix.
    ${ }^{275}$ Ursula Günther, «The $14^{\text {th }}$-Century Motet and Its Development», MD XII (1958), 32.
    ${ }^{276}$ Reichert, «Verhältnis zwischen musikalischer und textlicher Struktur», 198-200.
    ${ }^{277}$ H. Besseler, Die Musik des Mittelalters und der Renaissance, Potsdam 1931, 133 (Handbuch der Musikwissensehaft VI).
    ${ }^{278}$ Cf. Günther, op. cit., 35; ead., «Chronologie und Stil der Kompositionen Guillaume de Machauts», AMI XXXV (1963), 113. - This is, mutatis mutandis, still true of the Chantilly motets of the late $14^{\text {th }}$ century. Cf. ead., «14th-Century Motet», 46.

    879 Reichert, «Verhältnis zwischen musikalischer und textlicher Struktur», 202, 203, 205, 210, 212, 214-216. - The case of Machaut's motet No. 6 with its intricate tenor design (cf. Otto Gombosi, «Machaut's Messe Notre-Dame», MQ XXXVI [1950], 220s) furnishes

[^71]:    ${ }^{288}$ Numeration of the edition by Ursula Günther, The Motets of the Manuscripts Chantilly, musée condé, 564 (olim 1047) and Modena, Biblioteca estense, a. M. 524 (olim lat. S68) [Roma] 1965 (CMM XXXIX).
    ${ }^{289}$ See ib., lviii and lxii n. 1.
    ${ }^{200}$ As it happens, the lower voices are in each section subdivided into four taleae. But in most motets of this sort the talea organization of tenor and contratenor does not exceed that of the upper voices.
    ${ }^{291}$ For mensural proportionality in works by later composers, such as Josquin and Willaert, see R. Dammann, «Spätformen der isorhythmischen Motette im 16. Jahrhundert», AfMw $X$ (1953), 20 ss.

[^72]:    199 Chantilly No. 6.
    ${ }^{296}$ Van den Borren, Polyphonia Sacra, No. 24.
    ${ }^{297}$ No. 23 of the collection edited by van den Borren even gives up the principle of diminution. The tenor consists of two pairs of taleae with no rhythmic or numerical relationships. In effect, it is like two motets glued together, with the tenor of the second disposed in a somewhat faster mensuration.
    ${ }^{298}$ Numeration according to de Van's edition (Roma 1960 [CMM I. 2]).
    ${ }^{208}$ A basically similar concept underlies No. 15 of the Chantilly motets; Ursula Günther calls it a *non-isorhythmic composition, which approaches what might be called nowadays Passacaglia form» (Motets of the Manuscripts Chantilly, Ixiv).
    ${ }^{300}$ Richard H. Hoppin, ed., The Cypriot-French Repertory II, Roma 1961 (CMM XXI).
    ${ }^{301}$ Cf. id., *The Cypriot-French Repertory », MD XI (1957), 108 s.

[^73]:    ${ }^{802}$ Cf. Ludwig, Repertorium, 369. As Ludwig points out, one case of imitation not motivated by identical texts does occur in this motet.
    ${ }^{809}$ The article by Denis Harbinson, «Imitation in the Early Motet», ML XLV (1964), 359-368, has been refuted by Finn Mathiassen, The Style of the Early Motet, Copenhagen 1966, 102 (Studier og publikationer fra Musikvidenskabeligt Institut Aarhus Universitet I).
    ${ }^{804}$ Rokseth, Polyphonies IV, 246.
    ${ }^{805}$ E.g. Vitry's No. 12, which also happens to be the rare exception to the rule, since it contains some imitations and one short Stimmtausch passage after the introitus.

[^74]:    ${ }^{306}$ A striking case of isorhythmic and isomelic correspondences is Vitry's No. 3, one of his earliest compositions, where the design of the tenor obviously accounts for the situation. Clarity and pregnancy of melodic style are, of course, characteristic of many motets by Vitry. Cf. Besseler, «Studien II», 193 ss.
    ${ }^{307}$ Most forcefully in Besseler's Bourdon und Fauxbourdon, Leipzig 1950.
    ${ }^{208}$ A singular case is the motet contained in the manuscript Oxford, Bodleian Library, Can. Class. Lat. 112, fol. $61^{\prime} / 62$ ', which dates from the early $14^{\text {th }}$ century. I gratefully acknowledge the kindness of Prof. Reaney, who called my attention to its provenance. A transcription is appended (cf. infra, 571-573).
    ${ }^{809}$ See Nino Pirrotta, «Jacobus de Bononia», MGG VI (1957), 1624; Plamenac, «Trecento Music», 169; G. Reaney, «The Manuscript London, British Museum, Additional 29987 (Lo) », MD XII (1958), 82. - The one exception is the motet ascribed to Matteo da Perugia (cf. Günther, The Motets of the Manuscripts Chantilly, 1v).

    310 The suggestion that the tenor of Petrum / O Petre may be a paraphrase of a plainchant cantus firmus (Samuel E. Brown, Jr., «A Possible Cantus Firmus Among Ciconia's Isorhythmic Motets», JAMS XII [1959], 13s) rests on very questionable evidence.
    ${ }^{311}$ Another such motet by an Italian composer was published by van den Borren (Polyphonia Sacra, No. 29).
    ${ }^{312}$ Of course, isomelic correspondences also occur in other places. Particularly striking are the cases of correspondence by inversion in Ut te / Ingens, e.g. mm. $1 \mathrm{ss}, 57 \mathrm{ss}$ and 26 ss , 82 ss (Suzanne Clercx, Johannes Ciconia II, Bruxelles 1960, 160-163, contain a modern edition) or by transposition. Cf. Brown, op. cit., 10.

[^75]:    ${ }^{813}$ Hoppin, Cypriot-French Repertory II, is.
    ${ }^{814}$ This homogenization of all voices at hocket or syncopation passages in the upper voices was already known to Machaut.
    ${ }^{815}$ As a rule, the animation «leads directly to a strong cadence marking the end of the period by an almost complete cessation of all rhythmic activity for the duration of a full perfection of modus» (R. Hoppin, «A Fifteenth-Century "Christmas Oratorio»», Essays on Music in Honor of Archibald Thompson Davison, Cambridge, Massachusetts 1957, 48; similarly in Hoppin, «Rhythm as a Structural Device in the Motet Around $1400 \%$, JAMS III [1950], 158). However, at least one of the upper voices always bridges two successive taleae. (See also Nos. 4 and 5 of the Chantilly motets.)
    ${ }^{318}$ A singularly attractive monotextual motet, isorhythmically constructed over a nonGregorian tenor, is the Christmas motet Nova vobis gaudia, by the French composer Grenon (published in J. Marix, Les Musiciens de la Cour de Bourgogne au XVe siècle, Paris 1937, 233). The piece is full of rhythmic imitations (overlapping or antiphonally alternating) that constantly hover on the edge of melodic imitation.
    ${ }^{117}$ Doctorum principem / Melodia suavissima contains examples of the ingenious conversion of hocket technique into imitation.
    ${ }^{318}$ All of them are tonally unified.
    ${ }^{310}$ De Van considered No. 14 as «opus dubium».

[^76]:    4 Prcsumably this means that hocketing above a tenor can be improvised as an ornament as well as composed and notated.

    5 "Scias igitur quod illa hoquetatio fit aut per resecationem vocum aut sine resecatione. Si sit sine resecatione hoc erit dupliciter, quoniam aut cum littera vel sine. Si cum littera sic erit secundum primum modum vel secundum vel tercium etc. aut secundum convenientiam unius modi cum altero vel pluribus et hoc per mutuationem vocum et pausationum subtiliter hinc et inde, et quandoque potest ibi resccatio reperiri, tamen hoc est raro. Si sit sine littera eadem est vocum altrinsecatio sed sepius mutuanda ac etiam resccanda. Si sit autem per resecationem vocum hoc erit dupliciter, quoniam aut supra tenorem alicuius modi vel plurium, aut sine tenore aliquo seu etiam fundamento. Si supra tenorem sit talis resecatio ordinata, hec erit sine littera, nisi aliquando conveniat in motellis, sicut patet in Povre secors vel consimilibus. Et nota quod talis altrinsecatio fit bis vel ter vel pluries continue pro voluntate mutua imponentis, aut per discantus appositionem sepius intermissa[m]. Et hoc dupliciter aut per voces utrinque simplices vel compositas ayt ex una parte sunt simplices et ex altera composite. Et nota quod talis vocum resecatio fit per longas rectas vel breves, quandoque regulariter ordinatas, quandoque irregulariter, sicut textus postea declarabit; aut fit etiam per semibreves inequales recto ordine dispositas et regulariter ordinatas, aut etiam irregulariter quoad dispositionem variatam, sicut textus proxime recitabit. Si sit autem sine tenore proprio alicuius modi, tunc tam longe quam breves quam etiam semibreves irregulariter et inordinate positas reperimus, similiter et confuse, ita quod vix aut nonquam ad certum equipollentie numerum quoad modum aliquem vel maneriem reducuntur." - Heinrich Sowa, Ein Anonymer Glossierter Mensuraltraktat 1279 (Kassel, 1930), pp. 97-98.

[^77]:    8 Ibid., p. 100.
    9 Ibid., p. 99.
    10 Denis Harbinson excludes the one motet specifically mentioned by the SaintEmmeram Anonymous from his article on "The Hocket Motets in the Old Corpus of the Montpellier Motet Manuscript," Musica Disciplina, XXV (1971), 99-112; see his note 2.
    ${ }^{11}$ In view of several recent references (including RISM B IV1) to the provenance of this manuscript as English, it ought to be pointed out once again that there are no compelling reasons for assigning it to England. If anything, content and date,

[^78]:    taken together, would make Spanish origin more probable. Cf. Ernest H. Sanders, "Peripheral Polyphony of the 13th Century," Journal of the American Musicological Society, XVII (1964), 261-63 and, especially, note 16; idem, "Duple Rhythm and Alternate Third Mode in the 13th Century," Journal of the American Musicological Society, XV (1962), note 27; Rudolf Flotzinger, Der Discantus-Satz im Magnus liber und seiner Nachfolge (Vienna, 1969), 297-300.

    12 F-Mo, No. 3 is a version of D-Ba, No. 106, while F-Mo, Nos. 2; 64; 128; and E-Ma, No. 71 are versions or concordances of D-Ba, No. 104.
    ${ }^{13}$ Charles E. H. Coussemaker, Scriptorum de Musica Medii Aevi . . . , II (Paris, 1867), 429a.

    14 Cf. Ernest H. Sanders, "Cantilena and Discant in 14th-Century England," Musica Disciplina, XIX (1965), 24ff.

    15 Santorre Debenedetti, "Un trattatello del secolo XIV sopra la poesia musicale," Studi Medievali, II (1906-7), 79.

[^79]:    is, a rhythmic syncopation of an upper voice against a steadily moving rhythm marking the strong accents in the tenor." He interprets Odington's description of truncation as referring exclusively to "a process which can be applied to a single voice (only) moving over a (non-truncated) tenor" (ibid.). That this is not what Odington meant is apparent not only from the word "semper," but also from the phrase following the sentence quoted by Harbinson: "vel si triplex, sic: duo cantent et tertius taceat" ("in three-part polyphony, two should sing and the third should be silent'). Moreover, just a few pages earlier Odington had stated that in hocket "dum unus cantat alter tacet, et e converso" ("one is silent while the other sings and vice versa" - Coussemaker, op. cit., I, 246a; Hammond, op. cit., p. 140). Clearly, in every instance Odington is concerned with hocket, not syncopation. The motets discussed by Harbinson were composed well before Odington wrote his treatise, by which time a tenor could indeed participate in hocketing, e. g., F-Mo, Nos. 250, 260, and 294, cited by Harbinson (p. 103) in that very cantext, as well as Ex. 4b, below.

    18 E. g., Pseudo-Tunstede; see Coussemaker, op. cit., IV (1876), 296.
    10 The classifications and definitions given in Marius Schneider's "Der Hochetus," Zeitschrift für Musikwissenschaft, XI (1929), 390ft., are not always properly supported by the available evidence.

    20 Volens autem hoquetum ex duobus, puta primo et secundo, componere debet cantum, vel cantilenam, supra quod fit hoquetus, partiri et unicuique partem distribuere. Et potest aliquantulo rectus cantus exire cum decenti additione, nisi quod eius mensuram observet. Sic enim unus iacet super alium ad modum tegularum et cooperture domus et sic continua abscisio fiet." - Ernst Rohloff, Der Musiktraktat des Johannes de Grocheo (Leipzig, 1943), p. 58.
    ${ }^{21}$ A "slightly cut" version of this piece has been printed in The History of Music in Sound, II, 58-60. The cut contains evidence that the piece does not have "only one upper part," but rather that the second upper part was written on lost leaves originally adjacent to the two folios (of two manuscripts) preserving the extant voices.

[^80]:    22 For a detailed discussion of the hocket as a type of variation technique available to composers of that time, see William E. Dalglish, "The Hocket in Medieval Polyphony," The Musical Quarterly, LV (1969), $944-63$. The author's brief discussion of "The Theory" contains a few untenable interpretations, which he adduces to give theoretical substantiation to the use of hocket as a variation procedure. PseudoTunstede's statement that "quelibet truncatio fundari debet super excogitatum tenorem vel super certum cantum, sive sit vulgare vel latinum," can only be understood to mean that "any truncation [i. e., hocket] must be founded on an invented tenor or on an established, fixed melody [i. e., certus cantus = cantus firmus], either vernacular or Latin." Certum can no more be translated as "some" than fundari could be associated with anything other than the medieval musical notion of the tenor as the fundamentum. Nor does the word vel permit the interpretation of cantus as "polyphonic work." Motets based on secular cantus firmi were not uncommon in England in the first half of the fourteenth century (e. g., Ex. 4a, above). Dalglish's translation of the cited passage from Franco's treatise must be similarly amended. The quoted excerpt from Grocheo's treatise (p. 363) merely describes compositional technique, not a type of "parody" procedure.

[^81]:    ${ }^{23}$ Rose Brandel, The Music of Central Africa (The Hague, 1961), p. 31f; J. H. Kwabena Nketia, "The Hocket-Technique in African Music," Journal of the International Folk Music Council, XIV (1962), 44-52.

    24 Robertus de Handlo; see Coussemaker, op. cit., I, 388b.
    25 Ernst Rohloff, op. cit., p. 57.
    ${ }^{26}$ See Robertus de Handlo; Coussemaker, op. cit., I, 388b, 402b.

[^82]:    27 Cf. D-Ba, Nos. 104 and 106; Anonymus IV in Coussemaker, op. cit., 1, 350a, and in Fritz Reckow, Der Musiktraktat des Anonymus 4, Part I (Beihefte zum Archiv für Musikwissenschaft, IV), p. 61; Heinrich Sowa, op. cit., p. 100.

    28 This is a slightly expanded version of my "Hocket" article prepared for the forthcoming sixth edition of Grove's Dictionary of Music \& Musicians, whose editors were kind enough to give their permission for its appearance in this journal.

[^83]:    *This paper was read at the Annual Mecting of the American Musicological Socicty (Washington, D.C., 1974). I gratefully acknowledge that the award of a Senior Fellowship from the National Endownent for the Huntanities enabled me to do the research for and writing of this article.
    ${ }^{1}$ Gervais du Bus, Le Roman de Fauvel, ed. Arthur Làngfors, Société des anciens textes français, Vol. LXXII (191-19), p. 48 (rss. 1225-26) and pp. 117 f. (vss. 3272-79).
    ${ }^{2}$ Charles-V. Langlois, La Vic en France au moyen âge d'après quelques moralistes dut te7ups (Paris, 1go8), p. 289.
    ${ }^{3}$ Polyphonic Music of the Fourteenth Century, ed. Leo Schrade, Conmentary to Vol. 1 (Monaco, 1956), p. 19.

    * Heinrich Besseler, "Studien zur Musik des Mittelalters," Archiv für Musik"issenschaft, VIII (1926), 192 ff.
    s. Emilie Dahnk, L'Hérésie de Faurel (Leipzig. 1935), pp. 76 f.

[^84]:    ${ }^{6}$ RISM B IV 2 (Manuscripts of Polyphonic Music [c. 1320-1400], ed. Gilbert Reaney [Munich-Duisburg, 1969]), pp. 43-45. The only publication entirely devoted to this manuscript is Richard H. Hoppin's "A Musical Rotulus of the Fourteenth Century," Revue belge de musicologie, IX (1955), 131-42.
    ${ }^{7}$ His treatise was written in 1322-23. See Ulrich Michels, "Der Musiktraktat des Anonymus OP," Archiv für Musikwissenschaft, XXVI (1969), p. 50, fn. 4; idem, "Die Musiktraktate des Johannes de Muris," Beibefte zum Archiv für Musikwissenschaft, VIII (1970), 55; Johannes de Muris, Notitia artis musicae et Compendium musicae practicae, ed. Ulrich Michels, Corpus scriptorum de musica 17 (n.p., 1972), pp. 9-10.
    ${ }^{8}$ See Charles E. H. de Coussemaker, Scriptorum de Musica mudii aevi nova series, Vol. I (Paris, 1864), pp. 389b and 424b; Vol. II (Paris, 1867), p. 401 b.
    ${ }^{9}$ RISM B IV ${ }^{2}$, 173 .
    ${ }^{10}$ It is so listed in RISM B IV ${ }^{2}, 44$ f.

[^85]:    ${ }^{11}$ See Polyphonic Music of the Fourteenth Century, Commentary to Vol. I, pp. 99 and 79.

    12 The only other extant motet with an $F$ neuma as cantus firmus is a later thirteenth-century piece in the Montpellier Manuscript (No. 291). Its series of eight pitches ( $f g a g a g g f$ ) is stated nine times in a simple modal arrangement (first and second ordo of fifth mode).
    ${ }^{13}$ E. Langlois, Recueil d'arts de seconde rbétorique (Paris, 1902), p. 12.

[^86]:    17 The notion of sectional acceleration of a tenor evidently arose before 1220 , that is, as soon as the breve was introduced into the patterned cantus firmus; many examples can be found among the so-called St.-Victor clausulae. Changes of tenor patterns within earlier clausulae or motets are neither accelerations nor decelerations but must be viewed as rhythmic variants.
    ${ }^{18}$ Actually, diminution was already one of the devices in Perotinus's technical arsenal. Although it was impossible to apply it to patterned tenors, it occurs in an unpatterned discant section of the Alleluia nativitas, where the twelve pitches of the concluding melisma are presented twice, first in double longs and then in longae simplices. A similar case is the second Domino of the Florence MS, fol. $87^{\circ}$.
    ${ }^{19}$ See Ernest H. Sanders, "The Medieval Motet," Gattungen der Musik in Einzeldarstellungen: Gedenkschrift Leo Scbrade (Bern and Munich, 1973), Pp. 560 ff .

[^87]:    ${ }^{24}$ See Joseph Petit, Charles de Valois (Paris, 1900), Pp. 135 and 146 ff.

[^88]:    ${ }^{25}$ Cf. Pierre Clément, Trois drames bistoriques (Paris, 1857), pp. 71 ff.; Joseph Petit, op. cit., pp. 139 ff.; Frantz Funck-Brentano, Pbilippe le Bel en Flandre (Paris, 1896), pp. 660 ff .
    ${ }^{26}$ The following texts are cited as examples (numeration in accordance with Ludwig's Repertorium; see Friedrich Gennrich, Bibliographie der ältesten Motetten, Summa Musicae medii aevi, Vol. II [Darmstadt, 1957]): Nos. 316, 616, 759-60; even No. 443, which mentions both Haman and the Jebusites, seems to make these allusions in a more general way as biblical evidence of God's power to redress the proliferating evils of an age.
    ${ }^{27}$ Lewis B. Paton, A Critical and Exegetical Commentary on the Book of Esther, The International Critical Commentary (New York, 1908), p. ıо7.
    ${ }^{28}$ Ibid., pp. гог ff .
    ${ }^{29}$ The most comprehensive bibliography is given in Lexikon für Tbeologie und Kirche, VII, 993. The following items should be added: Fidelis Schwendinger, "De Vaticiniis Messianicis Pentateuchi apud Nicholaum de Lyra, O.F.M.," Antonianum, IV (1929), 3-44, 129-66; Marcus Adinolfi, "De Mariologicis Lyrani Postillis . . . ," loc. cit., XXXIV (1959), $32 \mathrm{I}-35$; idem, "De protoevangelio (Gn 3, 15) penes Lyranum," loc. cit., XXXV (ı960), 328-38; idem, "De quibusdam Lyrani Postillis Marianis," Collectanea franciscana, XXXI (1961), 80-89; Herman Hailperin, Rashi and the Cbristian Scholars (Pittsburgh, 1963).

[^89]:    ${ }^{30}$ Henri de Lubac, Exégèse médiévale, Seconde Partie, Vol. I (= Théologie, XLII [1961]), Pp. 546 f.; Seconde Partie, Vol. II (= Théologie, LIX [1964]), pp. 325 f.
    ${ }^{31}$ From his commentaries on Chap. 3. An enormous number of manuscripts and early prints of Nicolaus's Postille have been preserved; see F. Stegmüller, Repertorium biblicum medii aevi, Vol. IV (Madrid, 1954), Nos. 5827 ff. The edition available to me was Postilla super totam Bibliam, Vols. I and II (Venice, n.d.), Vol. III (Venice, 1488).
    ${ }^{32}$ Stegmüller, op. cit., p. 51 .
    ${ }^{33}$ Hailperin, Rasbi and the Cbristian Scbolars, p. 143.
    34 C. Langlois, La Vie en France, pp. 289 f.; Mario Roques, "L'interpolation de Fauvel et le Comte d'Anjou," Romania, LV (1929), 548 ff.

[^90]:    ${ }^{35}$ C. Langlois, La Vie en France, pp. 284 f.
    ${ }^{36}$ Hailperin, Rasbi and the Christian Scholars, pp. 199 f ., documents this for Nicolaus de Lyra.
    ${ }^{37}$ Like others of his time, Nicolaus de Lyra "argued for a parallelism of the spiritual and temporal powers without any intervention of either in the other's affairs" (Hailperin, op. cit., p. 200). It should also be remembered that the rector of the University of Paris since at least 1312 was Marsilius of Padua, who in the second book of his one major work, the treatise Defensor pacis ( 324 ), expressed vehemently antipapal attitudes. Many of his revolutionary ideas and proposals are astonishingly modern.
    ${ }^{38}$ Schrade, "Philippe de Vitry," p. 350.
    ${ }^{39}$ Up to four per imperfect breve, i.e., semibreve, minim, semibreve, minim. Subdivision of the imperfect breve into more than five notes and of the perfect breve into more than seven-or at most eight-does not occur in motets written before the late fourteenth century, and even then it is quite rare.

[^91]:    ${ }^{44}$ According to Gace de la Buigne, Vitry made this motet as a young man (nouveaux) ; See Åke Blomqvist, ed., Gace de la Buigne, Le Roman des Deduis, Studia Romanica Holmiensia, III (1951), 315 f. Its use of French poetry, which is singular for Vitry's moters, also argues for a fairly early date of composition; so do its tenor and its style in general. Since the composition has no place in $f$. fr. 146, it seems best to date it shortly after 1316.
    ${ }^{45}$ Schrade, "Phillipe de Vitry," p. 353 f.; Alexander Blachly, "The Motets of Philippe de Vitry," (M.A. Thesis, Columbia University, 1971), pp. 133 f.
    ${ }^{46}$ Blomqvist, op. cit., p. 316.

[^92]:    ' 'Polyphonic Music for a Chapel of Edward III', Music \& Letters, lix (1978), 421. The manuscript is catalogued as M. 978 in the Morgan Library.
    ${ }^{2}$ Also preserved, fragmentarily and with textual and musical variants, in Oxford, Bodleian Library, Corpus Christi College MS 144, f. $28^{r-v}$.

[^93]:    ${ }^{3}$ For details of these events involving Queen Philippa, see Agnes Strikland, Lives of the Queens of England, v/1 (London, 1873), 395 ff.
    ${ }^{4}$ Op. cit., p. 421.

[^94]:    ${ }^{5}$ Ibid., p. 420 n. 3.
    ${ }^{6}$ I cannot agree with Professor Harrison (op. cit., p. 423) about the presence of an initial S. The piece seems to be preceded by an unalphabetic ornament in the margin.
    ${ }^{7}$ Op. cit., p. 425.
    ${ }^{8}$ Bodleian Library, Barlow 55, No. 4; Mus. d. 143, No. 2.

[^95]:    ${ }^{1}$ First published in Adrien de LaFage, Essais de dipbtbérograpbie musicale (Paris, 1864; reprinted Amsterdam, 1964), pp. 355 ff. The polyphonic part of the treatise was given by Jacques Handschin in "Zur Geschichte der Lehre vom Organum,"

[^96]:    Zeitscbrift für Musikwissenscbaft, VIII (1926), pp. 333 ff., and again in "Aus der alten Musiktheorie," Acta musicologica, XIV (1942), Pp. 24-5. The entire treatise was published by Albert Seay, "An Anonymous Treatise from St. Martial," Annales musicologiques, V (1957), pp. 7-42. (There is no evidence for provenance from St. Martial.) My reading corresponds most closely to that given by Handschin in 1942.
    ${ }^{2}$ Hieronymus de Moravia, Tractatus de musica, ed. Simon Cserba, Freiburger Studien zur Musikwissenschaft, II (Regensburg, 1935), pp. 189-91; Edmond de Coussemaker, ed., Scriptorum de musica medii aevi nova series, 4 vols. (Paris, 1864 ; rprt. Hildesheim, ${ }^{1963}$ ), I, Pp. 94-5. The entire treatise has been translated by Janet Knapp, "Two XIII-Century Treatises on Modal Rhythm and the Discant," Journal of Music Theory, VI (1962), pp. 200 ff . As to the chronological layers of the treatise, see Fritz Reckow, "Proprietas und Perfectio," Acta musicologica, XXXIX (1967), p. 137, n. 8 I . The fact that parts of it must be recognized as inorganic later additions does not, however, justify the conclusion that its essential parts were written after Garlandia's treatise (Reckow, Die Copula, Akademie der Wissenschaften und der Literatur, Abhandlungen der geistes- und sozialwissenschaftlichen Klasse, XIII (Mainz, 1972), p. 7, n. I). On the contrary, significant portions of it bear out Jerome of Moravia's remark that "antiquior est omnibus" (Cserba, p. 194; Coussemaker, p. 97).

[^97]:    ${ }^{3}$ Erich Reimer, Jobannes de Garlandia: De mensurabili musica, 2 vols., Beihefte zum Archiv für Musikwissenschaft, X-XI (Wiesbaden, 1972), vol. I, p. 35.
    ${ }^{4}$ Fritz Reckow, Der Musiktraktat des Anonymus 4, 2 vols., Beihefte zum Archiv für Musikwissenschaft, IV-V (Wiesbaden, 1967), vol. II, p. 48, n. 29; Reimer, I, p. viii.
    ${ }^{5}$ The twelfth describes the copula.
    ${ }^{6}$ Willi Apel, "From St. Martial to Notre Dame," this Journal, II (1949), p. 149; William G. Waite, "Discantus, Copula, Organum," this Journal, V (1952), p. 82. See also Apel's and Waite's Communications in the same volume, pp. 272-6; Waite, Tbe Rbytbm of Twelftb-Century Polypbony (New Haven and London, 1954), Pp. 112 and I20.

[^98]:    ${ }^{7}$ Reimer, I, pp. 88-9.
    ${ }^{8}$ To the dates I proposed in 1967 ("The Question of Perotin's Oeuvre and Dates," Festscbrift für Walter Wiora (Kassel, 1967), pp. 244-8), I add here the suggestion that Leoninus "made" the Magnus liber around i 180 , since the choir of the new cathedral of Paris was finished in 1177-except for the roofing-and the high altar was consecrated in II82. It is difficult to imagine suitably stimulating conditions prior to that time.
    ${ }^{9}$ See n. 6 above.
    ${ }^{10}$ Manfred F. Bukofzer, Review of Waite, Tbe Rhythm of Twelfth-Century Polypbo$n y$ (see n. 6 above), Notes, XII (1955), p. 234.
    ${ }^{11}$ Apel, "From St. Martial," Pp. 149-52.
    12 Waite, Communication, p. 275. (It should be added parenthetically that the modi irregulares of Anonymous IV are by no means identical with Garlandia's modi non recti, as Waite assumed in "Discantus," p. 83.) For a comprehensive synopsis of the history of modern scholarly approaches to the matter of rhythm and consonance in the organal passages of the Magnus liber, see Reckow, Anonymus 4, II, pp. 73 ff., and,

[^99]:    more comprehensively, Hans H. Eggebrecht, "Organum purum," Musikalische Edition im Wandel des bistoriscben Bewustseins, ed. Thrasybulos G. Georgiades (Basel, 1971), PP. 93-112.
    ${ }^{13}$ Music कூ Letters, LIV (1973), p. 239.
    ${ }^{14}$ Reckow, Anonymus 4, II, P. 45.
    ${ }^{15}$ P. 44.
    ${ }^{16}$ Pp. 34, 64, 68, 78-89.
    ${ }^{17}$ Reckow, "Organum," Gattungen der Musik in Einzeldarstellungen: Gedenkscbrift Leo Scbrade, I (Bern and Munich, 1973), pp. 457-8. The difference seems not very great between this conclusion and Waite's, which Reckow criticized as a devaluation of the rule of consonance to an aid for the use ad libitum by medieval and modern performers in their choice of rhythms (Reckow, Anonymus 4, II, p. 74). With characteristic caution Eggebrecht thought that even in 1971 the rule of consonance might still not have been properly understood (Eggebrecht, p. 107).
    ${ }^{18}$ For more direct evidence of the existence of this practice by c. 1100 see Hans H. Eggebrecht and Frieder Zaminer, Ad organum faciendum. Lebrscbriften der Mebrstimmigkeit in nachguidoniscber Zeit, Neue Studien zur Musikwissenschaft, III (Mainz, 1970), Pp. 47-8, 79 ff.

[^100]:    ${ }^{19}$ Reckow, Anonymus 4, II, p. 3 .
    ${ }^{20}$ See Reimer, II, pp. 37-8.

[^101]:    ${ }^{21}$ See p. 266 above.
    ${ }^{22}$ Reimer, I, p. 67.
    ${ }^{23}$ Reckow, Anonymus 4, I, p. 80; Heinrich Sowa, ed., Ein anonymer glossierter Mensuraltraktat 1279, Königsberger Studien zur Musikwissenschaft, IX (Kassel, 1930), Pp. 53, 129, 130 . Regarding its performance, see the valuable remarks in Edward Roesner, "The Performance of Parisian Organum," Early Music, VII (1979), pp. 174-5.
    ${ }^{24}$ See Ingmar Bengtsson, "On Relationships between Tonal and Rhythmic Structures in Western Multipart Music," Studier: Tillagnade Carl-Allan Moberg (Svensk Tidskrift för Musikforskning, XLIII (1961)), Pp. 49-76.
    ${ }^{25}$ A better term would be "teacher-reporters". Cf. also Reckow, Anonymus 4, II, p. 14, n. 54.

[^102]:    ${ }^{26}$ Frieder Zaminer, ed., Der Vatikanische Organum-Traktat (Ottob. lat. 3025), Münchner Veröffentlicbungen zur Musikgeschichte, II (Tutzing, 1959).
    ${ }^{27}$ For an example see Frederick W. Sternfeld, ed., Music from tbe Middle Ages to the Renaisance (London and New York, 1973), p. 100.
    ${ }^{28}$ Perhaps we can assume that we are reasonably close to the Leoninian original in those cases where ( 1 ) all three manuscript versions agree except for minor ornamental variants (such passages are generally conservative in rhythmic style), (2) at least two versions agree in preserving an older style, (3) $W_{1}$, the manuscript reflecting an earlier stage of the Notre-Dame repertoire, presents an older version than the other two sources.
    ${ }^{29}$ Eggebrecht, pp. 95 and 107 ff.

[^103]:    ${ }^{30}$ Reimer, I, p. 56.
    ${ }^{31}$ Reimer, I, p. 61.
    ${ }^{32}$ Reimer, I, p. 62.

[^104]:    ${ }^{33}$ See the quote from Garlandia's eleventh chapter given below, p. 280.
    ${ }^{34}$ Reimer points out (II, p. 17 and n. 14) that the excerpt is actually taken from the duplum, which at that point, however, lies above the triplum. As to the translation of ars as "teaching," I quote from the Tractatus quidam de pbilosopbia et partibus eius by an anonymous author (presumably of the later twelfth century): "ars est collectio preceptorum, quibus ad aliquid faciendum facilius quam per naturam informamur" (Martin Grabmann, Die Geschichte der scholastiscben Metbode, II (Freiburg, 191 I; reprinted Berlin, 1957), p. 47). Ars, then, is a craft and its precepts.
    ${ }^{35}$ Admittedly, in a few, but by no means all cases, repeated notes would have made plicated notation difficult or impossible; yet these examples were evidently invented by Garlandia.

[^105]:    ${ }^{37}$ Reimer, II, p. 58; in contrast also to his discussion of the fifth mode (I, p. 55).
    ${ }^{38}$ Waite, Tbe Rbytbm of Twelfth-Century Polypbony, p. 78; Sanders, "Duple Rhythm," especially pp. 278 ff.
    ${ }^{39}$ Cserba, p. 190; Coussemaker, I, p. 95.
    ${ }^{40}$ Reimer, I, p. 50.
    ${ }^{41}$ Reimer, I, p. 38.
    ${ }^{42}$ Reimer, I, p. 39.

[^106]:    ${ }^{43}$ Reimer, II, p. 47.
    ${ }^{44}$ Coussemaker, I, p. 379. Anonymous IV already reverses the order of those two sentences (see Reckow, Anonymus 4, I, p. 26).

[^107]:    45 It is less certain than Reimer asserts (II, p. 51 , n. 30) that Garlandia meant only the caudae of (polyphonic) conductus when he described caudae and conductus as sine littera.
    ${ }^{46}$ This hypothesis is strongly supported by the instant and lasting (for three centuries) fame of Alexander de Villa-Dei's Doctrinale (written in Paris, presumably in 1 199), to which Rudolf Flotzinger recently drew attention (Flotzinger, pp. 203-8). The crucial verses ( $1561-4$ ) of this hexametric Latin grammar inform the reader that "while ancient poetry distinguished many feet [i.e., meters], a division into six modes (modi) is enough for us, [since] dactyl, spondee, trochee, anapest, iamb and tribrach are able to lead the way in metric poetry." These are, of course, the analogues of - one is tempted to say, the models for-Garlandia's modal taxonomy, and Flotzinger's conclusion that there was doubtless a connection seems clearly justified. His persistence in the traditional dating of the rise of the rhythmic modes (see $n .36$ above) is the more puzzling therefore.

    47 For evidence of this curious identification of a value of two time units (following

[^108]:    a longa ultra mensuram and preceding a brevis recta) as a breve-in England as well as on the Continent-see Sanders, "Duple Rhythm," pp. 263 ff.
    ${ }^{48}$ Reimer, I, p. 92.
    ${ }^{49}$ Reimer, I, p. 85.
    ${ }^{50}$ Reimer, I, p. 79.
    ${ }^{51}$ Reimer, II, p. 58.
    ${ }^{52}$ Cf. Sanders, "Duple Rhythm," pp. 284-5.

[^109]:    53 Anonymous VII discusses only the former, without even applying "perfect" as a label; Coussemaker, I, pp. 378-9.

[^110]:    ${ }^{54}$ Cf. Rudolf von Ficker, "Probleme der modalen Notation," Acta musicologica, XVIII-XIX (1946-7), p. 12.

[^111]:    ${ }^{5 s}$ For manuscript references see Friedrich Gennrich, Bibliograpbie der Ältesten französiscben und lateinischen Motetten, Summa musicae medii aevi, II (Darmstadt, 1957), p. 24.
    ${ }_{56}$ Reimer, I, p. 88.
    ${ }^{57}$ Reckow, Die Copula, pp. 13 ff. and passim.
    ${ }^{58}$ Reimer, II, pp. 35-7.

[^112]:    ${ }^{59}$ Reckow, Die Copula, p. 27.
    ${ }^{60}$ Ibid., p. 19.
    ${ }^{61}$ Ibid., p. 19 and n. 2.
    62 Ibid ., pp. 22-3.

[^113]:    ${ }^{63}$ Reimer, II, p. 43.
    ${ }^{64}$ Thus, the tendency to subsume all polyphony under the concept of mensurable music, which Reckow attributes to "the later 13th century" (Die Copula, p. 65), presumably originated before the middle of the century.

[^114]:    ${ }^{65}$ In relation to the time when the Magnus liber may be presumed to have been written, Garlandia's statements are "relatively late" (Eggebrecht, p. 105), but not so late as to be of questionable reliability and pertinence.
    ${ }^{66}$ Coussemaker, I, p. 245; Corpus scriptorum musicae, XIV, p. 139. Among other authors to describe the genres of polyphony are Jerome of Moravia (as presumable author of the additions to the Discantus positio vulgaris) and Jacobus of Liège; see Reckow, "Organum," pp. 436 ff.

[^115]:    1. Ultra mensuram sunt que minus quam uno tempore et amplius quam duobus mensutantur. . . Quandocumque due note ligantur in discantu, prima est brevis, secunda longa. . . . Item consonantia esr diversarum vocum in eodem sono vel in pluribus concordia. Inter concordancias autem ores sunt ceteris meliores, scilicet unisonus, diapence ee diapason. . . . Preterea nocandum quod omnes nore plane musice sunt longe et uitra mensuram, eo quod mensuram trium cemporum continent. Omnes autem note discantus sunt mensurabiles per directam brevem er directam longam. Unde sequitur quod super quamliber notam firmi cantus ad minus due nore, longa scilicet ec brevis, . . . proferri debent, que etiam convenire debent in aliqua dicrarum consonantiarum. . . . Sciendum insuper quod omnes note impares, he que consonant melius consonant, que vero dissonant minus dissonant quam pares.
    Hieronymus de Moravia, O. P. Tractatus de mesica, ed. Simon M. Cserba, Freiburger Studien zur Musikwissenschaft, 2nd ser., no. 2 (Regensburg, 1935), 190-91.
[^116]:    prehensive way, by Amerus (Practica arris musice [1271], Corpus Scriptorum de Musica, vol. 25, ed. Cesarino Ruini [American Instirute of Musicology, 1977], 99). Even though "Dietricus" had previously defined the nota caudata as a long, his use here of the rerm cawdata rather than longa-in concrast to the other two writers-may well juscify the application of this rule to the fair number of cases that are like the above-mentioned phrase in Ex. 6 as well as to the Perotinian "augmentacion" of that thythm ("third mode") presumably meant by "Diecricus." Subsequently, in Garlandia's time (probably the 1250 ), the practice arose of transposing the values of the two breves in the chird mode, thus making it compatible with the second rather than with the firse (see Sanders, "Consonance and Rhythm in the Organum of the 12 th and 13 th Centuries," Jowrnal of the American Musicological Society 33 [1980]: 277-80).
    8. William G. Waite, Tbe Rbybm of Twelfib-Century Polypbony, Yale Studies in the History of Music, 2 (New Haven, 1954), 105. The melismatic notation of the formula (Ex. ga) is easily accounted for by the notarors' traditional rendency to involve a quaternaria in order to indicare mocion in breves. In this case it was most conveniently written after an initial binaria. For similar seven-note groups with the same rhythm, whose different contours permitted more conventional nocation-that is, with an initial quaternaria-see Ex. Id.

[^117]:    15. See Friedrich Gennrich, Bibliograpbie der altesten französiscben mad lateiniscben Motetten, Summa Musicae Medii Aevi, 2 (Langen bei Frankfurr, 1957), 35f. For faccimiles of the clausula and chree of the morex, see Tbe Now Grove 12: 622f. (figs. 1-4).
    16. Sanders, "Medieval Moret," so8f. In view of the thinking that led to Franconian nocation, the clausula and the syllable stroke became unnecessary and were no longer discussed in the treatises written after cthat of Anonymous IV, excepe by the Sc.-Emmeram Anonymous, who in his discress ar some of the new rendencies clung to many of Gariandia's formulations.
[^118]:    A reasonable chronology of treatises presumably written in the eighth decade of the thirteenth century an be founded on the following considerations. First, the fact that Anonymous IV mentions Franco of Cologne does not warrant the conclusion (see Anderson, Review of Reckow, Die Copula, in Music and Letters 54 [1973]: 455) that the latter wrore his rrearise before the former finished his. In fact, the only informative passage regarding Franco in the anonymous treatise states that he and someone else "had begun, each in his way, to nocate differendy in their books of music, for which reason they eaught ocher special rules appropriate to their books" (see Reckow, Der Mwsiktraktat, 1: 46; with one exceprion-namely, Boerhius-Anonymous IV refers to a book of music when he writes liber). Nothing indicates that Franco had already written his creatise; that he had yet to do so is made more likely by Anonymous IV's use of iractatus, a word that always refers to a trearise that did exist (i.e., Garlandia's De mensurabili musica).

    Second, there is no compelling evidence to sustain the argument (see Anderson, ibid.) that Lambertus wroce his trearise only after Franco's had become known. Third, so late a dace as Wolf Frobenius assigns to the treatise by Anonymous IV is quire unnecessary ("Zur Datierung von Francos Ars cantus mensurabilis," Archiv für Musikwissenschaft 27 (1970]: 122-27, specifically 124), since (a) the Sc.-Emmeram Anonymous might have known the Englishman's treatise; (b) the Paris version of Garlandia's treatise is likely to have originared well before the last quarter of the thirteenth century, when Jerome of Moravia must have copied it, perhaps in the 12605 ; and (c) other crearises, now lost, may well have contained an explication of ordo in the thythmic modes (see Reimer, 1: 3I).

    Hence, the treatises may be dared as follows: Anonymous IV, 1273 or shorty chereafter; Lambertus, a year or a few years before 1279; St.-Emmeram Anonymous, November 23, 1279; Franco, c. 1280 (see Frobenius). The latest stage of nocation, that of Petrus Picardus, represented in Jerome of Moravia's treatise allows the dating of the latter as c. 1290 . For a different approach to this issue, see Kenneth Levy, " $\mathbf{A}$ Dominionn Organum Duplum," Jowrnal of the Anzerican Musicological Society 27 (1974): 184, n. 3. 17. That is, those versions-mostly in $\mathrm{W}_{1}$-that seem oldest from the point of view of sryle.

[^119]:    18. Frieder Zaminer, Der Vatikanische Organkm-Traktat (Ortob. Lar. 3025), Münchner Veröfentlichungen zur Musikgexhichre, 2 (Munich, 1959), 33ff., 88ff., and especially 159. The Norre Dame closing formula singled out above appears among its examples (e.g., Nos. 45 and 308 ).
    19. It also occurs quire frequencly in the organa, where the final pes is quite rare, though it constirutes thisteen percent of the concluding ligarures in the examples.
    20. Similarly, the numerous binariac in the duplum at ends of phrases involving sylable change in $\mathbf{W}_{1}$ organa can almost always be demonscrated to be clearer chan any conjectural alternative for che nocation. In fact, the rare subscixution of two yingae for a final binaria (e.g., domi(n*s) in M $t$; see Waite, 70 ) seems clumsy and gestalthos in che original noration.
    21. The question as to wherther the manuscripe is an autograph (see Zaminer, 32-33) is of no consequence in this concext.
    22. Some of its repertory is thought by Zarniner (pp. $14^{8}$ and 150 ) to be related to che cradition represented by the Vatican Organum Treacise.
[^120]:    23. In both manuscripes the division lines were added after rext and music had been written (see Petet Wagner, Die Gesange der Jakobusliturgie zu Santiago de Compostela, Collectanea Friburgensia: Verôfentlichungen der Universirat Freiburg [Schweiz], Neue Folge, no. 20 [Freiburg, 1931], 112, n.1; Sarah Fuller,
    "Aquitanian Polyphony of the Eleventh and Twelfth Centuries" [Ph.D. diss., University of California, Berkeley, 1970), 331, n. 33).
    24. See Wulf Arlt, "Peripherie und Zentrum," Formm Musicologicum I (1974): 169-222.
    25. Occasionally they are omitred in such later sources as the Vatican Organum Treatise and the Magnus liber organi. In nearly all those cases in $W_{1}$, Waite's cranscription requires the singer of the duplum to break the final ligature of a passage, except in the rare instances of the edicorial addition of a scroke followed by a sec-ond-mode appoggiatura; see, for inscance, Waire, 190: (Aw)di filia in M 37.
    26. Karp's categorical systemization (p. 147f.) of thythm in twelfth-centuty polyphony seems too speculative and insufficiently supported by evidence (see Fuller's critique, 321 ff.). The controversial subject of the thychmic organization, if any, of polyphony before the Magmus liber orgoni cannot be dealt with here.

    Ex. 11 is very similar to the discant serting of mea in M 54 ( $W_{1}$, fol. 40v [34v]; see Plate IV). Roesner's identificacion of the latter passage as modern (p. 370) reses on an interprecation of the strokes that seems to me to be quite inapplicable; it leads him to ascribe to it a quasi-hocket technique, which is anachronistic and by no means inevitably warranted by the notation.

[^121]:    27. Rudolf von Ficker, "Probleme der modalen Notation," Asta Mwsicologica 18-19 (1946-47): 12 ff . Ficker's observation preceded boch Bukofzer and Karp (see nn. 9 and 10 above).
    The early practice of successive nocation-that is, of notaring polyphony by writing the counterpoint after the cantus prise factus and equipping it with the text of a separare stanza (see Fuller, "Hidden Polyphony- $\Lambda$ Reappraisal," Joursal of the American Musicological Society 24 [1971]: 169-92), in no way contradicts the conceprual process posited here. In her disseration Fuller had written that "reading from successive noration, the singer of the lower voice cannot instancly rell if the upper voice has a large melisma against one nore of his, as be can in scone notation, or if three notes in his part are to be synchronized with five in the other" ("Aquitanian Polyphony," 119). But the manuscripts, regardless of whether their polyphony is norated successively (as is also the case with the double mocets in $\mathbf{F}$ and $\mathrm{W}_{2}$ ) or by superimposition ("in score"), provide very little information for performance, coordination is left to him who "knows the score." Fuller's deletion from her arricle ("Hidden Polyphony," 174) of the clause iralicized by me seetns to indicate that she must have reached the same conclusion. Not even the syllabis three-voiced candilenae composed in fourteenth-century England were writen as precisely aligned scores, even though many of them were conceived apparently from the outser in three-part harmony, are chordal in rexture, and have rhychms paralleling those of the poerry.
    28. See also Karp, 191.
    29. Ibid., 144.
    30. Sanders, "Consonance and Rhythm," 272, Ex. 1.
[^122]:    31. F-Pn lac. 3549, fol. 149ff.; F-Pn lat. 3719, fol. 16vff. and 54ff; GB-Lbm Add. 3688 I , fol. 5 vff.
    32. It may be apposite to mention the analogous practice of many modern editors of vocal music to bearn groups of two or more notes (eighth notes, sixteenth nores, exc.) for the sake of convenience and clarity, even if their rendition requires the pronunciation of more than one syllable.
    33. These considerations therefore strengthen the improbability of the curious noncoincident syllabication evidently envisioned by Bukofzer (p. 236), hesitantly preferred by Karp (p. 1 jo; bur see n. 34 below), and prescribed by Heinrich Husmann (see Cbristie dei formea and spiramen in his transcription of che Kyrie Canctipotens from the Codex Calixtinus in Die mirselalterliche Mebrstiminigheir [Das Musikwerk, vol. 9], 15; with manifest inconsistency he chose the disconant appoggiatura in his transcription of (confire)mint in the organum Her dies from the Magmes liber orgami in the same volume, 20). In my review of Flocringer's Der Discantuchatz (Die Musikforshbag 25 [1972]: 338-42), I suill adihered to the same view (p. 341).
    34. For example, Floczinger, i6s; Ian D. Bent, "A New Polyphonic 'Verbum Bonum et Suave.' "Mesic and Lefrers 31 (1970): 238; Margaret Bent's edition of a fourteenth-cencury English seeting of Gaude virgo in the Music Supplement for Early Music, 1/3 (1973), see the percinent note; my edicion of Prima mandi from GB-Lbm Add. 36881 in Scernfeld, 96; Wulf Artt and Max Hass, "Pariser modale Mehrstimmigkeir in einem Fragment der Basler Universitatsbibliothek," Forwm Musicologicum I (1974): 247; Karp, "Text Underlay and Rhythric Interpretation of 1 ath Century Polyphony," Report of tbe Elewntb Congress of ibe Intomational Musicalogical Society, Copenhagen 1972 (Copenhagen, 1974),2: 483). As early as 1958 Gilbert Reaney had sug-
[^123]:    gested the existence of similar situations in the conductus repertory ("A Nore on Conductus Rhythm," Berichs über den siebenten Internationalen Musikwissenschaftlichen Kongress, Köln [Kassel, 1959], 219-21). His reference to a St. Victor conduccus, however, is inappropriate, since rexred passages immediately following che excerpt given in his Ex. 3 contain imperfect ligatures, ligatures which must cherefore be performed with the first nore on the bear. Referring to him es well as to ochers, Karp some years later (in "Text Underlay," cited above in this nore) gave oches conducrus passages and adduced a rule from the treatise of Anonymous IV in support of the melismatic interpretation of upper-voice binariar in syllabic context. But the pertinent context and wording in this section of the treatise leave no doubt that the rules concern discantus cum litstra (i.e., morets), insofar as chey demonstrate the didactic process of equating (redwrers) the nores and thythrms of this novel syllabic polyphony to constellations familiar from the ligature notation of melismatic discant.
    39. Higinio Angles, "De cantu organico: Tratado de un autor caralán del siglo XIV," Anuario musical 13 (1998): 19. I thank Clovis Lark for bringing this document to my artention as well as for spurring me to reexamine the ureaise by "Dietricus" (see n. 7 above).
    36. $\mathrm{W}_{1}$, fol. 95 (86); LOA, fol. 86 vv ; F fol. 201; Ma, fol. 11 iv ; $\mathrm{W}_{2}$, fol. 3 I .
    37. Such passages, which are not so rare as one mighe expect, clearly convey implications for performance (rempo and dynamia).
    38. Arlt, 181-82, 186-87, 200ff., 206, 207, 209ff., and 22If. Despite his infinirely careful workmanship. Ark occasionally bases conclusions on what appear to be inconsistent interpretations of the evidence. For instance, his statement (p. 210) that a certain passage consiscs of a chain of thirds requires the assignment of structural concrapuntal weight to the last nore of one ligature and to the first note of the next. In another case ( P .209 ), such function is assigned to all but two of the first notes of ligatures and, in addition, once to the penultimate nore of a five-nore ligature. (The exceprions are disconances.) That middle noces of ligarures should have such significance seems most unlikely.
    39. Ibid., 21 I.
    40. For the mose tecent discussion of this work, see Fuller, "Theoretical Foundations of Early Organum Theory," Asta Masicologica 53 (1981): 52-84, specifically 67-73.

[^124]:    41. For a more extensive discussion, see Sanders, "Medieval Mocet," 322-23.
    42. When viewed in this light, Garlandia's assertion, as phrased in the generally very trustworthy Bruges version, that "figura aliquando ponirur sine litera et aliquando cum littera; sine littera ut in caudis er conductis, cum listera ut in mocellis" (Reimer, 1: 44) quire plausibly may be understood us iacet and not as referring only to the caudae of conducti. Reimer bases his assertion to the concrary ( $2: 31, n, 30$ ) on his edition of this sentence from the Vatican version, which he presumably inrerpreed in the lighe of the analogous, bue modiGed, saremenes by Garlandia's successors. Even chey, however, concinue ro associare specifically only the moret with the caregory cum litera, though withholding the conductus from the opposite category. Anonymous IV's elliprical remark that nores "sine lirera coniungunnur in quantum possunt vel pocerunt; cum litera quandoque sic, quandoque non" (Reckow, 1: 45) may also reflect the concepeual and notational changes associared with the rise of the moret.
[^125]:    43. In an article published after the completion of this paper Leo Treitler suggests hiscorical, sysrematic, and phenomenological aspects of such stages in the development and uses of notation ("Oral, Written and Literate Process in the Transmission of Medieval Music," Speculum 96 [1981]: 471-91).
    44. This observation still applies to the Magnus liber argani (see Sanders, "Consonance and Rhythm," 272ff.).
    45. "Prescriptive and Descriptive Music-Writing," The Musical Quarterly 44 (1958): 185 ff .
    46. Declamatory propriety, however, concinued to be far from inevitable. As I suggested recendy (Jowmal of the American Musicological Society 33 [1980]: 611), it was only in the course of che fifteenth century that, in beginning to pay increasingly strict attencion to accurate declamarion, composers of polyphonic music gradually propelled it into a new age, in which it was not merely artached to text (or vice versa), but was more integrally bound up with it as an agent of declamation and explication.
[^126]:    19 Hence the line in Peirol's poem: «Emperor, Damietta awaits you....».
    20 Such Biblical allusions were staples, as is also borne out by the pope's reference to Pelagius as Joshua before the walls of Jericho/Damietta.
    21 This differs from Anderson's rendition (Gordon A. Anderson, The Latin Compositions in Fascicules VII and VIII of the Notre Dame Manuscript Wolfenbiuttel Helmstadt. 1099 (I206), part I, p. 59) of «derelicta Babylone» as «with the Holy Land in captivity»; in the same translation into English «the law of Moses» is substituted for «Moses».

[^127]:    36 St. Mark, XV, 17, 20; St. John, XIX, 2, 5.
    37 Wilfred L. Warren, Henrv /I (London, 1973), p. 135.
    38 The Victoria History of the County of Leicester. v. II (1954), pp. 83, 84.
    39 Note also the following two verses in the sequence "Solemne canticum hodie in die sancti Thomæ Martyris» (Missale ad usum insignis et praclara ecclesiae Sarum, ed. F. H. Dickinson, Burntisland, 1861-1863, p. 72): Sed Christi sic in vestigio/ stabant Thomæ pedes recti....
    40 Denis Stevens, "Music in Honor of St. Thomas of Canterbury,» The Musical Quarterly LVI (1970), pp. 339.
    41 I thank the members of my graduate seminar in the Spring of 1982 for their productive collaboration, particularly Barbara Witucki, who compiled a very useful list of datable conductus.

[^128]:    ${ }^{1}$ Hans Spanke dedicated his "St. Martial-Studien: Ein Beitrag zur frühromanischen Metrik," Zeitscbrift für französische Sprache und Literatur, LIV (1931), 282-317, 385-422, "Dem Andenken Friedrich Ludwigs, des Grossen, Unvergesslichen." For a summary of Ludwig's stature, see David Hiley's brief article in The New Grove Dictionary, XI, 307-308.
    ${ }^{2}$ See the obituaries listed in Hiley, "Ludwig," p. 308.
    ${ }^{3}$ The numerous quotations from thirteenth-century treatises given below show that for medieval writers conductus was a noun of the second declension; see also Fritz Reckow, "Conductus," Handwörterbuch der musikaliscben Terminologie, ed. Hans Heinrich Eggebrecht (Wiesbaden, 1973).

[^129]:    ${ }^{4}$ See Burkhard Kippenberg, Der Rhytbmus im Minnesang: Eine Kritik der literar- und musikbistoriscben Forscbung mit einer Übersicbt über die Musikaliscben Quellen, Münchener Texte und Untersuchungen zur deutschen Literatur des Mittelalters, 3 (Munich, 1962).
    s "Mode and Change of Mode in Notre-Dame Conductus," Acta musicologica, XL (1968), 92-114; "The Rhythm of cum littera Sections of Polyphonic Conductus in Mensural Sources," this Journal, XXVI (1973), 288-304; "The Rhythm of the Monophonic Conductus in the Florence Manuscript As Indicated in Parallel Sources in Mensural Notation," this Journal, XXXI (1978), 480-89.

[^130]:    ${ }^{\circ}$ Friedrich Ludwig, "Studien über die Geschichte der mehrstimmigen Musik im Mittelalter, II, Die so Beispiele Coussemaker's aus der Handschrift von Montpellier," Sammelbände der Internationalen Musik-Gesellschaft, V (1904), 184; idem, "Die Aufgaben der Forschung auf dem Gebiete der mittelalterlichen Musikgeschichte," Beilage zur [Münchener] Allgemeinen Zeitung, nos. 13 and 14 (1906), 99 (where Hugo Riemann is credited with the first articulation of this "correct principle") and 107.
    ? Published in Jacques Chailley's "Quel est lauteur de la 'théorie modale' dite de Beck-Aubry?" Archiv für Murikwisenschaft, X (1953), 213-22; in a passage on p. 220, Ludwig specifically mentions the role played by poetic meter in the recognition of modal rhythm in motets and, therefore ( p .221 ), in the monophonic settings of poetry "in the vernacular languages," as well as in Latin poetry (p. 216).

    8 "Zur 'modalen Interpretation' von Melodien des 12 . und 13 . Jahrhunderts," Zeitscbrift der Internationalen Musikgesellschaft, XI (1910), 379-82, specifically p. 380.
    ${ }^{9}$ Repertorium organorum recentioris et motetorum vetustissimi stili, 1, Catalogue raisonné der Quellen (Halle, 1910), 54-56: "Für die prinzipielle Lösung der Frage der Übertragung auch grosser Partien des französischen ist. Repertoires des i2. und is. Jahrhunderts im Sinn der 'modalen Interpretation' . . ." (p. 56).
    ${ }^{10}$ The earliest mention of this fact in this context occurs in Ludwig's "Die Aufgaben," Pp. 107-108. See also Heinrich Husmann, "Zur Grundlegung der musikalischen Rhythmik des mittellateinischen Liedes," Arcbiv für Musikwissenscbaft, IX (1952), 3-26.
    "The first to exploit this feature was Manfred F. Bukofzer in his "Rhythm and Meter in the Notre-Dame Conductus," Bulletin of the American Musicological Society, XI-XII-XIII (1948), 63-65, an abstract of a paper read in 1946. But the priority of its observation was Jacques Handschin's; see his "Zur Frage der Conductus-Rhythmik," Acta musicologica, XXIV (1952), 113 . See also Husmann, "Zur Grundlegung."

[^131]:    ${ }^{19}$ Ibid., p. 44.
    ${ }^{20} \mathrm{Ibid}$., p. 5 1. Both passages are cited in accordance with MS Brugge, Stadsbibliotheek, 528 . The chapters generally regarded as inauthentic are here left out of account. In any case, the conductus is there mentioned only in connection with ornamentation, including voice exchange.
    ${ }^{21}$ The clausula presumably quoted by Garlandia (Reimer, Garlandia, p. 41) failed* to be included in the clausula and discant repertoire preserved in the extant Notre Dame sources. In view of its advanced style, which allows it to be dated near 1240 (see Yvonne Rokseth, Polyphonies du XIIIe siècle: Le Manuscript H 196 de la Faculté de Médecine de Montpellier, IV, Etude et commentaires [Paris, 1939], 140), it may not yet have been available to the scribe of MS F (Florence, Biblioteca Medicea-Laurenziana, Pluteus 29.1).
    ${ }^{22}$ E.g., Erich Reimer, ed., Jobannes de Garlandia: De mensurabili musica, Kritische Edition mit Kommentar und Interpretation der Notationslebre; II, Kommentar und Interpretation der Notationslebre, Beihefte zum Archiv für Musikwissenschaft, if (Wiesbaden, 1972), 14 and 51, n. 30.

[^132]:    ${ }^{23}$ In quite a few cases such an interpretation would lead to the sort of transcription made plausible, at least for some conducti, by Gilbert Reaney's "A Note on Conductus Rhythm," Bericht über den siebenten internationalen musikwissenschaftlichen Kongress Köln 1958, ed. Gerald Abraham et al. (Kassel, 1959), pp. 219-2 I. See, in this connection, the references to the practice of reduction, p. 449 and n .52 below.
    ${ }^{24}$ See Ernest H. Sanders, "Consonance and Rhythm in the Organum of the 12 th and 13 th Centuries," this Journal, XXXIII (1980), 266, n. 2.
    ${ }^{25}$ Simon M. Cserba, ed., Hieronvmus de Moravia, O.P. Tractatus de musica, Freiburger Studien zur Musikwissenschaft, ser. 2, (Regensburg, 1935), p. 190; Edmond de Coussemaker, Scriptorum de musica medii aevi: Novam seriem a Gerbertina alteram, I (Paris, 1864; repr. Hildesheim, 1963 ), 95.
    ${ }^{26}$ Cserba, ed., Hieronymus de Moravia, p. 193; Coussemaker, Scriptorum, p. 96.
    ${ }^{27}$ See Jacques Handschin's discussion in "Notizen über die Notre-Dame-Conductus," Bericht über den I. musikwissenschaftlichen Kongress der deutscben Musikgesellscbaft in Leipzig (Leipzig, 1926), p. 209.

[^133]:    ${ }^{28}$ Fritz Reckow, ed., Der Musiktraktat des Anonymus 4, I, Edition, Beihefte zum Archiv für Musikwissenschaft, 4 (Wiesbaden, 1967), 46, 82.
    ${ }^{29}$ Ibid., p. 60: "Sed nota, quod organistae utuntur in libris suis quinque regulis, sed in tenoribus discantuum quatuor tantum, quia semper tenor solebat sumi ex cantu ecclesiastico notato quatuor regulis etc. Sunt quidam alii . . . [qui] faciunt semper quinque, sive procedunt per modum discantus sive non, ut patet inter conductos.
    ${ }^{30}$ Ibid., pp. 70-71. I read universale for universales on p. 71, line 2.
    ${ }^{31}$ Ibid., pp. 82 and 94 , n. 42.
    ${ }^{32}$ See p. 443 above.
    ${ }^{33}$ Coussemaker, Scriptorum, p. 269.

[^134]:    ${ }^{34}$ Heinrich Sowa, Ein anonymer glossierter Mensuraltraktat 1279 (Kassel, 1930). See pp. 448-49 below.
    " Franco of Cologne, Ars cantus mensurabilis, ed. Gilbert Reaney and André Gilles, Corpus scriptorum de musica, 18 ( $[$ Rome, ] 1974), pp. 69, 73-74.
    ${ }^{36}$ Both genres are called species of discant. This inclusive view of discant is specifically Franconian. Those authors of the first half of the fourteenth century who continue to present it all derived it from Franco. In England all discant treatises of the fourteenth and fifteenth centuries considered discant as elaboration of a cantus planus. See Ernest H. Sanders, "Cantilena and Discant in 14th-Century England," Musica disciplina, XIX (1965), 31, n. 74.
    ${ }^{37}$ Walter Odington, Summa de speculatione musicae, ed. Frederick F. Hammond, Corpus scriptorum de musica, 14 ([Rome,] 1970), pp. 139-40, 142; Coussemaker, Scriptorum, pp. 245, 247.
    ${ }^{38}$ Ernst Rohloff, ed., Der Musiktraktat des Jobannes de Grocheo, nach den Quellen neu berausgegeben mit Übersetzung ins Deutsche und Revisionsbericht, Media latinitas musica, 2 (Leipzig, 1943), pp. 47, 56, 57; idem, ed., Die Quellenbandscbriften zum Musiktraktat des Jobannes de Grocheio: Im Faksimile berausgegeben nebst Übertragung des Textes und Übersetzung ins Deutsche, dazu Bericht, Literaturscbau, Tabellen und Indices (Leipzig, 1972), pp. 124, 144, 146.

[^135]:    ${ }^{39}$ Rohloff, ed., Der Musiktraktat, p. 50; and idem, ed., Die Quellenbandscbriften, p. 130. On the cantus coronatus, see Hendrik van der Werf, "Cantus coronatus," especially Exkurs 2, Handwörterbuch der musikalischen Terminologie, ed. Hans Heinrich Eggebrecht (Wiesbaden, 1983), pp. 7-8.
    ${ }^{40}$ See Pp. 444-45 above.
    ${ }^{41}$ See p. 443 above.
    ${ }^{42}$ Reimer, Garlandia, I, 63.
    ${ }^{43}$ For the applicable meanings of nomen, see Novum glossarium mediae latinitatis ab anno DCCC usque ad annum MCC, [VII], ed. Franz Blatt ([Copenhagen], 1967), cols. 1330-44.
    ${ }^{44}$ Reckow, Der Musiktraktat des Anonymus 4, I, 45, 48, 53.

[^136]:    ${ }^{45}$ Coussemaker, Scriptorum, p. 269.
    ${ }^{46}$ Ibid., pp. 273-75.
    ${ }^{47}$ Sowa, Ein anonymer, pp. 60-61, 80, 85 .
    ${ }^{48}$ Ibid., p. 14.
    ${ }^{49}$ Ibid., p. 59. One can imagine the following conversation: "A binaria imperfecta is a ternaria perfecta (e.g., 4 ) from which the last note has been separated. A descending binaria imperfecta is therefore written like this: ." "But that looks like a binaria perfecta. How can one tell the difference?" "The context should make it clear." "But that's just the sort of approach we want to get away from. I propose that it be written as an incomplete porrectus: 1 ." "Oh, but what an unnatural, illegitimate, and ugly note symbol!"
    ${ }^{30}$ Ibid., p. $7^{2}$.
    ${ }^{51}$ See Reimer, Garlandia, I, 63 and nn. 7 and 9.

[^137]:    ${ }^{52}$ See $\mathbf{n} .23$ above. This notion of "reduction," elaborately described by Anonymous IV (Reckow, ed., Der Musiktraktat des Anonymus 4, I, 48-49, $5^{1}$ ), was first reported by Garlandia (Reimer, Garlandia, I, 63 : "Item omnis figura non ligata debet reduci ad figuram compositam per aequipollentiam"). The anonymous author adds an important qualification, however: "Et ratione diversitatis sillabarum secundum aliquos quilibet punctus absolutus dicitur, prout non reducitur ad figuram ligatam" (Reckow, ed., Der Musiktraktat des Anonymus 4, I, 48). ("But according to some [presumably the older musicians] any single note, because of the separateness of the syllables, is called an independent note, inasmuch as it is not combined with any ligature.") Such a note could not have a value of less than a ternary long.
    ${ }^{53}$ See Wolf Frobenius, "Modus (Rhythmuslehre)," Handwörterbuch der musikaliscben Terminologie, ed. Hans Heinrich Eggebrecht (Wiesbaden, 1974).
    ${ }^{54}$ See Ernest H. Sanders, "The Question of Perotin's Oeuvre and Dates," Festschrift Walter Wiora zum 30. Dezember 1966, ed. Ludwig Finscher and ChristophHellmut Mahling (Kassel, 1967), p. 243 ff.; and idem, "Style and Technique in Datable Polyphonic Notre-Dame Conductus," Gordon Athol Anderson (1929-198i) In Memoriam, von seinen Studenten, Freunden und Kollegen, Musicological Studies, 39 (Henryville, Pa., 1984), p. 510 . The arguments presented in the former article in 1967 evidently have not been challenged or disproved. Nonetheless, the view that the six rhythmic modes were standardized "by Perotin in Paris during the last two decades of the twelfth century" (Hans Tischler, ed., The Montpellier Codex, I, Critical Commentary, Fascicles I and 2, Recent Researches in the Music of the Middle Ages and Early Renaissance, 2-3 [Madison, 1978], xxxii) continues to be offered without any

[^138]:    countervailing arguments in support of it. There is no practical or theoretical evidence showing the existence or need of a rhythmic modal taxonomy before some time in the first decade of the thirteenth century, when, evidently, the second mode came into being. At that time, or some time thereafter, the familiar motion in breves came to be called sixth mode, and the pattern si $3 l i$ began to receive the rhythmic interpretation known as third mode, in contrast to the premodal way it used to be performed, which persisted for some time as a less and less acceptable alternative, an "alternate third mode," as it were. See the two references cited at the end of $n .57$ below.
    ss See p. 444 above.
    ${ }^{56}$ See Reckow, ed., Der Musiktraktat des Anonymus 4, I, 98.
    ${ }^{57} \mathrm{Ibid}$., pp. 46, 32. The resulting style is briefly described in the Discantus positio vulgaris; see Ernest H. Sanders, "Duple Rhythm and Alternate Third Mode in the ${ }^{13}$ th Century," this Journal, XV (1962), 282-83; and idem, "Consonance and Rhythm," pp. 266-67 and 276, n. 36 .
    ${ }^{58}$ Garlandia, II, $52,53$.
    ${ }^{54}$ Ibid., I, 54 .
    ${ }^{60}$ Reckow, ed., Der Musiktraktat des Anonymus 4, I, 22 ff., 43-44.

[^139]:    ${ }^{61}$ Cf. Reimer, Garlandia, II, 53. Neither $W_{1}$ nor $F$, both written in the 1240 s (except for the addenda to the latter), contains differentiated single notes. Although $W_{1}$ is usually dated into the last quarter of the thirteenth century-most recently by Hans Tischler, "The Evolution of the Magnus liber organi," The Musical Quarterly, LXX (1984), 168-the most reliable, reasonable, and authentic date established by Julian Brown, Sonia Patterson, and David Hiley, "Further Observations on Wi," Journal of the Plainsong \& Mediaeval Music Society, IV (1981), 53-80, should no longer be disregarded.
    ${ }^{62}$ See p. 447 above. Hence, his well-known remark that ir his day one could learn in one hour what used to take seven (Reckow, ed., Der Musiktraktat des Anonymus 4, I, 50).
    ${ }^{63}$ Sowa, Ein anonymer, p. 73. His ambivalence is strikingly highlighted by the fact that this statement follows his strict description of modes as a ligature notation (see p. $44^{8}$ above) and is, in turn, followed some pages later by the remark that "quia figura composita in hac arte dignior est et generalior quam sit simplex-nam simplices, ut supra patuit, sunt ad compositas reducende, tamquam pars ad totum-ideo patet ordo" ("because in this practice ligatures clearly rank higher and are more general than single notes-for single notes, as was explained above, have to be reduced to ligatures, as a part to the whole-therefore the arrangement is obvious").

[^140]:    ${ }^{64}$ Hans Müller, Eine Abbandlung über Mensuralmusik in der Karlsruber Handscbrift St. Peter pergamen. 29a, Mittheilungen aus der Grossherzoglich Badischen Hof- und Landesbibliothek und Münzsammlung, 6 (Leipzig, 1886), p. 5. Characteristically, they are not given as conventional modal phrases but as feet, i.e., as units of imperfect modes (e.g., not LBLBL I but LBLB).
    ${ }^{65}$ Coussemaker, Scriptorum, pp. 279-81. His ninth mode (groups of three semibreves) cannot be ligated.
    ${ }^{66}$ lbid., p. 2 38; Franco of Cologne, Ars cantus mensurabilis, ed. Reaney and Gilles, Corpus scriptorum de musica, $18, \mathrm{pp} .26 \mathrm{ff}$.
    ${ }^{67}$ Coussemaker, Scriptorum, pp. 244-45; Franco of Cologne, Ars cantus mensurabilis, ed. Reaney and Gilles, Corpus scriptorum de musica, 18, pp. 60 ff .
    ${ }^{68}$ Regarding this statement and some of the foregoing conclusions, also see Ernest H. Sanders, "Continuity in English Music," communication in Music do Letters, XLVII (1966), 188-89. For the traditional concept of the modi motellorum or mothetorum, see Frobenius, "Modus (Rhythmuslehre)," p. 3.

    69 Janet Knapp, "Conductus," The New Grove Dictionary, IV, 653.
    ${ }^{70}$ See p. 446 above and n. 35. The author of the later part of the Discantus positio vulgaris may or may not be understood to regard conductus as a kind of discant, depending on whether his use of the word alius is translated as either "something else" (i.e., "different from [discant]") or "another" (i.e., "another [kind of discant]"). The latter translation is probably preferable. But in any case, the designation of conductus as a kind of discant seems not to have occurred before the $\mathbf{1 2 7 0 s}$. The older part of the treatise sets organum and conductus apart from discantus. See p. 444 above.
    ${ }^{71}$ See p. 443 above.
    ${ }^{72}$ See Reimer, Garlandia, I, 76.

[^141]:    ${ }^{73}$ Ibid., p. 95.
    ${ }^{74}$ Ibid., p. 88. For a complete translation of this chapter, see Sanders, "Consonance and Rhythm," p. 283.
    ${ }^{15}$ See n. 29 above.
    ${ }^{76}$ See Sanders, "Consonance and Rhythm," p. 279, n. 46.
    "Coussemaker, Scriptorum, p. 238; Odington, Summa de speculatione musicae, ed. Hammond, Corpus scriptorum de musica, 14, p. 131.
    ${ }^{78}$ See Sanders, "Style and Technique," pp. 505 ff .

[^142]:    ${ }^{79}$ Peter Andraschke, "Die Retuschen Gustav Mahlers an der 7. Symphonie von Franz Schubert," Archiv für Musikwissenschaft, XXXII (1975), 107-108.
    ${ }^{80}$ One might as well equate the harmony of Fidelio and Parsifal. Handschin had more than once called for consideration of the chronological Scbicbtung of the repertoire, e.g., "Conductus-Spicilegien," Archiv für Musikwisenschaft, IX (1952), 107-13.
    ${ }^{81}$ Heidelberg, Universitätsbibliothek, 2588; Rome, Convento di Santa Sabina, Biblioteca della Curia Generalizia dei Domenicani, XIV L 3; Darmstadt, Hessische Landes- und Hochschulbibliothek, 347; Paris, Bibliothèque Nationale, Fonds français, 146; Burgos, Monasterio de Las Huelgas.
    ${ }^{82}$ Sanders, "Style and Technique," pp. 517-18. Crucifigat omnes represents a foolproof case, since it is a texted version of the final cauda of another conductus.
    ${ }^{83}$ Manifest misunderstanding or-less likely-disregard of pre-Garlandian models occurs, for instance, in Columbe simplicitas ("fel horret malicie turturis"), Quod promisit ("munda caro"), Parit preter morem ("retinens verum dei decorem," "deitatis sue deus honorem," and "qui struit non destruit"), Flos de spina procreatur ("stillant montes colles fluunt"), Nulli beneficium ("te pastorem"), 0 varium fortune ("lubricum"), Clavus pungens (several passages), etc. The one motet in Sab exhibits meticulous mensural notation. But to the extent (if any) that the conducti in that source may be said to be mensurally notated, they certainly do not show modal rhythm. All kinds of

[^143]:    adjustments to the modal system are necessary to call the rhythms of any of these conducti modal-and Husmann is often inclined to make them. See "Ein Faszikel Notre-Dame-Kompositionen auf Texte des Pariser Kanzlers Philipp in einer Dominikanerhandschrift (Rom, Santa Sabina XIV L 3)," Archiv für Musikwissenschaft, XXIV (1967), 1-23.
    ${ }^{84}$ In addition to Crucifigat omnes they are Bulla fulminante and Minor natu filius. Anima iugi, somewhat loosely referred to as a newly texted version of the cauda of another conductus in Sanders, "Style and Technique," p. 505, is actually a unique case of the conversion of the three successive stanzas of a monophonic conductus into a double motet on a separately texted tenor (see Schrade, "Unknown Motets," pp. 404-12). It is hard to believe that this composition was not conceived à double emploi from the outset.
    ${ }^{85}$ See $n$. 11 above.
    ${ }^{86}$ Cf. Handschin, "Zur Frage der Conductus-Rhythmik," pp. 113-30.

[^144]:    ${ }^{87}$ See Sanders, "Duple Rhythm," pp. 263 ff.

[^145]:    ${ }^{88}$ Transcribed in Polyphonic Music of the Fourteenth Century, XIV, English Music of the Thirteenth and Early Fourteenth Centuries, ed. Ernest H. Sanders (Monaco, 1979),
    
    ${ }^{89}$ Transcribed ibid., pp. 189-90, 188, 191, 192.

[^146]:    ${ }^{90}$ Transcribed ibid., pp. 195-97.
    ${ }^{91}$ Transcribed ibid., pp. 61-63, 66-68. The sources are relevant because (1) there is quite a bit of evidence that Continental and English musicians knew and appropriated each other's repertoire, (2) the notations are similar, and (3) at the time of the appearance of Johannes de Garlandia's notation, English specimens reveal notational details of significance for both conductus traditions.

[^147]:    ${ }^{92}$ See Heinrich Husmann, "Das Prinzip der Silbenzählung im Lied des zentralen Mittelalters," Die Musikforschung, VI (1953), 8-20.
    ${ }^{93}$ It surely was this view of syllables and words as neutral raw material (within a poetic frame) that allowed them to be shaped in motets, regardless of accent or syntax. There was, of course, bound to be a considerable congruence between the rhythmic pattern of the first mode and the most common accent patterns of Latin. But this is no' more than a congruence (cf. Sanders, "The Medieval Motet," Gattungen der Murik in

[^148]:    Einzeldarstellungen: Gedenkschrift Leo Scbrade, ed. Wulf Arlt, Ernst Lichtenhahn, and Hans Oesch [Bern, 1973], p. 511). Although more frequent in motets of the late thirteenth century, disregard of accentuation-as well as irregular versification-are endemic in the motet from its beginning. It is not surprising that Hugo Riemann's perceptive observation of this feature was roundly criticized by Ludwig; see Hugo Riemann, "Die Beck-Aubry'sche 'modale Interpretation' der Troubadourmelodien," Sammelbände der Internationalen Musikgesellscbaft, XI (1909-10), 583; and Friedrich Ludwig, "Zur 'modalen Interpretation' von Melodien des 12. und 13 . Jahrhunderts," Zeitscbrift der Internationalen Musikgesellschaft, XI (1910), 379 ff.

[^149]:    Figure 7. Florence, Biblioteca MediceaLaurenziana, Pluteus 29.1, fol. $299^{\circ}$

[^150]:    ${ }^{44}$ For the entirely different role and function of poetry in the motet, see Sanders, "The Medieval Motet," p. 528.
    ${ }^{9}$ See Sanders, "Style and Technique," p. 5 io.

[^151]:    ${ }^{96}$ For its genesis, see Dag Norberg, Introduction à l'étude de la versification latine médiévale, Studia latina Stockholmiensia, 5 (Stockholm, 1958), especially pp. 124 ff., 186; Paul Klopsch, Einfübrung in die mittellateiniscbe Verslebre (Darmstadt, 1972), especially pp. 12-13, 19. Particularly significant is Ewald Jammers's "Der Vers der Trobadors und Trouveres und die deutschen Kontrafakten," Medium aevum vivum: Festscbrift für Waltber Bulst, ed. Hans Robert Jauss and Dieter Schaller (Heidelberg, 1960), Pp. 147-60. On pp. 148 ff., he deals insightfully with syllabic versification, referring to psalmody as its preliminary state, raised in effect to a heightened poetic level by rhyme with unvarying accent and by numerically regulated syllable content of the verses.

[^152]:    ${ }^{97}$ Modal rhythm is not metrical rhythm; see Ernest H. Sanders, communication, this Journal, XXXIII (1980), 607; as well as Sanders, "The Medieval Motet," nn. 127 and 128. Much of the Latin cantilena polyphony composed in England in the first half of the fourteenth century is exceptional in its metrical regularity. In a recent article by Ritva Jonsson and Leo Treitler, "Medieval Music and Language: A Reconsideration of the Relationship," Studies in the History of Music, I, Music and Language (New York, 1983), 1-23, the authors take exception to the commonly held view that only in the course of the fifteenth century did composers begin to be concerned with the prosodic and semantic values of text. It is clear, however, that all the musicologists (Brown, Blume, Sanders, and Hoppin) singled out for this view (pp. 2-3) made their comments in the context of the singularly important field of polyphonic composition, while Jonsson's and Treitler's article deals with the musiclanguage relationship in early Latin monophony. It is hard to understand how, for insrance, a comparison of fundamental features of "music" composed in and after the fifteenth century as against "music" composed earlier-in the communication cited at the beginning of this note-could be seen to pertain to anything other than polyphony, the more so as that communication responded to an article concerned only with medieval polyphonic music. But I wonder, especially in view of the common practice of adaptation, whether even Latin monophony (including chants and tropes) is always capable of the sort of carefully shaped analytical demonstration given in Jonsson's and Treitler's article.
    ${ }^{98}$ See Sanders, "Style and Technique," pp. 516-17.
    ${ }^{99}$ See idem, "The Question," p. $24^{8 .}$

[^153]:    ${ }^{100}$ Polyphonic Music of the Fourteentb Century, XIV, xiv; also Sanders, "The Medieval Motet," P. 530, n. 127. Cf. the important remark of Anonymous IV quoted in $\mathbf{n} .52$ above. Both the theoretical and the practical evidence seem to indicate that the tradition in which the virgac were read absolute was succeeded by the practice of reductio; the latter was, in turn, clarified and ultimately superseded by the use of different symbols for single notes of different duration instituted by Johannes de Garlandia. But the notation of the conducti in the "St.-Victor" manuscript (Paris, B.N., lat. 151 39) leaves little doubt that the traditional slow declamation of conductus texts was the rule (with few exceptions) throughout the first half of the thirteenth century.
    ${ }^{101}$ Janet Knapp has recognized the necessity for alternatives to the application of modal rhythm to syllabic portions of conducti. The cases she discusses in "Musical Declamation and Poetic Rhythm in an Early Layer of Notre Dame Conductus," this Journal, XXXII (1979), 386-405, she transcribes isochronously, calling the rhythms those of the fifth mode. The frequent designation by scholars of such declamation as fifth mode is inappropriate, however, since the latter is basically a tenor mode, as Handschin had pointed out on pp. 114-15 and 130 of his 1952 article (see n. 11 above). Less useful is the recurrent use by some modern musicologists of the fourth mode as a rhythmic template to fit the versification of certain conductus poems; Ludwig had excluded it from his modal canon (see p. 440 above). The fourth mode is a purely theoretical construct balancing the third, so as to allow the modal system to be presented as consisting of three pairs of modes. Dietricus observes sensibly and correctly that "tertius [modus constat] ex una longa et sequentibus duabus brevibus. . . . Quartus modus posset esse e converso ex duabus brevibus et sequenti longa, sed non est in usu" (Müller, Eine Abbandlung, p. 5). ("The [pattern of the] third mode is made up of one long followed by two breves. . . . The fourth mode, conversely, could exhibit the sequence of two breves and a subsequent long, but it is not in use.")

[^154]:    ${ }^{102}$ Not by Husmann, however, who saw the prevalence of modal rhythm only beginning in troubadour songs after is8o; see Husmann, "Das Prinzip."
    ${ }^{103}$ His book, an exhaustive investigation of the problems of rhythm in vernacular song of the Middle Ages, is a model of intelligent and rigorous scholarship. It clears the air with impeccable impartiality. Only once does the author allow the impression of passion to break through, when he characterizes-understandably enough-a particularly excessive aspect of Gennrich's "Modaldogma" as monstrous (pp. 23-24). For the relevant articles by Gennrich, see Kippenberg's bibliography.
    ${ }^{104}$ Hendrik van der Werf, Tbe Cbansons of the Troubadours and Trouvères (Utrecht, 1972), Pp. 35-45. There is, of course, no reason to assume that monophony was governed by a rhythmic system; also see Kippenberg, Der Rbythmus im Minnesang, pp. 63 , ioo. Also see the conclusions presented by John Stevens, "The Manuscript Presentation and Notation of Adam de la Halle's Courtly Chansons," Source Materials and the Interpretation of Music: A Memorial Volume to Tburston Dart, ed. Ian Bent (London, 1981), pp. 52-53.
    ${ }^{105}$ For historical surveys of this eighry-year-old issue, see Heinrich Husmann, "Das System der modalen Rhythmik," Archiv für Musikwissenschaft, XI (1954), 2 ff .; "Wailley's article cited in $n .7$ above; and, most authoritatively, Friedrich Gennrich, "Wer ist der Initiator der Modaltheorie?" Miscelánea en bomenaje a Monseñor Higinio Angtés (Barcelona, 1958-6I), pp. 315-30. Actually, Aubry died of a wound, he received in training for his duel with Jean Beck.
    ${ }^{106}$ For those purposes Bryan Gillingham's recently published The Polyphonic Sequences in Codex Wolfenbuettel 677, Musicological Studies, 35 (Henryville, Pa., 1982), should be left out of account.
    ${ }^{107}$ This is still apparent in the conclusion Husmann reached with a seeming tinge of regret in the course of the last of his series of articles concerning rhythm in music of the twelfth and thirteenth centuries ("Das System," p. 31): "Man wird sich also damit

[^155]:    abfinden müssen, dass es Konduktus gibt, die eine Rhythmik besitzen, deren Unregelmässigkeit die Grenzen des der Modalnotation Darstellbaren überschreitet." ("Thus, one will have to come to terms with the fact that there are conductus possessing rhythms that transcend the limits of what modal notation could represent [sic].") Cf. Kippenberg, Der Rbytbmus im Minnesang, pp. 61, 64; William Beare, Latin Verse and European Song: A Study in Accent and Rbytbm (London, 1957), pp. 102, 287 ff. The latter put it that "most Germans . . . cannot accept the idea that there may be a form of verse which is quite free from alternating rhythm" (p. 102)-a statement that, happily, has been rendered invalid by the work of such men as Jammers and Kippenberg, followed by a degree of reorientation on the part of Husmann ("Deklamation und Akzent in der Vertonung mittellateinischer Dichtung," Arcbiv für Musikwisenschaft, XIX/XX [1962/63], 1-8).
    ${ }^{109}$ My special thanks go to Mr. Stanley Weiss, without whose helpful intercessions this article could not have been completed.

[^156]:    ${ }^{1}$ Ernest H. Sanders, "Duple Rhythm and Alternate Third Mode in the 13th Century," Journal of the American Musicological Society 15 (1962): 283-84; "Conductus and Modal Rhythm," ibid., 38 (1985): 467 . For an illuminating treatment of the relationship of music and text in the Middle Ages, see Fritz Reckow, "rectitudo-pulchritudo-enormitas: Spätmittelalterliche Erwägungen zum Verhältnis von materia und cantus," in Musik und Text in der Mehrstimmigkeit des 14. und 15. Jahrhunderts, ed. Ursula Günther and Ludwig Finscher, Göttinger musikwissenschaftliche Arbeiten 10 (Kassel: Bärenreiter, 1984), 1-36.
    ${ }^{2}$ Paul Klopsch, Einführung in die mittellateinische Verslehre (Darmstadt: Wissenschaftiche Buchgesellschaft, 1972), esp. 27-32; John Stevens, Words and Music in the Middle Ages (Cambridge: Cambridge University Press, 1986), 413-23; Margot E. Fassler, "Accent, Meter, and

[^157]:    Rhythm in Medieval Treatises 'De Rithmis'," The Journal of Musicology 5 (1987): 164-90. Twice the latter rightly points to her predecessors' disregard of these authors (166, n. 8, and 173, n. 38). Indeed, William G. Waite merely listed a modern edition (see n. 21 below) in the bibliography of his The Rhythm of Twelfth-Century Music (New Haven: Yale University Press, 1954), 132; Janet Knapp made relatively cursory reference to the same collection in nn. 21 and 22 of her "Musical Declamation and Poetic Rhythm in an Early Layer of Notre Dame Conductus," Journal of the American Musicological Society 32 (1979): 388; and for reasons that remained to be articulated this author chose not to consider them for his 1985 article cited in n. 1 above. Only Sarah A. Fuller gave more consideration to the matter ("Aquitanian Polyphony of the Eleventh and Twelfth Centuries," Ph.D. diss., University of California, Berkeley, 1970, 179-92). Disregard of these treatises is not confined to musicology; they are unmentioned in both Michel Burger's Recherches sur la structure et lorigine des vers romans, Société de publications romanes et françaises 59 (Geneva: Minard, 1957) and Dag Norberg's Introduction à l'érude de la versification latine médiévale, Studia Latina Stockholmiensia 5 (Stockholm: University of Stockholm, distr. by Almquist \& Wiksell, 1958).
    ${ }^{3}$ This is the spelling in most treatises dealing with medieval non-metrical poetry; Klopsch, Einführung, 27-28.
    ${ }^{4}$ Henricus Keil, Grammatici Latini (Leipzig, 1857-80; repr. Hildesheim: Olms, 1961), 6:206-07, and 7:331-32. Victorinus, too, is likely to have been active in the seventh century. While we have no direct evidence-see Bedae Venerabilis Opera, Pars VI, ed. Ch. W. Jones, Corpus Christianorum, Series Latina 123A (Turnhout: Brepols, 1975), XXV—Bernhard Bischoff seems to place both authors in the same time frame, before Bede (ca. 700) and before

[^158]:    "For the original Latin passages see Klopsch, Einführung, 4 and 5. For short samples of Augustinus's poem see Norberg, Introduction, 88 and 137. The entire psalmus is printed (with French translation) in Oeuvres de Saint Augustin, Bibliothèque Augustinienne 28 (Paris: Desclée, 1963), 135-91.
    ${ }^{12}$ Ludwig Rockinger, "Briefsteller und Formelbücher des eilften bis vierzehnten Jahrhunderts," Quellen und Erörterungen zur Bayerischen und deutschen Geschichte, Alte Folge, 9 (Munich: Franz, 1863-64; repr. Munich: Scientia, 1969), 9.
    ${ }^{13}$ Hugh H. Daris, "The 'De rithmis' of Alberic of Monte Cassino: A Critical Edition," Mediaeval Studies 28 (1966): 198-227.
    ${ }^{14}$ Davis, "The 'De rithmis,' "208. This passage is cited and translated by Fassler, "Accent." Her translation of the second sentence ("There are others with a sure and determinate number of syllables in which long and short duration is considered as well") leaves it open to misinterpretation. She also offers one other excerpt and discusses the treatise at some length; cf. 170-72.
    ${ }^{15}$ Not three, as Fassler, "Accent," 171, has it; cf. Davis, "The 'De rithmis,' "218.
    ${ }^{16}$ He calls it "rithmus phaleuticus" (i.e., Phaleucian or Phalaecian), but as Davis points out, this poem "is properly called Sapphic" ("The "De rithmis,' "216). The word "pentasyllable" in that annotation must be corrected to read "hexasyllable."

[^159]:    ${ }^{20}$ Davis, "The 'De rithmis," "212. The irregularity in the poem demonstrating pentasyllabic verse (Davis, 213) is easily removed by reading omnium queque, rather than omniumque que.

[^160]:    ${ }^{11}$ Giovanni Mari, I trattati medievali di ritmica latina (Milan, 1899; repr. Bologna: Forni, 1971), 11-12 (also in Memorie del Reale istituto Lombardo di scienze e lettere, Classe di lettere [Milan: Hoepli, 1899], 373-496). If Walter Map wrote one of the cited poems (see Mari, 12, n. 5) the treatise could not have been written before the second half of the twelfth century, probably its last quarter. (Its definition of rithmus seems to have become traditionally authoritative. As late as ca. 1332 Antonio da Tempo defines rithimus [sic] as "consonans paritas syllabarum certo numero comprehensarum," adding that this definition also applies to vernacular poetry; see his Summa artis rithmich, ed. Giusto Grion in his Delle rime volgari trattato di Antonio da Tempo \{Bologna: Romagnoli, 1869], 71.)

    The meanings of acutus and gravis accentus seem to be the traditional ones. The one passage cited in the Mittellateinisches Wörterbuch, vol. 1, col. 145, for scharfbetonend as the meaning of acutus nonetheless also definitely turns out to use the word to mean "high." The use of haut or bas for high and loud or low and soft instruments evidently came into being in the fourteenth century; see Heinz Becker, "Oboe," in Die Musik in Geschichte und Gegenwart, vol. 9, col. 1788.
    ${ }^{22}$ See Klopsch, Einführung, 38-45; also Meyer, Gesammelte Abhandlungen 2:124.
    ${ }^{23}$ The remainder of the treatise, commented upon at length by Fassler, "Accent," 175-78, deals with the distribution of rhyme patterns within one stanza or over a pair of stanzas. While she does not cite the original Latin passages concerning the interrelation of rhyme and the pronunciation of the last word of a verse, her English paraphrase shows her to perceive accentus as stress "accent or beat." Such accentuation may indeed have been practiced, though no medieval writer specifically refers to it; see n . 19 above. As to her view of this sort of poetry as "suspended . . . upon a stationary grid of accent or beat" (177), see Section III of this paper.

[^161]:    ${ }^{30}$ This apparently tautological sentence shows Garlandia's professional awareness of the transfer of metrical terminology to a different context. It also seems to make clear that the earlier theorists' (especially Alberic's) use of the word producere means a lengthening not beyond normal isochronism, but only in comparison with the shortening of the penult of a proparoxytonic word at the end of a verse.
    ${ }^{3}$ Traugott Lawler, ed., The Parisiana Poetria of John of Garland, Yale Studies in English 182 (New Haven: Yale University Press, 1974), 160; Mari, I trattati, 36. Lawler consistently translates rithmus as "rhymed poem" or "rhymed poetry."
    ${ }^{32}$ In so doing, he therefore does not "jump ahead of himself" (Fassler, "Accent," 182).
    "They will be dealt with presently.

[^162]:    ${ }^{*}$ Lawler, The Parisiana Poetria, 160-61; Mari, I trattati, 37. Tetrasyllabic verses are not part of Alberic's system; see p. 419 above.
    ${ }^{35}$ Lawler, The Parisiana Poetria, 162 and 164; Mari, I trattati, 37. Unlike the more meticulous author of De rithmico dictamine, John applies rhyme only to the last two syllables of verses, even if the last word is proparoxytonic ("iambic").
    ${ }^{3}$ See n .33 above.

[^163]:    "The meaning of the term is analogous to that familiar from psalmody.
    ${ }^{*}$ The sources have vita, as do the two editors.
    ${ }^{3}$ Lawler, The Parisiana Poetria, 164, 170, and 172; Mari, I trattati, 38 and 43-44.
    ${ }^{* 0}$ Lawler, The Parisiana Poetria, 172; Mari, I trattati, 44. Lawler and Fassler, "Accent," 185 ,

[^164]:    ${ }^{4}$ Mari, I trattati, 17. Johannes de Garlandia recognized no rithmi iambici of fewer than seven syllables; see 425 above.
    ${ }^{46}$ Lawler, The Parisiana Poetria, 180; Mari, I trattati, 51.
    In the examples above, the sign "-" under a notehead is intended, like an episema, to indicate an appropriate lengthening.

[^165]:    ${ }^{17}$ Meyer, Gesammelte Abhandlungen 1:183. The original date of publication of this essay was 1882. For similar statements, applicable to "the entire corpus of rhythmic Latin poetry," see idem, 2:8-9.
    ${ }^{48}$ Meyer, Gesammelte Abhandlungen 2:52.
    ${ }^{19}$ Meyer, Gesammelte Abhandlungen 3:12. The original date of this essay was 1906. His use of metrical terms must of course be understood as adapted to rhythmical contexts, i.e., not quantitatively, but "qualitatively" (prose accentuation). Though he does not specifically stress equality of syllables, his references to syllable-counting and his frequent description of rhythmic verses as prose (except for their durationally emphasized cadences) can only be understood as equivalent to syllabism, prose and syllabic poetry being dictions without quantification of their syllabic ingredients.
    ${ }^{50}$ Meyer, Gesammelte Abhandlungen 1:197. See also 174 and 177.
    ${ }^{51}$ Meyer, Gesammelte Abhandlungen 1:179.

[^166]:    ${ }^{52}$ Meyer, Gesammelte Abhandlungen 1:245. According to a note added in 1905, six years after Mari's publication, "one learns nothing new from any of these treatises."
    ${ }^{53}$ Meyer, Gesammelte Abhandlungen 1:185; see also 261-74. As he points out (185-86), it can occur only in verses of more than six syilables.
    ${ }^{4}$ Quite in contrast, Fassler states that "accent and ictus coincided, and sharply marked accentual patterns prevailed"; "The Role of the Parisian Sequence in the Evolution of NotreDame Polyphony," Speculum 62 (1987): 346.
    ${ }^{5 s}$ See $n .49$ above.
    ${ }^{56}$ Norberg, Introduction, 90-91.
    ${ }^{57}$ Norberg, Introduction, 92.
    ${ }^{58}$ Norberg, Introduction, 97.
    ${ }^{59}$ For instance, ". . . plus ou moins exacte" and "dans bien des cas" (Norberg, Introduction, 106); ". . . ne suivent pas ce système d'accentuation" (107); "imitation partielle de structure"

[^167]:    (113, 115, 117); ". . . souvent appliqué . . ." (123). Curiously, in the case of Meyer's (1:224-25) and Norberg's (98) discussions of the same poem-the eleventh-century hymn Mare, fons, os-tium-Norberg erroneously accuses Meyer of falsely mandating for it accentual equivalence to the quantitative meter both regard as being imitated. Meyer, however, had in his subtitle simply identified the classical meter in question; thereafter he meticulously listed all variants by categories, a few of which are cited by Norberg, who here proceeds to adopt Meyer's "to-be-revised" insight by stating that the poets "did not scan such verses, but read them with prose accents." It is bewildering to note this conclusion from an author (albeit in a specific case) who had previously criticized his predecessor for the same conclusion.
    ${ }^{\infty}$ Significantly, in the one extant case of specific metrical designation of a poem by a medieval writer, Alberic of Monte Cassino, the last not to report rhyme, makes a mistake; see n. 16 above.

    Ewald Jammers maintains that the origin of rhythmic poetry lies in the tradition of psalmody, as quantitative principles began to lose force. The factors he adduces are compelling, as is the fact, not mentioned by him, that the earliest known rithmus was called a psalmus by its author (Klopsch, Einfiuhrung, 6 and 39; p 418 above). Moreover, his somewhat intuitive approach turns out to be supported by the testimony of Johannes de Garlandia (see p. 426 above). Though Jammers rejects Norberg's theory of rithmi as imitative derivations from quantitative meters, he credits the adaptation of psalmodic traditions to the frameworks of quantitative poetry for the rise of rithmus; see his Ausgewahle Melodien des Minnesangs: Einfïhrung, Erläuterungen und Cbertragung (Tübingen: Niemeyer, 1963), 36-39 ( $=$ "Der Vers der Trobadors und Trouveres und die deutschen Kontrafakten," in Medium aevum vivum: Festschrift für Walther Bulst, eds. Hans Robert Jauss and Dieter Schaller (Heidelberg: Winter, 1960], 148-50).
    ${ }^{61}$ That is the term Klopsch, Einführung, 61, uses in describing the poetry of Augustinus's Psalmus contra partem Donati. It is interesting that in this context no one comments on the systematic insensitivity of quantitative poetry to prose accentuation.

[^168]:    ${ }^{62}$ Meyer, Gesammelte Abhandlungen 1:224-25. In her recent book Der musikalische Satz der Notre Dame-Conductus, Münchner Veröffentlichungen zur Musikgeschichte 36 (Tutzing: Schneider, 1988), Roswitha Stelzle rightly puts it as a fundamental challenge for scholarship to determine "whether indeed it was the aim of any particular poet to produce a consistent verse rhythm" (185). She perceives the performer's dilemma of having to decide whether to follow a consistent verse pattern and sacrifice "the natural verbal accents" or to reorient oneself in accordance with the natural verbal accents, a dilemma whose unequivocal solution she regards as impossible (186). Even though she deals with poetic structure as "an essential matter, so as to clarify the mutual interaction of poetry and music" (11), in the end she offers no transcriptions, since, as she puts it in the regrettable spirit of editorial renunciation, "the question of the rhythmic identity of a melody must, in any case, remain open" (259).
    ${ }^{63}$ Lawler, The Parisiana Poetria, 161. His translation of the Parisiana poetria, praised as "excellent" by one reviewer, was criticized as "unsatisfactory" by another; see Winthrop Wetherbee in Modern Philology 74 (1977): 399, and Douglas Kelly in Speculum 52 (1977): 708-09. For another translation of this passage see p. 423 above.
    ${ }^{4}$ Lawler, The Parisiana Poetria, 265.
    ${ }^{45}$ For detailed information on Johannes de Garlandia (Anglicus) see Louis J. Paetow, ed., Morale Scolarium of John of Garland, Memoirs of the University of California 4/2, History $1 / 2$ (Berkeley: University Press, 1927), 77-106. The subject of the new rhetoric is treated extensively by Paetow, The Arts Course at Medieval Universities, The University Studies, University of Illinois 3/7 (Urbana-Champaign: University Press, 1910), 70-91.

[^169]:    to The last clause is largely true, though there are exceptions. Fassler, like Lawler, is puzzled by Garlandia's terminology: "The reason he chose to call the pattern long-short 'spondaic' (what would usually be called 'trochaic') remains obscure" ("Accent," 182, n. 7; also "The Role of the Parisian Sequence," 361, n. 46).

    67 "Accent," 182-83.
    ${ }^{\infty}$ Norberg, Introduction, 117.
    © Fassler, "Accent," 183.
    ${ }^{20}$ Ibid., 184.
    ${ }^{71}$ Ibid., 185.
    ${ }^{72}$ Ibid., 186.

[^170]:    ${ }^{45}$ Mari, I trattati, 13 and 37; Lawler, The Parisiana Poetria, 162. Since the first verse of the second stanza of Missus Gabriel also is Verbum bonum et suave, it may be that the same sequence was cited by both authors.
    ${ }^{\text {ss }}$ Cf. Reckow, "rectitudo"; Sanders, "Conductus," 466 and n. 97.
    ${ }^{87}$ Knapp, "Musical Declamation," 400; as to the fifth mode, see Sanders, "Conductus," n. 101.
    ${ }^{84}$ Mari, I trattati, 18.
    *9 Transcriptions by Jacques Handschin in New Oxford History of Music 2 (London: Oxford University Press, 1954), 173-74, and by Wulf Arlt in Ein Festoffizium des Mittelalters aus Beauvais (Cologne: Volk, 1970), Editionsband, 74.
    ${ }^{90}$ Transcriptions by Friedrich Gennrich in Die Kontrafaktur im Liedschaffen des Mittelalters, Summa Musicae Medii Aevi 12 (Langen-bei-Frankfurt: n.p., 1965), 259, and by Arlt, Ein Festoffizium, 156.

[^171]:    ${ }^{1}$ Jacques Handschin, "Conductus-Spiciligien," Archiv fïr Muskwissenschaft9(1952): 115, n. 2.
    ${ }^{92}$ Gordon Anderson, "Notre Dame and Related Conductus-A Catalogue Raisonné," Miscellanea Musicologica 7 (1975): 34 (item R 1).
    ${ }^{3}$ See $n .26$ above.
    ${ }^{4}$ See Lawler, The Parisiana Poetria, 267-68, for the frustration it caused him and others.
    ${ }^{45}$ The most comprehensive and up-to-date discussion of the medieval university is Alan B. Cobban's The Medieval Universities (London: Methuen, 1975); see also Gordon Leff, Paris and Oxford Universities in the Thirteenth and Fourteenth Centuries (New York: Wiley, 1968); still of considerable interest is Paetow, The Arts Course.

    More recently, Christopher Page in an admirable book published after this essay was written (The Owl and The Nightingale [London: Oxford University Press, 1989]) has emphasized that the craft of music (notation, polyphony, rhythm, etc.) was not part of the curriculum in institutions of higher learning (137-54, especially 137-43) and that the title magister was not exclusively applicable to their faculty members, but designated anyone who, by virtue of his learning and expertise, was superior to most others in the exercise and teaching of his craft.

    As regards the dating of the treatise by Anonymous IV as well as the translation of his term abbreviatio as "edition" (151), I refer to the conclusions I reached in 1984 ("Sine littera and Cum littera in Medieval Polyphony," in Music and Civilization: Essays in Honor of Paul Henry Lang, Edmund Strainchamps, Maria R. Maniates, Christopher Hatch, eds. [New York: 1984]): Anonymous IV, 1273 or shortly thereafter (223, n. 16); abbreviatio $=$ abbreviation (216, n. 3).
    ${ }^{*}$ For an enlightening discussion of the coexistence or interrelation of these two branches of musical inquiry see Leo Schrade, "Das propädeutische Ethos in der Musikanschauung des Boethius," in idem, De Scientia Musicae Studia atque Orationes, ed. Ernst Lichtenhahn (Bern: Haupt, 1967), 35-44 (reprinted from Zeitschrift für Geschichte der Erziehung und des Unterrichts 20 [1930]: 179). See also Fritz Reckow's survey "Musica" in Riemann MusikLexikon, Sachteil (Mainz: Schott, 1967), 594-95, and Rebecca Baltzer, "Notre Dame Manuscripts and Their Owners: Lost and Found," Journal of Musicology 5 (1987): 392 and 394-95.

[^172]:    ${ }^{9}$ Paetow, ed., Morale Scolarium, 98, 121, 122, and 124-25; also Patow, The Arts Course, 41-43.
    ${ }^{98}$ See especially Rudolf Flotzinger, "Zur Frage der Modalrhythmik als Antike-Rezeption," Archiv für Musikwissenschaft 29 (1972): 203-08.
    ** Sanders, "Conductus," 449 and n. 54.
    ${ }^{100}$ See the discussion of this factor by Flotzinger, 206.
    ${ }^{101}$ See Sanders, "Conductus," 467, n. 101.
    ${ }^{102}$ Stevens, Words and Music, 429.
    103 "Undoubtedly", says Craig Wright, "such a system developed for purely musical reasons in a purely musical context . . ." ("Leoninus, Poet and Musician," Journal of the American Musicological Society 39 [1986]: 30). Flotzinger, Fassler's statement to the contrary ("The Role," 353 and n .29 ) notwithstanding, comes to the opposite conclusion (Flotzinger, "Zur Frage," 208), with which Fassler necessarily agrees ("Accent," 188-90). In fact, she sums up that in clausulae "text is no longer present to . . . provide a relentless trochaic beat" ("The Role," 372). See also n. 84 above, as regards the credit she ascribes to the Parisian sequence for bringing about the rhythmic innovations of the Notre-Dame composers.
    ${ }^{104}$ Ewald Jammers, ed., Aufzeichnungsweisen der einstimmigen außerliturgischen Musik des Mittelalters, Palaeographie der Musik 1/4 (Cologne: Volk-Gerig, 1975), 37.

[^173]:    ${ }^{105}$ For two examples from the Notre-Dame motet repertoire see Sanders, "The Medieval Motet," in Gattungen der Musik in Einzeldarstellungen: Gedenkschrifi Leo Schrade (Bern: Francke, 1973), 511. For the treatment of text in conducti see idem, "Conductus," 460-66. Dolores Pesce's contention ("The Significance of Text," $91-117$, specifically 101-17) that certain motets in the Bamberg codex "illustrate how . . . the creators of these motets, with few exceptions, work for agreement of musical and textual stress" (p. 106) seems less than tenably proven by the evidence she adduces. Of the third-mode motets, Ba no. 30, which, though "treating text declamation somewhat inconsistently" (p. 102), "brings to light the fact that consistent musical-textual treatment occurs only at line endings" (p. 103), nevertheless has a verse ending joining a word accent and a brevis altera. The conjunction of a stressed syllable and a brevis altera occurs eleven times in no. 77 (though not in the verses cited in figure 6), and while the appearance of four such cases in a total of sixteen breves altere ( $25 \%$ ) in the triplum of no. 14 may constitute a relatively "low percentage of conflicts between textual and musical accents" (p. 104), it is hardly insignificant. No. 99, a first-mode motet, cited (though not discussed) as a composition with "texts whose regular stress patterns encounter minimum conflict in the musical setting" ( p . 103), contains seven disyllables set to a breve followed by a long. Even in cases, such as nos. 2 and 96, that exhibit "fractio modi," consistency in musical patterning takes precedence over propriety of prosody, which in each instance could easily have been achieved by a slight shift in the fractio. In general, the relative frequency of good prosody, rather than proving composers' concerned awareness, should be seen as due to the above-mentioned easy coincidence of Latin accentuation with the pattern of the first mode. (The stiffness of third-mode articulation does not, in any case, evince solicitude for good declamation.)
    ${ }^{106}$ (a) Montpellier, Faculté de Médecine, MS. H 196, fol. $372^{\text {² }}$. Transcriptions in Yvonne Rokseth, Polyphonies du XIIre siecle (Paris: Oiseau-Lyre, 1936), 3:228; and in Hans Tischler, ed.,

