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NOTRE DAME THEORY: A STUDY OF TERMINOLOGY, INCLUDING A
NEW TRANSLATION OF THE MUSIC TREATISE OF ANONYMOUS IV

Stanford University

PH.D. 1982

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NOTRE DAME THEORY: A STUDY OF TERMINOLOGY,
INCLUDING A NEW TRANSLATION OF THE MUSIC TREATISE
OF ANONYMOUS IV

A DISSERTATION
SUBMITTED TO THE DEPARTMENT OF MUSIC
AND THE COMMITTEE ON GRADUATE STUDIES
OF STANFORD UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

By

Jeremy Yudkin

April 1982

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Jeremy Yudkin

I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

William Peter Mahrt

I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

George Houle

I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Ronald G. Patton

Approved for the University Committee on
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Dean of Graduate Studies & Research

PREFACE

The first major theorist of the music of Notre Dame is Johannes de Garlandia. Garlandia, a true Scholastic theorist, divides the whole of the polyphonic music of his time into three species:

Sciendum est ergo, quod ipsius organi generaliter
accepti tres sunt species, scilicet discantus,
copula et organum . . .¹

These three species of music provide the framework here for a discussion of Notre Dame theory as it is represented by three major theorists of the thirteenth century: Garlandia, the Anonymous of St. Emmeram, and Anonymous IV.

These writers are closely interrelated, the latter two depending heavily on their predecessor. Anonymous IV acknowledges his debt to Garlandia both explicitly and by constant reference and quotation. The text of the treatise of the St. Emmeram Anonymous has even been used as a secondary source for confirmation of the Garlandia text by Garlandia's modern editor.

The Latin texts of all three of these theorists are now available in reliable modern editions. Since a considerable amount of the disagreement in the past concerning certain as-

¹(It should be known therefore, that of polyphony in its generic sense there are three species, that is to say discantus, copula and organum . . .)

pects of Notre Dame theory has centered around inexact or inaccurate texts, especially those transmitted in the editions of Coussemaker, it seems now to be an appropriate time to reconsider some fundamental questions.

This dissertation is founded upon a single premise, which is in turn given greater focus by another. The first premise is that the words of the theorists can provide significant insights into the nature of Notre Dame music which are unobtainable through any other means. It is the exact words used, each with its own force and resonance, that are crucial; and this dissertation, therefore, considers the theory in the original Latin. (A literal translation of each quotation, however, is given in the footnotes.)

The second premise is that in their discussions of music theory the thirteenth-century authors were heavily dependent upon a vocabulary that was extra-musical. This premise is not new, any more than is the previous one; and yet a full investigation of the extent and nature of the terminological borrowings in Notre Dame theory, such as this dissertation represents, has not previously been attempted.

An Introduction sketches the intellectual and educational background of the period in order to suggest a rationale for this terminological dependence. The following chapters discuss each of the species of polyphonic music in the context of their treatment by the three theorists. Garlandia's order, however, has not been followed. At the time he was writing, discantus, with its rational rhythm and orderly system of rules,

was the main focus of interest, and would remain the preoccupation of the future. For this reason, it is, of the three species, the first dealt with by Garlandia, the most fully treated, and the best understood in our own day. Organum, on the other hand, represented an older style, more dependent upon a tradition of performance, and destined not to survive. This dissertation discusses the three species in the order in which they actually occur in the music. Chapter I attempts to find a rhythmic rationale for organum purum from the comments of all three theorists. Chapter II considers in detail the brief passage on the copula in Garlandia's treatise and shows how this passage influenced the two later theorists. The third chapter closely compares the treatment of discantus in all three treatises.

The translation of Anonymous IV provides a readable, but scrupulously accurate, English version of this important work, based upon the new critical edition of the text.

An Appendix brings together all the latest research on the chronology of the theorists and establishes a tentative chronological sequence for the major musical treatises of the thirteenth century.

ACKNOWLEDGMENTS

This dissertation owes much to many people. It would not have been begun had not George Houle encouraged its author to believe that a floundering linguist with a passionate interest in music could become a useful musicologist.

Its initial hesitancies, ensuing progress, and final crystallization were guided throughout by William Mahrt, whose wisdom and expertise are inexhaustible, and for whose generous and unstinting bestowal of both I cannot here sufficiently express my gratitude.

Thomas Binkley persuaded me to broach difficult problems I would rather have left unassayed, and has provided continual encouragement.

It is a source of the deepest regret that Imogene Horsley was unable to see the completion of this essay. Leonard Ratner, who has himself revealed so much of the logical and rhetorical nature of eighteenth-century music, kindly agreed to serve as a reader in her stead.

I am grateful to my colleagues in the Stanford Medieval University Group: Eunice Mary Schroeder and Gerardo Huseby. Their support and criticism were invaluable.

I should also like to thank the staff members of the Stanford University Libraries (especially the Music Department Library), the University of California Libraries, the British

Library in London, and the Bayerische Staatsbibliothek in Munich.

An enormous debt of personal gratitude is owed to my family; and to Joan Wolfe Mindick, Robert Bolgar, and Kathryn Yudkin.

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ABBREVIATIONS

The following abbreviations have been adopted for the texts of the three main theorists:

- Garlandia: Erich Reimer, Johannes de Garlandia: De Mensurabili musica. 2 vols. Beihefte zum Archiv für Musikwissenschaft, vols. 9-10. Wiesbaden: Franz Steiner, 1972.
- Anon. St. Emmeram: Heinrich Sowa, Ein anonymer glossierter Mensuraltraktat 1279. Königsberger Studien zur Musikwissenschaft, vol. 9. Kassel: Bärenreiter, 1930.
- Anon. IV: Fritz Reckow, Der Musiktraktat des Anonymus 4. 2 vols. Beihefte zum Archiv für Musikwissenschaft, vols. 4-5. Wiesbaden: Franz Steiner, 1967.

The quotations follow the text established by these editors, including spelling and punctuation, except where otherwise indicated. Citations also follow the conventions of each editor, i.e., chapter and sentence in Garlandia, page and line in Anon. St. Emmeram and Anon. IV.

The above editions of Johannes de Garlandia and Anonymous IV contain extensive commentary by their editors. Since these are also cited frequently in this dissertation, they are abbreviated in the footnotes as:

Reimer, Johannes de Garlandia . . . Vol. 1 or 2.

and

Reckow, Der Musiktraktat . . . Vol. 1 or 2.

INTRODUCTION

Leonin's Magnus Liber and its later musical accretions stand collectively as an imposing monument in the history of Western polyphony. Even from a modern vantage point, the music of Notre Dame seems an achievement of powerful innovative brilliance. And yet it is built upon a centuries-old foundation of Gregorian chant. This dichotomy, this contrast between the old and the new, is emblematic of the intellectual life of Western Europe from the middle of the twelfth century to the last quarter of the thirteenth.¹

¹The following studies are central to an understanding of the period, and especially of the influence of the universities and their curricula: Paul Abelson, The Seven Liberal Arts: A Study in Mediaeval Culture (New York: Teachers College, Columbia University, 1906); R.R. Bolgar, The Classical Heritage and its Beneficiaries (Cambridge: Cambridge University Press, 1954); A. B. Cobban, The Medieval Universities: Their Development and Organization ([London]: Methuen, 1975); P. Glorieux, La Faculté des arts et ses maîtres au XIII^e siècle, Etudes de philosophie médiévale, vol. 59 (Paris: Librairie Philosophique J. Vrin, 1971); Lawrence Gushee, "Questions of Genre in Medieval Treatises on Music," in Gattungen der Musik in Einzeldarstellungen, vol. 1, ed. Arlt, Lichtenhahn, Oesch (Bern: Francke, 1973): 365-433; David Knowles, The Evolution of Medieval Thought (New York: Vintage Books, 1962); J. Koch, Artes Liberales von der Antiken Bildung zur Wissenschaft des Mittelalters (Leiden: E. J. Brill, 1954); Gordon Leff, Paris and Oxford Universities in the Thirteenth and Fourteenth Centuries: An Institutional

The reappearance and reassessment of Classical sources that had been taking place during the previous two hundred years culminated in the slow but steady arrival of the "new" Aristotle. These profoundly important works - the Analytica priora and posteriora, the Topica and the de Elenchis sophisticis - produced heightened friction between the philosophy of the ancients and received Christian learning. This was not a new conflict. It had its origins in the birth of the new religion, and was embodied in varying degrees in the patristic literature. The tension between pagan literature and thought and the fundamental tenets of Christianity was of constant concern in the development of medieval culture. The manner of dealing with this tension during the period in question was one of its most particular features. The era was characterized by a spirit of organization, a determined attempt to re-

and Intellectual History (New York: John Wiley and Sons, 1968); James J. Murphy, Rhetoric in the Middle Ages: A History of Rhetorical Theory from Saint Augustine to the Renaissance (Berkeley: University of California Press, 1974); Alexander Murray, Reason and Society in the Middle Ages (Oxford: The Clarendon Press, 1978); Louis Paetow, "The Arts Course at Medieval Universities with Special Reference to Grammar and Rhetoric," University of Illinois, The University Studies 3, 7 (January 1910); Edwin Panofsky, Gothic Architecture and Scholasticism (Latrobe, Pennsylvania: Archabbey Press, 1951); G. Paré, A. Brunet, and P. Tremblay, La Renaissance du XII^e siècle: les écoles et l'enseignement (Paris: Librairie Philosophique J. Vrin, 1933); Hastings Rashdall, The Universities of Europe in the Middle Ages, ed. Powicke and Emden, 3 vols. (London: Oxford University Press, 1936).

concile the Classical heritage with the fixed bases of the Christian view. The powers of the highest intellects were brought to bear on this effort, and the resulting works are monuments of outstanding brilliance and scope.

At the same time the established order was under attack from a different quarter. The economic boom of the eleventh and twelfth centuries had not only raised the expectations of feudal overlords, but had slowly spread the possibility of personal advancement amongst those lower on the social scale. The universities nourished learning for its own sake, but many of the students attending were fired by more mundane concerns. The newly organized studies were at the same time the basis for the work of a Thomas Aquinas, and the means to a successful career for a poor law student. A job as a qualified doctor or a position in the church offered relief from grinding poverty for anyone ambitious enough to undertake the necessary study.

The period was one of ferment: of new acquisitions and bannings, of rejection and rapprochement, of pure scholarship and careerism, of innovation and retrenchment. It is called the Age of Scholasticism, and may be said to run from the Sentences of Peter Lombard to the death of Aquinas. This period coincides closely with the era of the Notre Dame school, which we shall denote as running from the compositions of Leonin to the work of the last modal theorist (Anonymous IV).

The music of Notre Dame has been correctly associated with the growing magnificence of the Cathedral on the Ile de la Cité, but the productions of its musical theorists are tied at least

as closely to the new University of Paris. Johannes de Garlandia taught at the University, and Anonymous IV may have been one of his students. The Anonymous of St. Emmeram also follows Garlandia closely, and his treatise was written as an attack on Lambertus, who seems to have had connections with Parisian musical circles, and also used Garlandia's treatise partly as a model for his own.

The University was an outgrowth of the cathedral school of Notre Dame. Its exact origins are still somewhat obscure, but by the early thirteenth century it was established as an academic entity, an universitas or guild of scholars. In the studium generale the faculty of arts was the most influential. Its rector was head of the University as a whole. Embracing most of the students enrolled, the arts faculty provided the foundations of learning upon which the higher faculties of theology, law, and medicine were built. A large proportion of students left Paris after their six years in arts and the requisite two years of teaching as magister regens, so that the arts degree with its courses in the seven liberal arts represented the most widely dispersed general education then available.

The concept of an education based upon the seven liberal arts reaches back to ancient times. A bipartite artistic curriculum was proposed by Plato in the Republic to prepare the way for the highest education - the study of philosophy. The Greco-Roman educational tradition during the Republic and early

Empire was based on grammar, rhetoric, and literary criticism and history. But the terminology of the medieval curriculum was derived from the writings of Martianus Capella, Cassiodorus and Isidore of Seville. In the de Nuptiis Mercurii et Philologiae of c. 425, Capella gave, insofar as the allegorical nature of his book allowed, an account of the nature and content of the seven liberal arts. In the mid-sixth century Cassiodorus lent authority to the curriculum, and fixed the number of studies, by adducing Proverbs' seven pillars of Wisdom; while some fifty years later the Etymologiae of Isidore of Seville reiterated these concepts as well as giving currency to the terms Trivium and Quadrivium.² The fact that these last two authors were Christians added to the acceptability of their precepts in later times.

By the early thirteenth century, however, it was clear that the notion of an equal balance among the seven liberal arts was partially fictive. The Trivium had so far overshadowed the mathematical arts that in the statutes laid down for the University of Paris by Robert Curzon, the papal legate, in 1215, the only textbooks mentioned were those for Grammar, Rhetoric, and Logic.³

²The word quadrivio appears in Boethius' de Institutione Arithmetica (ed. Friedlein [Leipzig: Teubner, 1867], p. 7).

³Chartularium Universitatis Parisiensis, ed. Denifle and Chatelain, 4 vols. (Paris, 1891-99), vol. 1, no. 11. In 1245 Brunetto Latini still stressed the vital importance of the Trivium:

... la premiere est gramatique ki est fondement et porte et entree des autres sciences; ki nos ensegne a parler et escrire et lire a droit, sans vice de barbarisme ou

The emphasis should not be surprising. Grammar had always been a synonym for the study of Latin language and literature, and for any scholar in any field in the Middle Ages Latin was indispensable. Students came from many different countries to study in Paris, and the four "nations" were umbrella organizations for a diverse and polyglot mass of men. Rhetoric, in its new and practical emphasis on the ars dictaminis, was a vital educational course for those would-be clerks and secretaries in any office, especially ecclesiastic or legal. Also, the newly arrived Aristotle together with the logica vetus (and later the logica moderna of Petrus Hispanus) made the third subject in the Trivium, Logic, of central importance. Not only was Logic a vital prerequisite for the concerns of the higher and most esteemed faculty of Theology, but the dialectical method became a newly powerful tool in all areas of scholarly activity.

The old text-books for Grammar, Donatus and Priscian, were still standard in the University until 1366, when the new, popular, rhyming grammar books, the Doctrinale of Alexander of Villedieu and the Graecismus of Eberhard of Béthune

de solercisme. La seconde est dyalectike, ki nous enseigne prover nos dis et nos paroles par tele raison et par teus argumens ki donnent foi as paroles ke nous avons dites si k'eles samblent voires et provables a estre voires. La tierce science est retorique, cele noble science ki nous enseigne trover et ordener et dire paroles bonnes et bieles et plaines de sentences selon ce ke la nature requiert.

(Li Livres dou Trésor, ed. Carmody [Berkeley: University of California Press, 1948], Chapter 3).

officially replaced Priscian.⁴

In Rhetoric, Quintilian's Institutiones Oratoriae, Cicero's de Inventione and the pseudo-Ciceronian ad Herennium were predominant, together with contemporary imitations such as Matthew of Vendôme's Ars Versificatoria. But a previously unimportant subdivision of the ancient rhetorical course, the art of letter-writing (ars dictaminis) became, at this practical and proto-capitalistic time, a vital branch of learning, and threatened to usurp the traditional and literary independence of rhetorical studies.

Logic by now included the whole of Aristotle's Organon as well as the work of his translators and commentators such as Victorinus and Boethius. As introductory texts, the Summulae of Petrus Hispanus and the Parva Logicalia of Marsilius were favored.

Throughout the Trivium, an enormous amount of cross-fertilization was taking place. The ars dictaminis combined Ciceronian rhetorical principles with grammatical precepts. The new grammars contained discussions of the colores rhetorici. Logic was founded on a precise use of language; and Grammar was gradually transformed into a speculative study.

This emphasis on the Trivium, and the decline of the Quadrivium, coincided with a powerful new impetus and series of achievements in the field of polyphonic music. Unfortunately there is no record of the musical text-books in use at

⁴Chartularium, vol. 3, no. 145.

the University of Paris during the first part of the thirteenth century, but it seems likely that Boethius' De Musica, together perhaps with the musical sections from Capella, Cassiodorus and Isidore, would have formed the core of the curriculum.⁵

As we know, however, a new body of theoretical writings grew up that attempted to deal with the novelties and achievements of the new polyphonic art. And since Boethius and the ancient mathematical vocabulary were clearly inadequate to describe the complexities of the new music, the theorists turned to the vocabulary and technical terminology of Grammar, Rhetoric, and Logic - studies that had formed the primary basis of their education.

How an understanding of this fact can help to illuminate the musical theory of the Notre Dame period will be demonstrated in the following chapters.

⁵ See Nan Cooke Carpenter, Music in the Medieval and Renaissance Universities (Oklahoma: University of Oklahoma Press, 1958), pp. 54-56, 82-89; also P. Glorieux, La Faculté des arts, pp. 35 and 57.

CHAPTER I

ORGANUM

As is well known, the word organum in music theory had a multiplicity of meanings. The first task of this chapter will be to clarify with what meaning of the word organum we shall here be concerned.

A thorough investigation of the origins, etymology, and different usages of the term has been undertaken by Fritz Reckow in several studies.¹ It is in the thirteenth century,

¹Fritz Reckow, "Organum," in Handwörterbuch der musikalischen Terminologie (Wiesbaden: Franz Steiner, 1971-); idem, "Das Organum," in Gattungen der Musik in Einzeldarstellungen: Gedenkschrift für Leo Schrade, vol. 1, ed. Arlt, Lichtenhahn, and Oesch (Bern: Francke, 1973); idem, "Organum-Begriff und frühe Mehrstimmigkeit: Zugleich ein Beitrag zur Bedeutung des 'Instrumentalen' in der spätantiken und mittelalterlichen Musiktheorie," in Forum Musicologicum, vol. 1 (Bern: Francke, 1975). Reckow, however, has overlooked one important etymological connection in the Scholastic era. The six logical treatises of Aristotle, the last of which became known to the West in the mid-twelfth century, were known collectively as the ὄργανον (Latin, organum). Organum was also a technical term for Logic in general (see Lexicon Latinitatis Medii Aevi, Corpus Christianorum [Turnholt: Brepols, 1975], p. 641b), or for types of logical categories in particular:

Sequuntur Aristotelis categoriae sive praedicamenta, quibus mirum in modum per varias significantias omnis conclusus est sermo; quorum organa sive instrumenta sunt tria. Organa vel instrumenta categoriarum sive praedicamentorum sunt tria: aequivoca univoca denominativa. (Cassiodorus, Institutiones, ed. Mynors [Oxford: The Clarendon Press, 1937, reprinted 1961], p. 113.)

(There follow the categories or predicates of Aristotle, of which in a marvelous way through various significations every

however, that the word organum appears at its most equivocal.

Anonymous IV confronts the problem clearly when he writes:

Sciendum, quod organum verbum aequivocum est. [70:26]²

And he then goes on to give many of the current meanings:

Quandoque dicitur organum purum ut in Iudea et Ierusalem in duplo vel Descendit de caelis vel Gaude Maria etc. Alio modo dicitur organum ut in instrumento organorum, sicut prophetia dicit in cordis et organo. Quandoque dicitur alio modo ut in organo triplo, quamvis improprie, ut in Posui adiutorium in triplo. Quandoque simplex organum dicitur ut in simplicibus conductis. Alio modo, prout clerici communes accipiunt, prout in duplicibus conductis, triplicibus, quadruplicibus etc. similia, quamvis improprie. Est et aliud organum, prout universales antiqui nominaverunt, et hoc est, prout concordaverunt sonos cum sonis. [70:26-71:3]³

The final definition brings the applications of the term in polyphonic music back full circle, since it was in the old sense of a note-against-note musical structure that the word first became used in the tenth century.⁴

speech is comprised; and of them there are three organa or instruments. The organa or instruments of categories or predicates are three: equivocal, univocal, denominative.)

²The Anonymous IV references are given according to Reckow's system: page number, followed by line number(s).

(It should be known that organum is an equivocal word.)

³(Sometimes organum purum is meant, as in "Iudea and Ierusalem" in duplum or "Descendit de caelis" or "Gaude Maria" etc. Organum is used in another way, as in the instrument the organ, as the prophet said, "with stringed instruments and organs." Sometimes it is used in another way, as in organum triplum, although improperly, as in "Posui adiutorium" in triplum. Sometimes single organum is meant, as in single conducti. It is used in another way, as by the common clergy, as in double, triple, quadruple, etc., conducti and similar things, although improperly. And there is also another organum, as all the antiqui called it, and that is when they combined sounds with sounds in concord.)

⁴See Reckow, Handwörterbuch, "Organum," IV, (1).

Anonymous IV does not give one of the primary meanings of the term as used by Johannes de Garlandia; that is to say in the sense of polyphony in general:

Habito de ipsa plana musica, quae immensurabilis dicitur, nunc est praesens intentio de ipsa mensurabili, quae organum quantum ad nos appellatur, prout organum generaliter dicitur ad omnem mensurabilem musicam. [I:1]⁵

The phrase "quantum ad nos" suggests that Garlandia feels that this is an unusual usage, which is perhaps why Anonymous IV does not follow his phraseology. The Anonymous of St. Emmeram, however, imitates Garlandia closely:

Facta superius mentione de organo in generali prout est genus ad omnes cantuum species generale seu etiam radicale . . . [125:5-7]⁶

A common element in all three treatises, however, is the decision of their authors to delimit further the application of the word organum by the use of adjectives or adverbial phrases.

Johannes de Garlandia writes:

Organum dicitur multipliciter: generaliter et specialiter. De organo generaliter dictum est superius; nunc autem dicendum est de ipso in speciali. [XII: 1-2]⁷

⁵The Garlandia references are given according to Reimer's system. The first (Roman) number represents the chapter, the second number the sentence(s) in that chapter.

(Having spoken about musica plana, which is said to be unmeasurable, now it is my present intention to discuss measurable music, which is called organum as far as we are concerned, as organum generically is used for all measurable music.)

⁶The references are according to Sowa's system - page number, followed by line number(s).

(Having made mention above about organum in general, as it is a genus that is general or even basic to all species of melodies . . .)

⁷Organum is said in many ways: generally and particularly.
[Continued]

Anonymous IV, as we have seen, uses the phrase organum purum.

The Anonymous of St. Emmeram discusses organum speciale:

In hoc autem capitulo de speciali organo quod et duplex dicitur uult actor facere mentionem. . . .
[127:14-15]⁸

All three authors leave the discussion of organum to the end of their respective treatises, having previously dealt with discantus and copula. Garlandia, as we have seen, announces his intention at the very beginning of his first chapter:

Sciendum est ergo, quod ipsius organi generaliter accepti tres sunt species, scilicet discantus, copula et organum, de quibus dicendum est per ordinem. [I:3]⁹

This is picked up again at the beginning of the final chapter of the treatise:

Organum dicitur multipliciter: generaliter et specialiter. De organo generaliter dictum est superius; nunc autem dicendum est de ipso in speciali. Organum in speciali dicitur dupliciter: aut per se aut cum alio. [XIII:1-3]¹⁰

Now, however, the species organum is further divided into two types: organum per se and organum cum alio. Organum per se corresponds to Anonymous IV's organum purum, and organum

We have spoken above about organum in general; now, however, we must speak of it in particular.)

⁸(In this chapter, however, the author wants to make mention about particular organum, which is said to be of two kinds. . . .)

⁹(It should be known therefore, that of polyphony in its generic sense there are three species, that is to say discantus, copula, and organum, about which we must speak in order.)

¹⁰(Organum is said in many ways: generally and particularly. We have spoken above about organum in general; now, however, we must speak of it in particular. Organum in particular is said to be of two kinds: either per se or cum alio.)

cum alio with Anonymous IV's organum triplum.¹¹ The Anonymous of St. Emmeram retains Garlandia's phraseology:

Notandum quod organum dicitur multipliciter, aut per se, aut cum alio. [127:22-24]¹²

The issue of the rhythm of organum per se/organum purum is one that has been controversial and occasionally divisive in musicological studies, and it will therefore be appropriate to review the secondary literature on the subject at this point.

In the commentary to his edition of Anonymous IV (1967), Reckow gives a summary of opinions and the results of research conducted up to that time. All points of view have been advanced, from Ludwig,¹³ Peter Wagner¹⁴ and Besseler's¹⁵ suggestions of improvisatory freedom, to Handschin¹⁶ and Günter Birkner,¹⁷ who thought that the interpretation should be

¹¹Anonymous IV, however, describes this as a phrase that is used improprie (70:30) and prefers himself to use the adjective alone (triplum, or triplex [cf. also quadruplum and quadruplex]) as a substantive. See 46:13, 61:17, etc.

¹²(It should be noted that organum is said in many ways, either per se or cum alio.)

¹³Friedrich Ludwig, "Die Liturgischen Organa Leonins und Perotins," in Riemann-Festschrift (Leipzig: M. Hesse, 1909).

¹⁴Peter Wagner, "Zum Organum Crucifixum in carne," Archiv für Musikwissenschaft 6 (1924):405ff.

¹⁵Heinrich Besseler, Die Musik des Mittelalters und der Renaissance, Handbuch der Musikwissenschaft, ed. Bücken (Potsdam: Athenaion, 1931-34).

¹⁶Jacques Handschin, "Zu den 'Quellen der Motetten ältesten stils'," Archiv für Musikwissenschaft 6 (1924):247ff.

¹⁷Günter Birkner, "Die Gesänge des Graduale Karlsruhe Pm 16" (Ph.D. dissertation, Freiburg, 1951).

according to modal or even Franconian principles, to the equalist proposals of Anselm Hughes.¹⁸ The most acrimonious exchanges took place between Apel¹⁹ and Waite.²⁰ Waite insisted upon a rigorously modal interpretation and went so far as to transcribe the whole of the Magnus Liber, as it appears in W_1 , in modal rhythm. Apel argued for the application of the rules of consonance, which produce a rhythm that is clearly non-modal. (Later, Apel wrote that the rules of consonance could not be definitively considered as "die endgültige Lösung des Problems der Duplumnotation,"²¹ and suggested transcriptions in equal notes according to the proposals of Anselm Hughes.) Later writers tended to group themselves as being either for or against Waite's ideas. Bukofzer²² and Zaminer²³

¹⁸Anselm Hughes, "Music in Fixed Rhythm," in The New Oxford History of Music, vol. 2 (London: Oxford University Press, 1954), pp. 311-352.

¹⁹Willi Apel, "From St. Martial to Notre Dame," Journal of the American Musicological Society 2 (1949): 145-158; Willi Apel and William Waite, Communications, in Journal of the American Musicological Society 5 (1952): 272ff.; Willi Apel, The Notation of Polyphonic Music, 5th ed. (Massachusetts: The Mediaeval Academy of America, 1961), p. 448.

²⁰William Waite, The Rhythm of Twelfth-Century Polyphony: Its Theory and Practice, Yale Studies in the History of Music, vol. 2 (New Haven: Yale University Press, 1954).

²¹Willi Apel, Die Notation der Polyphonen Musik 900-1600 (Wiesbaden: Breitkopf und Härtel, 1970), p. 302.

²²Manfred Bukofzer, Review of William Waite, The Rhythm of Twelfth-Century Polyphony, in Notes 12 (1955): 232-236.

²³Frieder Zaminer, Der Vatikanische Organum-Traktat (Ottob. lat. 3025): Organum-Praxis der frühen Notre Dame-Schule und ihrer Vorstufen, Münchner Veröffentlichung zur Musikgeschichte, vol. 2, ed. Georgiades (Tutzing: Schneider, 1959).

argued for the more flexible approach, and Jammers²⁴ thought the modal-rhythmic interpretation anachronistic. Parrish²⁵ suggested a mensuralist rendition, whereas Luther Dittmer²⁶ and Heinrich Husmann²⁷ were in full agreement with Waite.

Since the publication of Reckow's edition and commentary, further work on this specific question has been done by other scholars, as well as by Reckow himself.²⁸ Hans Tischler²⁹ was convinced that modal rhythm would be the basis for a transcription of the organa dupla, as was Karp,³⁰ with whom Tischler

²⁴Ewald Jammers, Anfänge der abendländischen Musik, Sammlung musikwissenschaftlicher Abhandlungen, vol. 31 (Strasbourg: Librairie Heitz, 1955).

²⁵Carl Parrish, The Notation of Medieval Music (New York: Norton, 1957).

²⁶Luther Dittmer, A Central Source of Notre-Dame Polyphony. Facsimile, Reconstruction, Catalogue raisonné, Discussion and Transcriptions, Mediaeval Musical Manuscripts, vol. 3 (Brooklyn: Institute of Mediaeval Music, 1959).

²⁷Heinrich Husmann, "Notre-Dame-Epoche," in Die Musik in Geschichte und Gegenwart, vol. 9 (Kassel and Basel: Bärenreiter, 1961).

²⁸Reckow did not mention the study of Arnold Geering (Die Organa und Mehrstimmigen Conductus in den Handschriften des deutschen Sprachgebietes von 13. bis 16. Jahrhundert [Bern: Paul Haupt, 1952]), in which Geering says of the held-tone style:

Ihre Auswertung für die Rhythmisierung bleibt allerdings in manchen Fällen dunkel, da ein einheitliches System nach Art der Modal-Theorie nicht aufgefunden werden kann.

(op. cit., p. 49)

²⁹Hans Tischler, "A Propos a Critical Edition of the Parisian Organa Dupla," Acta Musicologica 40 (1968):28-43.

³⁰Theodore Karp, "Towards a Critical Edition of Notre Dame Organa Dupla," The Musical Quarterly 52 (1966):350-367.

disagrees only in certain details. Flotzinger³¹ suggested that not only the passages in organum purum but the whole Magnus Liber was originally in a rhythmically free style. In his review of Flotzinger's book, Ernest Sanders³² points out correctly that "Nur weil Leoninus optimus organista genannt wurde, braucht man nicht anzunehmen, dass er keinen Diskant schrieb,"³³ but certainly assumes that organal rhythm was not modal. In an essay published in 1971,³⁴ Eggebrecht discussed the issue of the transcription of organum purum. He pointed out that any transcription into modern notation is necessarily a falsification of the original, and suggested a method for transcribing that would leave the free and improvisatory nature of the music intact. "Die 'Komposition' gibt es erst in Zusammenwirken von Notator und Cantor beim Akt der Ausführung."³⁵ In his critical edition of Johannes de Garlandia's treatise, Reimer also clearly interprets Garlandia as defining the rhythm of organum per se as non-modal.³⁶ In his dissertation,³⁷ Roesner

³¹Rudolf Flotzinger, Der Discantussatz im Magnus Liber und Seiner Nachfolge, mit Beiträgen zur Frage der sogenannten Notre-Dame-Handschriften, Wiener Musikwissenschaftliche Beiträge, vol. 8 (Wien, Köln, Graz: Hermann Böhlaus, 1969).

³²Ernest H. Sanders, "Notre-Dame-Probleme," Die Musikforschung 25 (1972):338-342.

³³Loc. cit., p. 340.

³⁴Hans Heinrich Eggebrecht, "Organum purum," in Musikalische Edition im Wandel des historischen Bewusstseins, ed. Georgiades (Kassel: Bärenreiter, 1971).

³⁵Op. cit., p. 108.

³⁶Reimer, Johannes de Garlandia . . . Vol. 2, p. 36.

takes Garlandia's modus non rectus to mean a basically modal scheme that is broken up or expanded by fractio or reductio modi. This is based closely on Waite's views.³⁸ In a later article,³⁹ Roesner still believes that organum purum is conceived in modal rhythm, but finds a disparity between theory and practice. Kenneth Levy⁴⁰ described early organum duplum passages as "rhythmically less regular" and supports Eggebrecht's views on transcription. In a response to Levy, Tischler⁴¹ writes that the "free-flowing rhythm" of organum purum was "conceived within an overall metric plan related to what later was to become the first rhythmic mode," claims that all rhythm must have meter, and, despite a concentration on issues of transcription, does not mention Eggebrecht's essay. More recently, Tischler has described organal style as one in which "the slow-paced chant cantus firmus carries a rhythmically highly varied melody without strong metric drive," and also speaks of the upper voice in organum as being "a rather free-flowing melody."⁴²

³⁷ Edward Roesner, "The Manuscript Wolfenbüttel, Herzog-August-Bibliothek, 628 Helmstadiensis: A Study of its Origins and of its Eleventh Fascicle," 2 vols. (Ph.D. dissertation, New York University, 1974).

³⁸ See Waite, The Rhythm, p. 123.

³⁹ Roesner, "The Performance of Parisian Organum," Early Music 7 (1979):174-189.

⁴⁰ Kenneth Levy, "A Dominican Organum Duplum," Journal of the American Musicological Society 27 (1974):183-211.

⁴¹ Hans Tischler, "Apropos of a Newly Discovered Organum," Journal of the American Musicological Society 28 (1975):515-526.

⁴² Hans Tischler, "The Structure of Notre-Dame Organa," Acta Musicologica 49 (1977):193-199.

Leo Treitler⁴³ argues for an accentual interpretation of twelfth- and thirteenth-century music, but includes a structural and compositional analysis of a section of organum purum to facilitate ambiguities in a (basically modal) interpretation. Ernest Sanders believes that organum was developed before the full modal system and that it partakes of a certain "rhythmic freedom and flexibility."⁴⁴ The views of Fritz Reckow are represented in many publications.⁴⁵ He shows that the theorists of the thirteenth century clearly differentiate between the rhythm of discant and that of organum per se/organum purum, and argues that the latter must originally have been performed in a rhythm that was free from a modal structure. This view has been endorsed by Flotzinger.⁴⁶

With the appearance of new critical editions of some of the major theorists in recent years (among them Reckow's own edition of Anonymous IV), many misconceptions of earlier commentators can now be cleared away and a less puzzling and more thorough-going view of the situation can be obtained. The conclusions reached here concur in large part with the suggestions

⁴³Leo Treitler, "Regarding Meter and Rhythm in the Ars Antiqua," The Musical Quarterly 65 (1979):524-558.

⁴⁴Ernest H. Sanders, "Consonance and Rhythm in the Organum of the 12th and 13th Centuries," Journal of the American Musicological Society 33 (1980):264-286. In a recently published and somewhat vitriolic exchange of letters between Sanders and Treitler, the issue of the rhythm of organum purum is not addressed (Journal of the American Musicological Society 33 [1980]: 602-611).

⁴⁵See footnote 1 above.

⁴⁶"Organum," in the New Grove Dictionary of Music and Musicians.

made by Reckow, though minor differences of detail will be pointed out.

Before continuing with a close analysis of the words of the theorists, a few paragraphs will be devoted to a discussion of the still widely held interpretation of Waite - that "discantus, copula and organum are styles differentiated from one another by the specific relationship of one voice to another rather than on the basis of any special rhythmic differences. In all three cases modal rhythm is maintained. . . ." ⁴⁷

Reckow has clearly shown that Waite's theories are based upon significant inaccuracies in the Coussemaker editions upon which Waite relied. For example, Coussemaker has:

Organum per se dicitur id esse, quidquid profertur
secundum aliquem modum rectum aut non rectum.
[CS I, 114b] ⁴⁸

whereas the manuscript reads:

Organum per se dicitur id esse, quidquid profertur
secundum aliquem modum non rectum sed non rectum.
[XIII:4] ⁴⁹

Waite also used the incorrect reading in Coussemaker for another vital sentence in *Garlandia*:

⁴⁷William Waite, The Rhythm of Twelfth-Century Polyphony, p. 119.

⁴⁸(Organum per se is said to be that which is performed according to a certain mode that is rectus or non-rectus.)

⁴⁹For a discussion of this passage, see Chapter II, footnote 4, and cf. Reckow, Der Musiktraktat . . . Vol. 2, pp. 35-37; Reimer, Johannes de Garlandia . . . Vol. 2, pp. 37-38; Waite, The Rhythm, pp. 112-113; and Roesner, "The Manuscript . . .," p. 191.

(Organum per se is said to be that which is performed according to a certain mode that is not rectus but non-rectus.)

In non recto vero sumitur longa et brevis in primo modo, sed ex contingenti. [CSI, 114b]⁵⁰

although this had already been corrected in Cserba's edition⁵¹ according to the manuscript:

. . . sumitur longa et brevis non primo modo, sed ex contingenti. [XIII:7]⁵²

These misreadings, together with some inaccurate translations and fundamental misinterpretations⁵³ of the theorists, have seriously vitiated Waite's work and his understanding not only of the basic nature of organum purum but also of copula.⁵⁴

Despite Reckow's clear and convincing exposition, however, Waite's doctrine is still being espoused. In his detailed analysis of the notation of the manuscript W₁,⁵⁵ though he differs in several important points from Waite, Roesner proposes a basically modal rhythm for organum purum. In order to arrive at this interpretation, Roesner follows the manuscript P (Paris, Bibliothèque Nationale fonds latin 16663) for portions of Garlandia's treatise,⁵⁶ despite Reimer's

⁵⁰ (In a non-rectus mode, the long and breve are taken in the first way [? mode], but according to the context.)

⁵¹ Cserba, Hieronimus de Moravia, p. 225.

⁵² (. . . the long and the breve are taken not in the first way, but according to the context.)

⁵³ See Reckow, Der Musiktraktat . . . Vol. 2, p. 45, footnote 23; p. 49, footnote 32; p. 76, footnote 25.

⁵⁴ See Reckow, Die Copula, p. 17, footnote 2; p. 56, footnotes 1, 2.

⁵⁵ Edward Roesner, "The Manuscript. . . ."

convincing proof that P does not represent the original treatise, but a later, amended, version.⁵⁷

Roesner also relies on a study by Erickson⁵⁸ that purported to prove the existence of modal rhythm in organum purum through computer analysis of consonance level. Apart from some rash statements ("Post-Garlandian theorists, such as Anonymous IV and Franco [and perhaps the St. Emmeram Anonymous], assume that the entire duplum is in modal rhythm"),⁵⁹ Erickson's methodology is faulty. He shows that the dissonance level (tested well by his narrow criteria) in organum purum ranges from 6 per cent to 20 per cent. Yet he makes no parallel study of discant to serve as a control. More damaging still is Erickson's classification (buried on p. 77 of the computer printout) of the sixth as a consonance. Johannes de Garlandia, the Anonymous of St. Emmeram, Anonymous IV, and even Franco all agree in excluding the sixth from the consonances, or specifically classifying it as a dissonance.⁶⁰

In two recent articles,⁶¹ Roesner's views have been some-

⁵⁶Roesner, "The Manuscript . . .," p. 192, footnote 59.

⁵⁷Reimer, Johannes de Garlandia . . . Vol. 2, pp. 1-7.

⁵⁸Raymond Erickson, "Rhythmic Problems and Melodic Structure in Organum Purum: A Computer-Assisted Study" (Ph.D. dissertation, Yale University, 1970).

⁵⁹Op. cit., p. 6.

⁶⁰See the table in S. Gut, "La Notion de consonance chez les théoriciens du moyen âge," Acta Musicologica 48 (1976): 22; and this chapter, p. 44.

⁶¹"The Performance of Parisian Organum," Early Music 7 (1979):174-189, and "The Problem of Chronology in the Trans-

what modified. He writes that the rhythm of organum purum "often appears to have only a slight relationship with the patterns of rhythmic modes taught by theorists of the 13th century."⁶² He feels that the rhythmic modes are merely theoretical constructs and that modus rectus and non rectus are opposite extremes of a single rhythmic spectrum.⁶³

In fact, a careful reading of the treatises shows that organum per se/organum purum was originally performed in a rhythm that was free from a modal structure. What in fact this rhythm was is not clear and will perhaps never be known. This is admittedly a frustrating state of affairs, and yet so thoroughly do the words of the thirteenth-century theorists support a non-modal interpretation for organum purum that the evidence cannot be ignored.

Johannes de Garlandia:

Organum per se dicitur id esse, quidquid profertur secundum aliquem modum non rectum, sed non rectum. Rectus modus sumitur hic ille, per quem discantus profertur. Non rectus dicitur ad differentiam alicuius rectae, <quia> longae et breves rectae sumuntur debito modo primo et principaliter. In non recta vero sumitur longa et brevis non primo modo, sed ex contingenti. [XIII:4-7]⁶⁴

mission of Organum Duplum," in Music in Medieval and Early Modern Europe: Patronage, Sources and Texts, ed. Iain Fenlon (Cambridge: Cambridge University Press, 1981).

⁶²"The Performance . . . ," p. 184.

⁶³"The Problem . . . ," pp. 379-380.

⁶⁴(Organum per se is said to be that which is performed according to a certain mode that is not rectus but non-rectus. A rectus mode is used here to mean that by which discantus is performed. Non-rectus differs from a certain recta [mensura], <because> the rectae longs and breves are taken in the required

This passage has been much discussed and emended,⁶⁵ but its import is clear. Organum per se is performed differently from discant. Discant is performed in modus rectus; organum per se, in modus non rectus. Garlandia takes the expression modus rectus from Grammar, used there to describe the indicative mood,⁶⁶ and creates the neologism modus non rectus.⁶⁷ In modus non rectus, or [mensura] non recta, the notes are not performed modally,⁶⁸ but ex contingenti. Now contingens is also a term from the Trivium. It is a technical term from Logic, meaning that which may or may not be, as opposed to that which is necessarily. Boethius uses the word as a translation of Aristotle's τὸ ἐνδεχόμενον, and defines it as follows:

Contingens autem secundum Aristotelicam sententiam est, quodcumque aut casus fert aut ex libero cuiuslibet arbitrio et propria voluntate venit aut facilitate naturae in utramque partem redire possibile est, ut fiat scilicet et non fiat.⁶⁹

way first and foremost. But in non-recta [mensura] the long and breve are taken not in the first way, but according to the context.)

⁶⁵See Chapter II, footnote 10.

⁶⁶E.g., Priscian, Praeexercitamina:

Nunc autem de ea quae ad exercitationem pertinet dicimus; quam variis proferre modis solemus, per rectum indicativum, . . . (Keil, Grammatici Latini, vol. 3, p. 431, 6-7)

(But now we speak about that which pertains to practice; and this we usually put forth in various modes: the rectus, which is the indicative, . . .)

⁶⁷There is no parallel usage of modus non rectus in any of the grammarians.

⁶⁸Whether primo modo means here "in the first mode" or refers back in general to the "first method," i.e., rectus modus or ille per quem discantus profertur, is, from the point of view of the present discussion, immaterial; though Reimer believes the latter. See Johannes de Garlandia . . . Vol. 2, p. 38.

⁶⁹Boethius, Commentarii in librum Aristotelis τὸ ἐνδεχόμενον, ed. Meiser (Leipzig: Teubner, 1977), vol. 2, p. 190, 1-6.

[Continued]

Boethius explains this definition in more detail later:

Contingentia autem sunt (ut supra iam diximus) quae-
cumque vel ad esse vel ad non esse aequaliter sese
habent, et sicut ipsa indefinitum habent esse et non
esse, ita quoque de his adfirmationes <et negationes>
indefinitam habent veritatem vel falsitatem, cum una
semper vera sit, semper altera falsa, sed quae vera
quaeve falsa sit, nondum in contingentibus notum est.
Nam sicut quae sunt necessaria esse, in his esse defin-
itum est, quae autem sunt impossibilia esse, in his non
esse definitum est, ita quae et possunt esse et possunt
non esse, in his neque esse neque non esse est definitum,
sed veritas et falsitas ex eo quod est esse rei et ex eo
quod est non esse rei sumitur.⁷⁰

Thomas Aquinas wrote simply: "Contingens est quod potest
esse et non esse."⁷¹

Therefore what Garlandia means here is that in mensura
non recta the longs and breves are chosen according to an open
range of possibilities, rather than by the strict rules of the
rhythmic modes.

(Contingens, however, according to Aristotle's view, is
whatever either chance brings or comes from anyone's free will
and their own wish, or, through the willingness of nature, can
occur either way, that is to say so that it may happen and it
may not happen.)

⁷⁰Op. cit., vol. 2, p. 200, 11-24.

(Contingentia, however, are [as we have just said above]
whatever have equal potential either to be or not be, and just
as their being and not being is indefinite, so also affirmations
<and negations> about them are indefinite as to truth or false-
hood, since one is always true, and the other always false, but
which is true or which is false, is not yet known in contingen-
tia. For just as in those things which are necessary to be,
being is definite, but in those things which are impossible to
be, not being is definite; so in those things which both can
be and can not be, neither being nor not being is definite, but
truth and falsehood are taken from that which is the being of
something and from that which is the not being of something.)

⁷¹Summa Theologica (Opera Omnia, Rome, 1882), vol. 1, p.86, 3c.
(Contingens is what can be and not be.)

The possibilities are presumably circumscribed by the last few sentences of this final chapter, in which Johannes de Garlandia gives three rules for the recognition of longs and shorts:

Longae et breves in organo tali modo dinoscuntur, scilicet per <concordantiam>, per figuram, per paenultimam. Unde regula: omne id, quod accidit in aliquo secundum virtutem <concordantiarum>, dicitur longum. Alia regula: quidquid figuratur longum secundum organa ante pausatione in vel loco <concordantiae> dicitur longum. Alia regula: quidquid accipitur ante longam pausationem vel ante perfectam concordantiam dicitur esse longum.
[XIII:11-14]⁷²

It is clear, however, that these rules are insufficient for the formation of a rhythmic policy that will govern the flow of organum per se. Any rhythm resulting from a strict application of these rules would be both non-modal and nonsensical.⁷³

⁷² (Longs and breves in organum are recognized in this way, that is to say through <concord>, through the notation, through the penultimate. Whence the rule: everything that happens in some position according to the virtue of the <concord>, is said to be long. Another rule: whatever is notated long according to the organa before a rest or in [the?] place <of a concord> is said to be long. Another rule: whatever is accepted before a long rest or before a perfect concord is said to be long.)

⁷³ This is shown clearly by Reckow (Der Musiktraktat . . . Vol. 2, pp. 73-91). Nonetheless an overall approach to the performance of organal rhythm is here suggested, as well as a further indication of what organal rhythm is not. As Reckow writes so pertinently elsewhere:

Allzu wörtlich darf auch die Konkordanzregel wohl nicht genommen werden. . . .

Immerhin ist der Konkordanzregel zu entnehmen, dass der rhythmische Vortrag in einem frühen Stadium sich nach den harmonischen Gegebenheiten, nicht nach fertigen rhythmischen Modellen richtete, und es ist wahrscheinlich, dass dem Duplum-Sänger bei der Rhythmisierung auch ein gewisser Ermessensspielraum in Hinblick sowohl auf die Auswahl der hervorzuhebenden Töne als auch auf die Art (Dehnung oder Akzentuierung) und Intensität der Hervorhebung zugestanden war, zumal er zwischen den Zusammenklängen als Solist auf andere Mitwirkende keinerlei Rücksicht zu nehmen hatte.

(Das Organum, pp. 457-8)

There remains therefore a dichotomy in Garlandia's discussion, and it is one which may be seen to influence the treatment of organum in the later treatises. This issue will be considered in the course of an analysis of these treatises, beginning with the Anonymous of St. Emmeram.

The Anonymous of St. Emmeram makes crystal clear the basic and fundamental differences between the rhythm of discant and that of organum per se:

In precedenti capitulo fecit actor mentionem breuiter de discantu, qui sub certa diminutione temporum et etiam quantitate nec non et exigentia regulari per districtum terminum coartatur. In hoc autem capitulo de speciali organo quod et duplex dicitur uult actor facere mentionem, quod si per se positum sit repper- tum, more suo gradiens, regularum metas sub certa figurarum ac temporum serie distributas, transcendere aut interrumpere non ueretur, ex quo resultat irregularitas subtiliter intuenti. Cum ergo precedens capitulum per certas regulas coartetur, istud siquidem earum rectitudini sepius sit repugnans. Sicut enim regulare ante irregulare, sic precedens capitulum ordinari dicitur ante istud. [127:11-22]⁷⁴

Here a new concept has been introduced: that of irregularitas. At this time irregularis was not a simple grammatical term, but meant "contrary to the rules of the Church" or "against

⁷⁴(In the preceding chapter the author briefly made mention of discantus, which, under a fixed breaking up and also quantity of the tempora, as well as a regular measure, is confined through strict limits. But in this chapter the author wants to make mention of particular organum which is said to be of two kinds. If it is found placed per se, moving in its own manner, it is not afraid to transcend or interrupt the boundaries of the rules, distributed under a fixed series of notated signs and tempora, from which results an irregularity to him who is paying attention carefully. Since therefore the preceding chapter is confined through fixed rules, this one indeed may be more often opposed to their strictness. For just as regular is said to be arranged before irregular, so the preceding chapter is arranged before this one.)

canon law"⁷⁵ - the regula being the rule by which officers of the Church were bound. It was not used in the ordinary grammatical sense until the seventeenth century.⁷⁶ The force of the vocabulary used strongly suggests a carefree or wilful attitude ("regularum metas . . . transcendere aut interrumpere non veretur. . . .").

The final sentence is a further hint of Scholastic orderliness and rationality. The author, however, is clearly not disturbed by the wayward character of organum per se. Indeed, he reserves for it his greatest praise and enthusiasm:⁷⁷

Et scias quod ista species inter cetera cantuum genera sonorum modulos purpurat et insignit; nam per eam queque uocum sonoritas instrumentis siue naturalibus siue artificialibus concordata est reducibilis ad numerum recte uocis. Ideoque istam speciem siue illud capitulum ad consumationem huius opusculi decreuimus reservandum. [127:35-128:5]⁷⁸

⁷⁵ See Mediae Latinitas Lexicon Minus, ed. Niermeyer (Leiden: E.J. Brill, 1976); A Glossary of Later Latin to 600 A.D., ed. Souter (Oxford: The Clarendon Press, 1949, rev. ed. 1964); Revised Medieval Latin Word-List, ed. Latham (London: Oxford University Press, 1965).

⁷⁶ See Word-List, p. 260.

⁷⁷ Earlier the Anonymous of St. Emmeram had evinced similar zeal:

. . . de organo speciali, quod omne genus cantuum superat dulcedine melodie. . . . [11:25-26]

(. . . about organum speciale, which conquers all kinds of song by the sweetness of its melody. . . .)

⁷⁸ (And you should know that that species amongst the other types of music adorns and distinguishes the melodies of sounds; for through it a certain sonority of voices, concordated with either natural or artificial instruments, is reducible to the number of a recta voice. And so we decided that that species or that chapter should be reserved for the consummation of this little work.)

"Purpuro" and "insignio" are terms of embellishment and ornamentation, reaching back to late Classical times of distinction and grandeur. But the Scholastic rationalization is evident in the justification of organum per se as "reducibilis ad numerum recte vocis," the recte clearly being an attempt to counteract the irrationality of the concept modus non rectus above. This rationalization must not, however, blind us to the inalienable fact that organum per se is not to be considered as belonging to those species of musica mensurabilis that are performed in modal rhythm, i.e., discantus and copula. This is stressed once more by the Anonymous of St. Emmeram in a further gloss when he writes:

Hic dicit actor, quod organum speciale dupliciter sumitur uel consideratur scilicet aut per se aut cum alio. Si per se regularum artis deuiat a preceptis, nam per uarias concordantias distributum recte mesure seu regularis habitudinem negligit dulcedine melodie. Hinc est quia rectum modum spernere uoluit, alium qui non rectus dicitur appetendo. . . . (129:27-32)⁷⁹

By way of contrast, the Anonymous of St. Emmeram describes organum cum alio as being clearly controlled by the laws of modal rhythm:

Cum alio dicitur, quicquid profertur per aliquam rectam mensuram ut dictum est superius. . . . [127:31-32]⁸⁰

⁷⁹ (Here the author says that organum speciale is taken or considered in two ways, that is to say either per se or cum alio. If it is per se, it deviates from the precepts of the rules of the art, for, distributed through various concords, it neglects the condition of recta or regular measure by the sweetness of its melody. Hence it is that it wanted to reject the rectus mode, seeking another which is called non-rectus. . . .)

⁸⁰ (Cum alio is said to be that which is performed through a certain recta mensura as has been said above. . . .)

Ostense superius qualiter organum speciale siue duplex per se positum reperitur, in hoc loco uult actor ostendere quomodo et qualiter cum alio copulatur, dicens quod quociensconque cum alio organo fit repertum, coartatur habitudine regulari et discantus modum et ordinem induit proportionaliter in omnibus et importat. [130:22-27]⁸¹

This corresponds closely to the statement of Johannes de Garlandia:

Organum autem <cum alio> dicitur, quidquid profertur per <aliquam> rectam mensuram, ut dictum est superius. [XIII:8]⁸²

As a final discussion before his rhetorical peroration, the Anonymous of St. Emmeram gives rules for the recognition of long and short notes in organum speciale:

In fine sui capituli uult actor quandam regulam inserere generalem, que ad cognitionem tocus capituli dicitur oportuna quo ad uoces plenius et perfectius discernendas, que talis: organum speciale cognoscitur per penultimam, per concordantiam, per figuram. Alia insequitur regula, quod quicquid inuenitur ante longam pausationem, dicitur esse longum. Tercia et ultima est, quod quicquid figuratur longum secundum modum organi ante perfectam concordantiam, dicitur esse longum. [130:28-35]⁸³

⁸¹ (Having shown above in what way organum speciale or duplex placed per se is found, in this place the author wants to show how and in what way it is joined with another [cum alio], saying that whenever it is found with another organum, it is confined by the regular condition, and takes on and brings in the manner and order of discantus proportionally in all things.)

⁸² (Organum <cum alio> is said to be that which is performed according to <some> recta mensura, as has been said above.)

⁸³ (At the end of his chapter the author wants to introduce a certain general rule, which for the understanding of the whole chapter is said to be suitable, whereby the voices may be more fully and more perfectly discerned, which is this: organum speciale is understood [? recognized] by the penultimate, by concord, by notation. Another rule follows, that whatever is found before a long pause, is said to be long. The third and last is, that whatever is notated long according to the way of organum before a perfect concord, is said to be long.)

It will be noticed here that some small but critical changes have been made in the rules of consonance as handed down by Garlandia. In the first place, the rules are established for organum speciale as a whole, which includes both organum per se and organum cum alio. This is something of a puzzle. Several times in the course of this final chapter, the author uses the word duplex as an alternative adjective to the word specialis:

. . . organi specialis quod et duplex dicitur . . .
[127:3]⁸⁴

In hoc autem capitulo de speciali organo quod et duplex dicitur. . . . [127:14-15]⁸⁵

. . . organum speciale sive duplex. . . . [128:26]⁸⁶

. . . organum speciale sive duplex. . . . [130:23]⁸⁷

Nowhere, however, does the author use the alternative appellation when describing the division of organum speciale into two kinds:

Notandum quod organum dicitur multipliciter, aut per se, aut cum alio. [127:23-24]⁸⁸

Hic dicit actor, quod organum speciale dupliciter sumitur uel consideratur scilicet aut per se aut cum alio.
[129:27-29]⁸⁹

⁸⁴ (. . . of organum speciale which is said to be duplex. . .)

⁸⁵ (In this chapter, however, about organum speciale, which is said to be duplex. . .)

⁸⁶ (. . . organum speciale or duplex. . .)

⁸⁷ (. . . organum speciale or duplex. . .)

⁸⁸ (It should be noted that organum is said in many ways, either per se or cum alio.)

⁸⁹ (Here the author says that organum speciale is taken or considered in two ways, that is to say either per se or cum alio.)

Indeed, the last sentence includes the adverb dupliciter in place of the more common alternative adjective duplex, and by its assonance glosses over the omission in this case.

There is at least an ambiguity in the terminology. Clearly the author could not have used the expression organum duplex when speaking of a further subdivision into organum cum alio. Indeed, he deliberately does not do so, as has been shown. The likelihood, therefore, is that in giving rules for the recognition of longs and shorts in organum speciale, the Anonymous of St. Emmeram was considering only the species organum per se. Indeed, we have already been informed that one subdivision of organum speciale, that is to say organum cum alio, takes on the rhythm of discant, i.e., modal rhythm:

. . . qucciensconque cum alio organo fit repertum,
coartatur habitudine regulari et discantus modum et
ordinem induit proportionaliter in omnibus et im-
portat. [130:25-27]⁹⁰

The ambiguity may stem from the phraseology of Garlandia himself, whose treatise was so patently a model for that of the Anonymous of St. Emmeram. For the passage on the rules of consonance in Garlandia begins:

Longae et breves in organo tali modo dinoscuntur,
scilicet . . . [XIII:11]⁹¹

rather than:

Longae et breves in organo per se tali modo dinoscuntur,
scilicet . . .⁹²

⁹⁰ (. . . whenever it is found with another organum, it is confined by the regular condition, and takes on and brings in the manner and order of discantus proportionally in all things.)

⁹¹ (Longs and breves in organum are recognized in this way, that is to say . . .)

It is unlikely that either of these authors would be giving rules for the establishment of long and short notes in organum cum alio, since, as they both make clear:

Organum autem <cum alio> dicitur, quidquid profertur per <aliquam> rectam mensuram, ut dictum est superius. [Garlandia XIII:8]⁹³

Cum alio dicitur, quicquid profertur per aliquam rectam mensuram ut dictum est superius. [Anon. St. Emmeram 127:31-32]⁹⁴

The rules for recta mensura are those with which both authors have been primarily concerned for the majority of their treatises, before discussing organum per se. The assumption that the authors are in fact concerned with organum per se and the rules for its rhythm in this case is confirmed by the phraseology of Anonymous IV, who, in a parallel passage towards the end of his treatise, writes:

In puro autem organo multiplici via et modo longae et breves cognoscuntur. [86:13-14]⁹⁵

An actual change made by the Anonymous of St. Emmeram in the rules as handed down by Garlandia concerns the subtle suppression of Garlandia's first rule, the most important and significant of the three. By turning Garlandia's introductory statement:

Longae et breves in organo tali modo dinoscuntur . . . [XIII:11]⁹⁶

into a so-called regulam generalem:

⁹² (Longs and breves in organum per se are recognized in this way, that is to say . . .)

⁹³ (Organum <cum alio>, however, is said to be that which is performed through <some> recta mensura, as has been said above.)

⁹⁴ (Cum alio is said to be that which is performed through some recta mensura as has been said above.)

⁹⁵ (In organum purum, however, the longs and breves are recognized by many ways and methods.)

⁹⁶ (Longs and breves in organum are distinguished in this way . . .)

In fine sui capituli uult actor quandam regulam inserere generalem, que ad cognitionem tocius capituli dicitur oportuna quo ad uoces plenius et perfectius discernendas, que talis: organum speciale cognoscitur per penultimam, per concordantiam, per figuram. [130:28-32]⁹⁷

the St. Emmeram Anonymous manages to leave out Garlandia's first rule entirely. The statement is descriptive rather than prescriptive.⁹⁸ The remaining rules are of course insufficient as guidelines for a formation of rhythmic practice for organum per se.

The final chapter of the treatise of Anonymous IV contains the most detailed treatment of organum purum in all three authors. The chapter begins with a discussion of modi irregulares:

Septimum capitulum tractat de modis irregularibus; qui modi dicuntur voluntarii et sunt multiplices. [84:12-13]⁹⁹

The force of the word irregularis has been discussed before.¹⁰⁰ The word voluntarius is also significant, since it has overtones of the wilfulness in which the Anonymous of St. Emmeram seemed to take such delight.¹⁰¹ It seems that what is being described here is a performance technique. The author appears to be struggling for a vocabulary to describe subtleties that are not amenable to description. A wide variety of unusual note-lengths is described: minima, longa debita, brevis parua, nimis longa,

⁹⁷ (At the end of his chapter the author wants to introduce a certain general rule, which for the understanding of the whole chapter is said to be suitable, whereby the voices may be more fully and more perfectly discerned, which is this: organum speciale is understood [?recognized] by the penultimate, by concord, by notation.)

⁹⁸ Cf. Reckow, Der Musiktraktat . . . Vol. 2, p. 44, footnote 21.

⁹⁹ (The seventh chapter deals with irregular modes; and these modes are called voluntarii and are numerous.)

¹⁰⁰ See above, pp. 26-7.

¹⁰¹ See Translation, footnote 44.

longa nimia, longa tarda, mediocris, festinans. It seems likely that this complex list is the result of a desire to explain rationally a method of performance that was not expressed, or expressible, by the notation:

Nota, <quod ad> cognitionem puri organi praedicti modi irregulares sufficient cum quibusdam aliis postpositis. Iterato nota, quod sufficit de modo figurandi iuxta descriptionem eorundem, ut superius plenius patet; et est figuratio consimilis sicut in aliis regularibus, quamvis in aliquibus sit differentia etc. [85:23-27]¹⁰²

Even the length of the rest is left up to the performer, clearly implying free or improvisatory performance:

Pausationes vero valde voluntarie procedunt secundum quod melius videbitur cantori vel operatori . . . [85:28-29]¹⁰³

The association with organum purum is clear, as it is also above in the statement:

Et iste modus dicitur primus irregularis, et bene competit organo puro. [84:19-20]¹⁰⁴

The following chart gives a simplified scheme of the irregular modes as described by Anonymous IV, and reflecting the ligature patterns implicit in his description.¹⁰⁵

¹⁰² (Note <that for> the understanding of organum purum the aforementioned irregular modes will suffice with certain other things mentioned later. Again note that the description of them suffices for the method of their notation, as is made clear more fully above; and their notation is exactly the same as in the other regular modes, although in some there is a difference etc.)

¹⁰³ (Rests, however, proceed very voluntarily according to what seems best to the singer or performer . . .)

¹⁰⁴ (And that mode is called the first irregular mode, and is well suited for organum purum.)

¹⁰⁵ A notational scheme, in modern equivalents, is given in the article "Notation" in The New Grove Dictionary of Music and Musicians. There is a danger, however, in transcription, as there is in translation. Both add a further layer of obscurity to issues where what is needed is the closest possible contact with the original.

It can be seen from Anonymous IV's description that the patterning and arrangement of these notes, despite their occasionally curious and unusual names, follows the ligature patterns of the rhythmic modes in their regular format. It seems, therefore, that Anonymous IV is attempting, through the invention of a new system of modes that he calls irregular, to rationalize and systematize a rhythm that in its very nature was not amenable to such systematization.¹⁰⁶ Even the positing of the system of irregular modes, however, does not cover the flexible rhythm of organum purum. And Anonymous IV clearly recognizes that fact, for he describes a seventh mode:

Et iuxta septem dona spiritus sancti est septimus modus nobilissimus et dignissimus, magis voluntarius et placens. Et iste modus est modus permixtus et communis et est de omnibus duobus supradictis et de omnibus tribus et de omnibus quatuor etc. Et proprie loquendo denominatur organum purum et nobile etc. [85:18-22]¹⁰⁷

Here, finally, is the answer to the problem of how to rationalize the rhythm of organum purum. By describing a mode that is

¹⁰⁶Reckow sees this rather differently:

Der Anstoss zur Bildung des Systems der sechs Modi irregulares ist jetzt klar zu erkennen. Es ist die in allgemeinerer Form bereits bei Franco beobachtete Tendenz, auch die Organum-Melismen (genauer: neben der Copula auch das Organum per se) modalrhythmisch eindeutig zu erfassen, um auf diese Weise das Organum purum den übrigen (ausnahmslos modalrhythmisch komponierten) Species der modernen Mehrstimmigkeit anzugleichen.

(Der Musiktraktat . . . Vol. 2, p. 56)

¹⁰⁷(And in accordance with the seven gifts of the Holy Spirit is the seventh mode--most noble and worthy, more voluntary and pleasing. And this mode is a mixed and common mode, and it is made up of all the two-note ligatures mentioned above, and all the three-note ligatures, and all the four-note ligatures etc. And properly speaking it is called pure and noble organum etc.)

made up of all possible combinations of ligatures, and is permixtus et communis,¹⁰⁸ any possibility can be covered and

¹⁰⁸ Permixtus and communis are general words with common meanings ("mixed together, commingled," and "general, universal." However, it is important to note that both words also have specialized meanings in the studies of the Trivium. Cicero used the word permixtus to refer to a confused type of speech (Orator ad M. Brutum 56, 187 [ed. Orelli and Baiter, Opera Omnia, vol. 1 [Zürich: Orelli & Füsslin, 1845]]):

. . . quibus (intervallis longis et brevibus) implicata atque permixta oratio.

(. . . a confused [with long and short spaces] and permixta speech.)

Communis in Grammar had several meanings. It denoted a verb that had both active and passive force. See, for example, Priscian, Institutiones Grammaticae 8, 8 (Keil, Grammatici Latini, vol. 2, p. 374):

(Verba) in "or" vero terminantia tres species habent: passivam, quae ex activis nascitur et semper passionem significat exceptis supra dictis; communem, quae una terminatione tam actionem quam passionem significat; deponentem, quae cum similem habeat communibus positionem in "or" desinendi, tamen deponens vocatur. . . .

([Verbs] that end in "or" have three species: passive, which derives from the active ones and always signifies the passive except as said above; communis, which signifies both the active and the passive with the same ending; and deponent, which, although it has a similar position to the communis verbs with its ending in "or," yet is called deponent. . . .)

Donatus also used the word in this sense (Ars Grammatica 2, 12 [ed. Keil, Grammatici Latini, vol. 4, p. 383]):

(Verba) communia sunt quae "r" littera terminantur et in duas formas cadunt, patientis et agentis, ut scrutor criminator: dicimus enim scrutor te et scrutor a te, criminator te et criminator a te.

([Verbs] are communis which end with the letter "r" and fall into two forms: passive and active like scrutor and criminator; for we say "I examine [scrutor] you; and I am examined [scrutor] by you," "I accuse [criminator] you," and "I am accused [criminator] by you.")

Communis was also used to refer to a word of both masculine and feminine (or masculine, feminine, and neuter) gender. See Charisius, Institutiones Grammaticae 2, 6 (Keil, Grammatici Latini, vol. i, p. 153):

therefore, of course, any rhythm. There is evident relief in finding such a neat solution; the so-called mode is carefully aligned with spiritual authority ("iuxta septem dona spiritus sancti . . ."), and Anonymous IV, while sharing the Anonymous of St. Emmeram's aesthetic rapture over the beauty of the effect, also unequivocally identifies this seventh mode with organum purum: "Et proprie loquendo denominatur organum purum et nobile etc." The seventh mode "is called" organum purum et nobile etc.¹⁰⁹

The final proof that, despite his invention of the concept

Genera nominum sunt tria vel, ut quibusdam placet, quinque, masculinum femininum neutrum commune promiscuum. . . . Commune autem ex his fit duobus modis. Sunt communia aut ex genere masculino et feminino, ut hic et haec canis, aut ex genere masculino feminino et neutro, ut hic et haec et hoc [felis].

(There are three types of nouns, or as some people think, five: masculine, feminine, neuter, communis, and promiscuous. . . . Communis occurs in two ways. Communis nouns are either masculine and feminine, as with dog [masculine and feminine]; or masculine, feminine, and neuter, as with [cat] [masculine, feminine, and neuter].)

Finally, and most significantly for the present context, communis was the word used to describe a syllable that could be either long or short (Probus? De ultimis syllabis liber ad Caelestinum XV, 1 [Keil, Grammatici Latini, vol. 4, p. 258]):

Communes syllabae naturales duobus modis incurrunt, aut in singulis vocalibus aut duabus coniunctis quas Graeci diphthongos vocant. Communis syllaba . . . est enim longa in hoc versu:

Glauco et Panopeae et Inoo Melic.,
in isto autem brevis eadem [producta], "te Corydon o Alexi."

(Natural communis syllables occur in two ways, either in single vowels or in two joined together which the Greeks call diphthongs. For a communis syllable is long in this verse: "Glauco et Panopeae et Inoo Melic.," but the same one is short in this verse, "Te Corydon o Alexi.")

¹⁰⁹Compare Anonymous IV's rationalizations with those of Jacobus of Liège. See Reckow, Der Musiktraktat . . . Vol. 2, p. 60, footnote 5.

of the irregular modes, Anonymous IV clearly does not view the rhythm of organum purum as modal, is given in the sixth chapter of the treatise, where he writes:

Est et sextum volumen de organo in duplo ut Iudea et Ierusalem et Constantes, quod quidem numquam fit in triplo neque potest fieri propter quendam modum proprium, quem habet extraneum aliis, et quia longae sunt nimis longae et breves nimis breves. Et videtur esse modus irregulativus quoad modos supradictos ipsius discantus, quamvis in se sit regularis etc. [82:20-25]¹¹⁰

It is not "Iudea et Ierusalem" (and its verse Constantes) which cannot be set in triplo (there is in fact such a setting),¹¹¹ but organum in duplo in general. Despite the rationalization of the modus irregulativus, and "quamvis in se sit regularis,"¹¹² the rhythm is too free to allow another part to

¹¹⁰ (And there is a sixth volume of organum in duplum like "Iudea et Ierusalem" and "Constantes," which indeed never occurs in triplum, nor can occur that way, on account of a certain mode of its own which it has that is different [extraneum] from the others, and because the longs are too long and the breves too short. And it seems to be an irregular [irregulativus] mode compared to the above-mentioned modes of the discant itself, although it is regular in itself etc.)

¹¹¹ F. 46^v and W₂.6.

¹¹² This corresponds to the Anonymous of St. Emmeram's formulation:

Et nota quod licet <organum per se> rectam relinquat mensuram, tamen habet modum et mensuram in se. [130:4-5].

(And note that although <organum per se> abandons recta mensura, yet it has mode and mensura in itself.)

(The tamen was given from the manuscript in place of Sowa's incorrect reading cum, by Reckow [Der Musiktraktat . . . Vol. 2, p. 61, footnote 6].)

Reckow is quite wrong in saying that the Anonymous of St. Emmeram discusses mensural notation in connection with organum purum, and that the same theorist believes that organum purum can be extended to three parts (Der Musiktraktat . . . Vol. 2, pp. 43 and 45). Reckow has mistakenly associated organum speciale with organum per se. In fact, as we have seen, organum

6. Quaternariae: Omnis punctus - longus si concordans
- brevis si discordans
7. Duo puncta in eodem sono, sive in concordantia sive non,
- longa florata.
8. Currentes aequaliter pro posse et velociter descendunt.
9. Sunt quandoque plurimae longae, sive concordantes sive non.
10. Est quaedam duplex longa florata. Et illa ponitur in principio . . . semper erit concordans.
11. Finis multiplici modo finitur.¹¹³

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- (1. Every first note - longa parva, tarda, or media. If concordant, the tenor will be sounding or held over; if not concordant, the tenor will be silent or remain quiet.
2. Every penultimate note before a long rest is long.
3. Every penultimate note perceived long by mode will be long, whether it is concordant or not.
4. Binariae: first note - long if it is concordant
- short if it is discordant (except if penultimate)
last note - long if it is concordant
- minime [?] if it is discordant (except if penultimate)
5. Ternariae: first note - long if it is concordant
- short if it is discordant
second note - long if it is concordant
- short if it is discordant (except if penultimate)
last note - long if it is concordant
- short if it is discordant (except if penultimate)
6. Quaternariae: every note - long if it is concordant
- short if it is discordant
7. Two notes on the same pitch, whether in a concord or not - longa florata.
8. Currentes descend quickly and as equally as possible.
9. There are sometimes several longs, whether concordant or not.
10. There is a certain duplex longa florata. And it is placed in the beginning. . . . It will always be concordant.
11. The ending can finish in many ways.)

The net result of these rules is, however, not very different from that proposed by Garlandia. With certain specific exceptions (opening notes, penultimate notes before a long rest, two notes on the same pitch, currentes, occasional passages of consistently long notes, and some endings), a note is long if it is consonant, short if it is dissonant. If this prescription is rigidly followed in practice, it proves to be unsatisfactory.¹¹⁴ Reckow has suggested that the rules should be modified by taking into account the "Faktur des Melismas"¹¹⁵ - that is to say by making long those notes that are structurally significant in the formation of the melody. This leads, as Reckow readily admits, to two problems. Firstly, this does not allow for a differentiation between notes that are structurally more significant than others; and secondly, it leaves open to individual interpretation the question of the basic structure of each melisma.

There are further problems. If the "rules of consonance" are to be considered as formative elements in the rhythmicization of organum purum, then it must be agreed that organum purum differs not only rhythmically, but also harmonically, from discantus.

There follows a transcription of a passage from a discant section in which the modal character of the music is unambiguous:

¹¹⁴ See Reckow, Der Musiktraktat . . . Vol. 2, p. 80; and cf. Apel, "From St. Martial to Notre Dame," Journal of the American Musicological Society 2 (1949):145-158.

¹¹⁵ See Der Musiktraktat . . . Vol. 2, pp. 80-81; and Das Organum, p. 458.

Transcription of discant section (F:65)

□ denotes modally long notes that are dissonant

▽ denotes short notes that would be long "in consonantia"

vi- de- bi- tis- au- xi-

li- um

It can be seen that in this passage there are several instances of modally long notes that are dissonant, as well as short notes that would be long according to the "rules of consonance." It is of course possible that organum purum and discantus are supposed to be governed by different harmonic concepts, but this is nowhere specifically stated by the theorists.

Also, of course, the melodic flow of an individual melisma would have to take into account the distribution of consonances and dissonances in a given ambitus of notes. The allowable consonances are given by Garlandia, Anonymous St. Emmeram, and Anonymous IV as follows:

Sic apparet, quod sex sunt species concordantiae, scilicet unisonus, diapason, diapente, diatesseron, ditonus, semiditonus. [Garlandia IX:12]¹¹⁶

¹¹⁶(Thus it appears, that there are six species of concord,

Et ideo sex esse concordantias dicimus et non plures, quarum prior est unisonus, secunda dyapason, tertia dyapente, quarta dyatessaron, quinta ditonus, sexta et ultima semiditonus. [Anonymous St. Emmeram 117:12-15]¹¹⁷

. . . et hoc secundum concordantiam unisoni vel diapason pro concordantia vel concordantiis perfectis vel diatessaron diapente pro concordantiis mediis vel semiditono ditono <pro concordantiis imperfectis> . . . [Anonymous IV 77:25-28]¹¹⁸

The dissonances are:

. . . semitonium, tritonus, ditonus cum diapente, tonus cum diapente, semiditonus cum diapente, tonus et semitonium cum diapente . . . [Garlandia IX:34]¹¹⁹

It is in the question of melodic sequence that the greatest tension appears to exist - between, on the one hand, the structural aims of the music, and, on the other, the rules of consonance. The following transcriptions show this dichotomy clearly:

that is to say the unison, octave, fifth, fourth, major third, minor third.)

¹¹⁷ (And so we say that there are six concords and not more, of which the first is the unison, the second the octave, the third the fifth, the fourth the fourth, the fifth the major third, the sixth and last the minor third.)

¹¹⁸ Cf. 85:31-33.

(. . . and this according to the concord of the unison or octave for a concord or perfect concord, or fourth or fifth for the middle concords or minor third or major third for the imperfect concords . . .)

¹¹⁹ Cf. Anonymous St. Emmeram 121:1-12; Anonymous IV, 77:24-78:1, 79:1-5, 80:8-10.

(. . . semitone, tritone, major third with a fifth, tone with a fifth, minor third with fifth, tone, and semitone with a fifth . . .)

Melodic sequences over held-tenor (rhythmicized by "rules of
consonance")

	[F. 67 ^v]
	[F. 71]
	[F. 92]
	[W ₁ . 18]

If we assume that melodic sequences are to be performed in a fashion that is rhythmically consistent, then the rules of consonance are counter-productive in these instances. As Reckow says:

Denn hier ist die Wiederholung gleicher Melodieglieder kompositorisch absolut vorrangig, und die Gleichartigkeit kann beim Vortrag nur zum Ausdruck gebracht werden, wenn die einzelnen Glieder auch rhythmisch gleich erklingen.¹²⁰

This difficulty, however, is resolved if melodic sequence is considered the basic and identifying element of copula.¹²¹ In these cases, then, modal rhythm comes into play, since the

¹²⁰Reckow, Der Musiktraktat . . . Vol. 2, p. 86.

¹²¹See Chapter II.

species copula is performed recto modo, and, the passages being no longer considered as organum purum, the rules of consonance do not apply.

Anonymous IV has provided two different ways through which the rhythm of organum purum is to be structured - the irregular modes and the rules of consonance. The system of irregular modes proves to be a concept through which note values outside the normal modal values can be made to fit a predetermined scheme. The rules of consonance, detailed as they are, would need to be supplemented by further precepts to be of practical value.¹²² Both systems attempt to describe a practice that was far different from rhythmic practices current at the time of writing.¹²³ If the tentative chronology of the major thirteenth-century theorists established in the Appendix is correct, "Franconian" rhythmic principles were already known when Anonymous IV compiled his treatise. Clearly, at any rate, Anonymous IV knew the treatise of Franco.¹²⁴ And by the 1280's even modal rhythm, let alone the rhythm of organum purum, had become out-

¹²²Eggebrecht feels that "Die Konkordanzregel . . . scheint . . . in der geforderten starren Anwendung dem 'untheoretischen,' irrationalen Grundzug dieser Kunst ebensowenig zu entsprechen wie die Versuche modal-rationaler Lesung." ("Organum purum," p. 107.)

¹²³Reckow felt that Anonymous IV's presentation of differing solutions to the problems of organal rhythm was an attempt to provide a survey of theoretical teaching up to that point, comparable to Hieronymus of Moravia's presentation of different positiones on music theory (see Reckow, Der Musiktraktat . . . Vol. 2, pp. 67-68). It is also possible that the two systems represent different historical stages (see Reckow, Der Musiktraktat . . . Vol. 2, pp. 34 and 64; and Flotzinger, "Organum," in The New Grove).

¹²⁴See Appendix.

dated. However much Anonymous IV was trying to preserve, discuss, and transmit the musical practices of the school of Notre Dame, that school, and the performance characteristics it entailed, had been overtaken long before he wrote.¹²⁵ It is not

¹²⁵ Indeed, there are even later manuscripts that give mensurally notated versions of some organa pura (see Reckow, Der Musiktraktat . . . Vol. 2, p. 50ff), which would be a logical progression of the increasingly modally oriented notation and theory in the course of the thirteenth century. It is this more than anything else that has probably led modern researchers astray. This is of course why the Notre Dame manuscripts themselves cannot be relied upon for rhythmic interpretations of the organum purum. They are too much after the event, as well as too much at variance with each other (see Reckow, Das Organum, pp. 458-459). Either the scribe imposed their own modal structure on the notes as they wrote, or they used arbitrary sequences of ligatures. In any case, both the Anonymous of St. Emmeram and Anonymous IV tell us that the notation is no guide:

. . . more suo gradiens regularum metas sub certa figurarum ac temporum serie distributas transcendere aut interrumpere non veretur . . . [Anon. St. Emmeram, 127: 16-18].

(. . . moving in its own manner, it is not afraid to transcend or interrupt the boundaries of the rules, distributed under a fixed series of notated signs and tempora.)

. . . et est figuratio consimilis sicut in aliis regularibus . . . [Anon. IV, 85:26].

(. . . and their notation is exactly the same as in the other regular modes . . .)

By the early fourteenth century, the rhythm of organum purum was already almost completely lost, as Jacobus de Liège complains (Speculum Musicae [ed. Bragard, Corpus Scriptorum de Musica 3, American Institute of Musicology, 1973] 7, 46 [p. 89]):

Sed cantus alios multos dimiserunt quibus in propria forma non utuntur, sicut fecerunt Antiqui, ut cantus organicos mensuratos vel non ubique mensuratos ut est organum purum vel duplum de quo forsan pauci sciunt Modernorum.

(But they abandoned many other types of music which they did not use in the proper form, as the Ancients did, like organum purum or duplum, about which perhaps few of the Moderns have any knowledge.)

surprising that, in describing those practices, he should give directions that are not rigidly applicable. Nor is it surprising that in so doing he should use explanations that appear to be rational and all-inclusive. The Scholastic method informs all three treatises considered here, and it is precisely the Scholastic method to subsume irrationality into a rational order. The rhythm of organum purum was presumably not totally irrational. It was performed after all by rational men. But the secret of its rhythm is not revealed to us by the modal system, nor by the applications of the irregular modes or the rules of consonance. Indeed, it may never be revealed to us at all.

CHAPTER II

COPULA

The copula is without doubt the least clearly understood of the three species of Notre Dame music. Theories have ranged from Apel's suggestion of a "short coda,"¹ to William Waite's "fractio modi,"² to Reckow's notion of strophic construction.³ It has even been suggested (in the case of Garlandia's chapter on the copula) that the text is corrupt,⁴ or the wording inconsistent.⁵ Reckow has also tried to demonstrate that the later theorists developed a concept of the copula that was completely different from that of Garlandia.⁶

¹Willi Apel, The Notation of Polyphonic Music 900-1600, 5th edition (Cambridge: The Mediaeval Academy of America, 1953), pp. 234, 237, 248, 256, 446.

²William G. Waite, The Rhythm of Twelfth-Century Polyphony: Its Theory and Practice, Yale Studies in the History of Music, vol. 2 (New Haven: Yale University Press, 1954), pp. 115-119.

³Fritz Reckow, "Copula," in Handwörterbuch der musikalischen Terminologie (Wiesbaden: Franz Steiner, 1971-); idem, Die Copula: Über einige Zusammenhänge zwischen Satzweise, Formbildung, Rhythmus und Vortragsstil in der Mehrstimmigkeit von Notre-Dame, Akademie der Wissenschaften und der Literatur, Abhandlungen der Geistes- und Sozialwissenschaftlichen Klasse, vol. 13 (Wiesbaden: Franz Steiner, 1972).

⁴Reimer, Johannes de Garlandia . . . Vol. 2, pp. 35-37.

⁵Ernest H. Sanders, "Consonance and Rhythm in the Organum of the 12th and 13th Centuries," Journal of the American Musicological Society 33 (1980):264-286.

⁶Reckow, "Copula," in Handwörterbuch, pp. 5-7; and Die Copula, pp. 45-54.

In this chapter it will be shown that the theory of the copula remained consistent throughout the period under consideration, that the text of the theorists as established by the latest editions is reliable, and that by dint of a close and careful analysis of these texts a convincing interpretation of the copula can be achieved - one that is directly corroborated by the musical sources.

Since Johannes de Garlandia is the earliest of the Notre Dame theorists, and since, as will clearly be shown, his chapter on the copula was a direct and crucial influence on the later writers, the information contained in his treatise will be considered first.

The Copula According to Johannes de Garlandia

Garlandia's discussion of copula appears towards the end of his treatise and is given here in full:

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. Alio modo dicitur copula: copula est id, quod profertur recto modo aequipollente unisono. Alio modo dicitur: copula est id, ubicumque fit multitudo punctorum. Punctus, ut hic sumitur, est, ubicumque fit multitudo tractuum. Et ista pars dividitur in duo aequalia. Unde prima pars dicitur antecedens, secunda vero consequens, et utraque pars continet multitudinem tractuum. Unde tractus fit, ubicumque fit multitudo specierum univoce, ut unisoni aut toni secundum numerum ordinatum ordine debito. Et haec sufficiant ad <copulam>.
[XII:1-9]⁷

⁷Since a translation of this passage is developed during the course of this chapter, the English is not given here.

The most thorough analysis of this passage to date is certainly that of Fritz Reckow.⁸ William Waite's views⁹ are vitiated from the outset by his conviction that modal rhythm is to be applied to organum purum, thus obscuring the first distinction between organum and copula - that organum ". . . profertur secundum aliquem modum . . . non rectum,"¹⁰ and copula ". . . profertur recto modo."¹¹

Reckow traces the word copula from its grammatical antecedents in late Antiquity to its use as a poetical term in the late twelfth century, before investigating its appearances in music theory. In so doing, he touches upon what proves to be the key to a proper understanding of the Garlandia passage:

⁸His views are to be found in "Copula," in Handwörterbuch . . . p. 4, and in fuller form in Die Copula . . . pp. 12-28.

⁹William Waite, The Rhythm of Twelfth-Century Polyphony, pp. 115-119; idem, "Discantus, Copula, Organum," Journal of the American Musicological Society 5 (1952):77-87; idem, "Johannes de Garlandia, Poet and Musician," Speculum 35 (1960): 179-195. Cf. per contra my Chapter I.

¹⁰Garlandia XIII:4.
(. . . is performed according to a certain mode . . . that is non-rectus.)

The elliptical nature of this sentence in its complete form ("Organum per se dicitur id esse, quidquid profertur secundum aliquem modum non rectum, sed non rectum.") led Coussemaker to emend the "sed" to an "aut," thus fatally obscuring the sense for many later readers. Reckow's discussion and emendation of this passage (Der Musiktraktat . . . Vol. 2, pp. 35-37) are sensible but unnecessary, as Reimer shows (Johannes de Garlandia . . . Vol. 2, pp. 37-38). Reckow later accepted Reimer's reading ("Das Organum," in Gattungen . . . p. 457, footnote 82). The sentence as it stands means quite simply: "Organum per se is said to be that which is performed according to a certain mode that is not a rectus mode, but a non-rectus mode."

¹¹Garlandia XII:3.
(. . . is performed with a rectus mode.)

Als sprachphilosophischer Terminus für das Verbum als "Verbindung" von Subiectum und Praedicatum ist copula seit der Frühscholastik bezeugt. Abaelards Dialectica (nach 1125) dürfte eine der ersten Quellen für diesen Sprachgebrauch sein.¹²

However, he does not pursue this line of thought any further, nor does he apply it to the Garlandian passage in particular.

The primary influence on the language of Garlandia's discussion of the copula is that of mediaeval Logic.¹³ Its terminology saturates this passage, as does also the terminology of Grammar, which was an essential component of dialectical investigation. The Scholastics placed Logic at the center of their philosophical concerns. Peter of Spain, who taught at the University of Paris until about 1245¹⁴ and very possibly contemporaneously with Johannes de Garlandia,¹⁵ wrote:

Dialectica est ars artium, scientia scientiarum, ad omnium methodorum principia viam habens. Sola enim dialectica probabiliter disputat de principiis omnium aliarum scientiarum. Et ideo in acquisitione omnium aliarum scientiarum dialectica dicitur esse prior.¹⁶

¹²Reckow, "Copula," in Handwörterbuch, p. 2.

¹³For an example of a different use of dialectics as a frame of reference in music theory, see Hans Heinrich Eggebrecht and Frieder Zamminer, Ad Organum Faciendum (Mainz: B. Schott's Söhne, 1970), p. 49 and pp. 83-89.

¹⁴See Joseph Mullally, The Summulae Logicales of Peter of Spain (Notre Dame, Indiana: The University of Notre Dame, 1945), p. xviii. The Summulae was enormously important as a Logic textbook in the thirteenth century, both because of its nature as a summary of typical currents in mediaeval Logical thought, and because of the fame its author later acquired as Pope John XXI.

¹⁵See Reimer, Johannes de Garlandia . . . Vol. 1, pp. 1-17, and cf. my Appendix.

¹⁶Petrus Hispanus, Summulae Logicales, Tractatus I. Quoted

And in the same way that in the fourth and third centuries B.C. the interests of Aristotle's disciples had turned away from the Logical quest for truth to the grammatical construction of a proposition, so, too, in the Middle Ages, Grammar was pressed into the service of Logic.

In the Commentum super Priscianum of Petrus Heliae (mid-twelfth century), Grammar and Logic are linked as one, and this symbiosis reaches its most developed form in the concept of the "modi significandi" of Martin of Dacia and others - the connecting of that which is thought to that which is designated by words. This theory is discussed most fully in a work of John of Dacia (fl. 1280), entitled, significantly, Grammatica Speculativa.¹⁷

The words that are used in their Grammatical or Logical sense in the Garlandia passage, or are influenced by the terminology of Logic or Grammar, are the following: copula, valet, aequipollente, multitudo, aequalia, antecedens, consequens, specierum, and univoce. Each of these will be analyzed in turn.

by Mullally, Summulae, p. xxi, footnote 1.

(Dialectic is the art of arts, the science of sciences, having its course according to the principles of all methods. For only dialectic can credibly discuss the principles of all the other sciences. And so in the acquisition of all the other sciences dialectic is said to be the first.)

¹⁷See James J. Murphy, Rhetoric in the Middle Ages: A History of Rhetorical Theory from St. Augustine to the Renaissance (Berkeley: University of California Press, 1974), p. 155. A clear and concise précis of the modi significandi is given in Anton Dumitriu, History of Logic (Tunbridge Wells: Abacus Press, 1977), vol. 2, pp. 139-141.

Copula appears with three distinct branches of meaning in Logical thought. Firstly it is used to describe the verb "to be" in a categorical proposition:¹⁸

Propositionum alia categorica, alia hypothetica. Categorica est illa, quae habet subiectum et praedicatum sicut partes principales, sive ut "homo currit;" in hac enim propositione "homo" est subiectum, "currit" vero praedicatum et quod coniungit unum cum alio dicitur esse "copula," quod patet in resolvendo sic: "homo currit" - "homo est currens." Hoc nomen quod dico "homo" est subiectum et "currens" praedicatum et hoc verbum "est" copulat unum cum altero.¹⁹

This is the primary meaning of "copula" in the terminology of mediaeval Logic, and this in itself would be sufficient to explain the infusion of Logical terms into the rest of Garlandia's description. However, there are further resonances to the word.

A copulative proposition was said to be one in which two categorical propositions were joined by the conjunction "et":

Propositionum hypotheticarum alia est conditionalis, alia copulativa, alia disiunctiva. . . . Copulativa est, in qua coniuguntur duae categoricae per hanc coniunctionem "et," ut "Socrates currit et Plato disputat."²⁰

¹⁸ Aristotle had already replaced all the verbs in judgments with the single statement ἔστι or οὐκ ἔστι.

¹⁹ Petri Hispani Summulae Logicales, ed. I.M. Bochenski (Freiburg: Marietti, 1947), 1.07 (p. 3). The word is first established in this sense by Abelard, as Reckow has already pointed out. See S. Heinemann, "Zur Geschichte der grammatischen Terminologie im Mittelalter," Zeitschrift für Romanische Philologie 79 (1963):24.

(Some propositions are categorical, some hypothetical. Categorical is that which has the subject and predicate as principal parts, as in "homo currit." For in this proposition, "homo" is the subject, "currit" the predicate, and that which joins one to the other is said to be the "copula." This is clear in the resolution of the proposition thus: "homo currit" - "homo est currens." The word "homo" is the subject and "currens" the predicate, and the verb "est" links [copulat] one with the other.)

²⁰ Bocheński, 1.22 (pp. 7-8). This usage may also be found

And finally, "copulatio" is the characterization of a noun by an adjective. This usage appears in Boethius and Abelard,²¹ and is succinctly stated by Petrus Hispanus:

Copulatio est acceptio termini adiectivi pro aliquo.²²

Given the strength and multiplicity of the Logical connotations to the word copula, it is therefore not surprising that Johannes de Garlandia should make such extensive use of Logical and Grammatical terms when describing the musical copula.

The remainder of these terms may be elucidated as follows:

Valet was used to denote the appropriateness or validity of an argument, as, "valet consequentia" (the argument is sound.)²³

Aequipollentia was a central term in Logic, referring to the equipollency of certain propositions. Petrus Hispanus explains aequipollentia at length:

in the Summa Logicae of William Ockham:

Opposita contradictoria copulativae est una disiunctiva composita ex contradictoriis partium copulativae.

(The contradictory opposite of a copulative proposition is a disjunctive one made up of the contradictories of the parts of the copulative proposition.)

(Quoted in Philotheus Boehner, Medieval Logic [Manchester University Press, 1952], p. 67.)

(Some hypothetical propositions are conditional, some copulative, some disjunctive. . . . Copulative is one in which two categorical propositions are joined by this conjunction, "et," as in "Socrates currit et Plato disputat.")

²¹See Mullally, Summulae, p. xiv.

²²Bocheński, 6.03 (p. 58). An example is homo albus (a white man). See Abelard, Logica Ingredientibus, Glossae super Peri hermeneias (ed. Geyer, in Beiträge zur Geschichte der Philosophie und Theologie des Mittelalters, vol. 21 [Münster: Verlag der Aschendorffschen Verlagsbuchhandlung, 1933], p. 327).

(Copulatio is the acceptance of an adjectival term for something.)

²³See William and Martha Kneale, The Development of Logic (Oxford: The Clarendon Press, 1962), p. 277.

Sequitur de aequipollentiis. Aequipollentia est quaedam convertibilitas propositionum, quae provenit ex ordinatione huius adverbii "non" positi ex parte ante ad contradictorias, ex parte post ad contrarias, ex parte ante et post ab subalternas cum signis universalibus et particularibus. Duplex est aequipollentia: simplex et composita. Simplex est in ipsis verbis, ut "risibile" convertitur cum "homine" et haec appellatur "de simplici inhaerentia," de qua non est dicendum. Composita est, de qua dantur tales regulae.

Prima talis est: si alicui signo tam universali, quam particulari praeponatur negatio, aequipollet suo contradictorio. Unde istae aequipollent: "non omnis homo currit" - "quidam homo non currit," "non nullus homo currit" - "quidam homo currit" et e converso. Secunda regula talis est: si alicui signo universali postponatur negatio, aequipollet suo contrario, ut "omnis homo non currit" - "nullus homo currit" et e converso. Tertia regula talis est: si alicui signo universali et particulari praeponatur et postponatur negatio, aequipollet suo subalterno, ut "non omnis homo non currit" - "quidam homo currit," "non nullus homo non currit" - "quidam homo non currit."²⁴

Thus aequipollentia refers to the convertibility of propositions, by which one proposition carries the same significance as another. Given the first proposition, the second can be

²⁴Bocheński, 1.24-1.26 (pp. 8-9).

(There follows a discussion about aequipollentiae. Aequipollentia is a certain convertibility of propositions, which derives from the arrangement of the adverb "non" placed before with contradictories, after with contraries, before and after with subalterns with universal and particular signs. Aequipollentia is of two kinds: simplex and composita. Simplex is in the words themselves, as "risibile" is convertible with "homine," and this is called de simplici inhaerentia, which we shall not discuss. Composita is the kind for which these rules are given:

The first is: if a negation is put before any sign, either universal or particular, then it is equipollent [aequipollet] with its contradictory. Whence these are equipollent [aequipollent]: "not every man runs" - "a certain man does not run," "not no man runs" - "a certain man runs," and vice-versa. The second rule is this: if a negation is placed after any universal sign, it is equipollent to its contrary, as in "every man does not run" - "no man runs," and vice versa. The third rule is this: if a negation is placed before and after a universal and particular sign, it is equipollent with its subaltern, as in "not every man does not run" - "a certain man runs," "not no man does not run" - "a certain man does not run.")

directly derived from it.

Multitudo is a word that, apart from its meaning as a large quantity, had been established since Classical times simply as a grammatical term for the plural:

. . . alia vocabula singularia sint solum, ut cicer,
alia multitudinis solum, ut scalae. . . .²⁵

This meaning is retained in the fourth-century grammarians:

. . . in multitudine, hoc est plurali numero.²⁶

By the time of the Scholastic philosophers, this basic grammatical sense was still sufficiently strong that the word could take on the additional conceptual overtones of plurality or diversity:

Ut longitudo per lineam, multitudo per numerum. . . .²⁷

. . . eademque sola proprie ad vere simplex essentia divina, uti nec partium nec accidentium seu quarumlibet formarum ulla est diversitas siva variatio vel multitudo.²⁸

Aequus does not necessarily mean equal in length or size. It

²⁵Varro, De Lingua Latina (ed. Kent [Cambridge: Harvard University Press, 1938]), Book 9, para. 63 (Vol. 2, p. 486).

(. . . some words may be singular only, like cicer, others plural [multitudinis] only, like scalae. . . .)

²⁶Anonymous grammatical treatise in Keil, Grammatici Latini, vol. 1 (Leipzig: Teubner, 1864), p. 64, 16B.

(. . . in multitudo, that is in the plural number.)

²⁷Abelard, Glossae ad categorias, p. 168, 11, quoted in Novum Glossarium Mediae Latinitatis (Copenhagen: Munksgaard, 1957-), s.v. "multitudo."

(As longitudo refers to line, multitudo to number. . . .)

²⁸Petrus Lombardus, Sententiarum Libri IV, I, 8, 3, p. 61, quoted in Novum Glossarium, s.v. "multitudo."

(. . . and truly and properly that same, sole, simple divine essence, such that there is no diversity or variation or multitudo of its parts, or circumstances or any forms.)

also means equal in quality or type. This usage is found in the fourth-century grammarian Dositheus:

Sunt aequalia nomina (participiis), quae nominativo casu participiis similia videntur ut "cultus," "passus," "visus." . . .²⁹

and commonly in Priscian, whose Institutiones Grammaticae (c. 500 A.D.) was one of the primary authorities for the teaching of Grammar in the Middle Ages:

Omnia verba perfectam habentia declinationem et aequalem vel in "o" desinunt vel in "or."³⁰

Omnia verba, quae aequali regula declinantur. . . .³¹
 . . . in omnibus aequalibus verbis.³²

Boethius, an author of great influence in mediaeval Logic, uses the word in this way in his commentary on Aristotle's ΤΕΠΙ

ΕΡΜΗΝΕΙΑΣ :

Rursus aequale est (subiectum praedicato), cum sic dicimus "homo risibilis est." "Homo" subiectum est, "risibile" praedicatum, sed homo atque risibile aequalia sunt. . . .³³

²⁹Ars grammatica in Keil, Grammatici Latini, vol. 7, p. 408, 15.

(Nouns are equal [aequalia] (to participles), which seem similar to participles in the nominative case, like "cultus," "passus," "visus." . . .)

³⁰Keil, vol. 2, p. 373, 12.

(All verbs having a perfect and equal [aequalem] declension end either in "o" or in "or.")

³¹Keil, vol. 2, p. 442, 29.

(All verbs which are declined with an equal [aequali] rule. . . .)

³²Keil, vol. 2, p. 457, 7.

(. . . in all equal [aequalibus] verbs.)

³³Anicii Manlii Severini Boetii Commentarii in Librum Aristotelis ΤΕΠΙ ΕΡΜΗΝΕΙΑΣ, ed. Meiser (Leipzig: Teubner, 1877), vol. 1, p. 91, 15.

(Again the (subject) is equal [aequale] to the (predicate),

Enuntiatio vero est in qua veritas et falsitas inveniri potest. Qua in re et affirmatio et negatio aequales sunt. Aequaliter enim et affirmatio et negatio veritate et falsitate participant.³⁴

Antecedens, consequens. These terms were already associated with Logical reasoning in Classical times:

Deinceps est locus dialecticorum proprius ex consequentibus et antecedentibus. . . . Nam coniuncta . . . non semper eveniunt; consequentia autem semper.³⁵

And they were adopted by the Scholastic Logicians:

Sequitur de propositione hypothetica. Propositio hypothetica est illa, quae habet duas categoricas sub se principales partes sui, ut "si homo currit, homo movetur." . . . (Propositio) conditionalis est illa, in qua coniunguntur duae categoricae per hanc coniunctionem "si," ut "si homo currit, homo movetur;" et illa categorica, cui immediate coniungitur haec coniunctio "si" dicitur "antecedens," alia vero "consequens."³⁶

when we say: "man is laughable." "Man" is the subject, "laughable" the predicate, but man and laughable are equal [aequalia]. . . .)

³⁴Meiser, vol. 2, p. 18, 12.

(A declaration is something in which truth and falsehood may be found, and in which affirmation and negation are equal [aequales]. For both affirmation and negation participate equally in truth and falsehood.)

³⁵Cicero, Topica (ed. Hubbell [Cambridge: Harvard University Press, 1949]), para. 53 (p. 420).

(Then the proper place of dialectics is from consequences and antecedents. . . . For coniuncta . . . do not always happen; but consequentia always.)

³⁶Bocheński, 1.22 (pp. 7-8).

(There follows a discussion about the hypothetical proposition. The hypothetical proposition is that which has two categorical propositions within itself, as principal parts of itself, as "if a man runs, a man moves." . . . A conditional (proposition) is that in which two categorical propositions are joined by the conjunction "si," as "if a man runs, a man moves," and that categorical proposition to which is immediately joined the conjunction "si" is called the antecedens; and the other, consequens.)

In the theory of consequences, which was developed particularly by the Scholastics, the terms antecedens and consequens are of central importance. Duns Scotus (1265-1308) defines the consequentia as follows:

Consequentia est propositio hypothetica composita ex antecedente et consequente mediante coniunctione conditionali vel rationali, quae denotat, quod impossibile est ipsis, sc. antecedente et consequente simul formatis, quod antecedens sit verum et consequens falsum.³⁷

The consequentia can apply to a piece of reasoning with more than one premise, in which case the antecedens can refer to several propositions and the consequens to a single conclusion:

. . . in consequentia syllogistica, videlicet in syllogismo, antecedens non habet oppositum, quia antecedens syllogisticum est propositiones plures inconiunctae. . . .³⁸

Species is a word that is used for classification in many disciplines, though it has an important place in Logic. Boethius uses species as a translation of Aristotle's τὸ εἶδος³⁹ (that

³⁷Duns Scotus, Quaestiones in Universam Logicam, quoted in Dumitriu, History of Logic, vol. 2, p. 153.

(Consequentia is a hypothetical proposition made up of an antecedent and a consequent with the help of a conditional or rational conjunction, which denotes what is impossible to them, that is to say the antecedent and consequent formed at the same time, that the antecedent may be true and the consequent false.)

³⁸Walter Burleigh, De Puritate Artis Logicae Tractatus Longior, ed. Boehner (St. Bonaventure, N.Y., 1955). Quoted in Kneale, The Development of Logic, p. 278.

(. . . in a syllogistic consequentia, that is in a syllogism, the antecedent does not have an opposite, because the syllogistic antecedent is several propositions not joined together. . . .)

³⁹Meiser, vol. 2, p. 447, 6.

which is seen; form, shape; kind), and the word appears passim in Petrus Hispanus in discussions of type and class.⁴⁰

Univoce, however, is specifically a Logical term that refers to the use of a word that has only one, uniform, unambiguous meaning:

Praedicari autem univoce est praedicari secundum unum nomen et rationem unam sumptam secundum illud nomen, ut homo secundum idem nomen praedicatur de Socrate et Platone, ut Socrates est homo, Plato est homo; et ratio eius secundum illud nomen est una, ut animal rationale mortale. . . .⁴¹

This is contrasted with the term aequivoce, which refers to the use of a word that has several different meanings:

Praedicari autem aequivoce est praedicari nomine uno et diversis rationibus sumptis secundum illud nomen, ut "canis" nomine uno praedicatur de latrabili et marina belua et coelesti sidere. Ratio autem secundum illud nomen non est eadem de omnibus, sed alia et alia.⁴²

⁴⁰See Bocheński, index, p. 137, and especially 2.07.

⁴¹Bocheński, 2.20 (p. 21). The term can also be found in Boethius (Meiser, vol. 2, p. 119, 16):

"Omne enim genus univoce de speciebus propriis praedicatur."

(For every genus is predicated univocally from its particular species.)

(To predicate univoce is to predicate according to one name and one meaning derived according to that name, as a man according to the same name is predicated from Socrates and Plato, as Socrates is a man, Plato is a man; and its meaning according to that name is one, that is a rational, mortal animal. . . .)

⁴²Bocheński 2.21 (p. 22). Anonymous IV in his treatise refers to organum as a "verbum aequivocum" [70:26].

(To predicate aequivoce is to predicate with one name and different meanings derived according to that name, as the word "canis" [dog] is predicated with one name from a barking thing, and a marine beast, and a heavenly star. Its meaning, however, according to that name is not the same for all, but something other and different.)

It can be seen, therefore, that there are many terms in Garlandia's description of the copula which derive from specialized terminology. Of these perhaps the most important for our ability to understand the passage in musical terms are multitudo, aequalia, antecedens, and consequens. To summarize: multitudo means "a number," "more than one." Aequalia means "parts that are parallel or equivalent (but not necessarily equal in length)." Antecedens and consequens mean "antecedent" and "consequent," but again, they are not required to be of exactly equal length.

The original passage can therefore be translated literally as follows, leaving the specifically musical terminology in the original Latin for the moment:

Having discussed discantus, we must now discuss copula, which is very important for discantus, because discantus is never perfectly known without the help of copula. Whence copula is said to be that which is between discantus and organum. Copula is described in another way: copula is that which is performed in a rectus mode with the unisonus being equipollent. It is described in another way: copula is that, wherever there occurs a number of puncti. Punctus, as used here, is wherever there is a number of tractus. And that part [i.e., the copula] is divided into two parallel parts. Whence the first part is called the antecedent, but the second the consequent, and each part contains a number of tractus. Whence a tractus occurs, wherever there occurs a number of species in a uniform manner, for example unisoni or toni, according to an arranged number in a fixed order. And that is enough [to describe] <the copula>.

Let us now proceed to an examination of the specifically musical terms in this passage.

The first musical term encountered (apart from the names of the musical styles) is unisonus in the third sentence. Here unisonus is used to describe the held tenor-tone which stays on

a single pitch. It is this sentence which amplifies the preceding description of copula as being "inter discantum et organum." The rectus modus is the attribute of discant, the held tenor-tone the attribute of organum. "Aequipollente unisono" therefore means "with the tenor-tone being equipollent," i.e., "with the tenor-tone being held for the length of time that corresponds to the time taken by the upper part." This meaning becomes entirely clear in the following chapter of the treatise in the description of organum:

Et eius aequipollentia . . . se tenet in unisono. . . .
[XIII:9]⁴³

The next two terms, punctus and tractus, are crucial. Reckow argues that punctus means ligature,⁴⁴ and that tractus are the "Verbindungsstriche in den Ligaturen."⁴⁵ Despite his arguments, it seems clear that neither of these interpretations can be sustained.

In the first place, Garlandia would not have described a copula as "id, ubicumque fit multitudo punctorum" (that where there occurs a number of ligatures), since such a description does not distinguish the copula from any other part

⁴³(And its tenor-tone . . . holds itself on a single pitch. . . .)

⁴⁴Reckow, Die Copula, pp. 13-14.

⁴⁵Ibid., p. 16. Reimer had the same view: "Die auf die Definition folgenden Sätze 4 und 5 grenzen die Copula vom Discantus ab, indem sie in wörtlicher Anlehnung an die Definition der Figura ligata feststellen, dass bei der Copula - im Unterschied zum Discantus - einem einzigen Tenorton eine Vielzahl von Noten der Oberstimme ('multitudo punctorum') und somit eine Vielzahl von Tractus (Satz 5), die die einzelnen Puncti zu Ligaturen verbinden, gegenübertritt." (Reimer, Johannes de Garlandia . . . Vol. 2, p. 36.)

of the music. It would then be no different from organum or discantus.

Secondly, Garlandia has, up to this point in the treatise, used punctus only in the sense of a single note. In the chapter immediately following the passage on the copula, punctus is used in the sense of a section within a piece:

Organum autem <cum alio> dicitur, quidquid profertur per <aliquam> rectam mensuram, ut dictum est superius. Et eius aequipollentia tantum se tenet in unisono usque ad finem alicuius puncti, ut secum convenit secundum aliquam concordantiam. [XIII:8-9]⁴⁶

The phrase "ut hic sumitur" ("as used here") in the copula passage shows that Garlandia is abandoning the previous meaning of the word (a single note) for a new meaning. And this new meaning (a section) is maintained, with no explanation now necessary, in the following chapter.⁴⁷

⁴⁶ (Organum <cum alio> is said to be that which is performed according to <some> recta mensura, as has been said above. And its tenor-tone only holds itself on a single pitch up to the end of some section [puncti], when it agrees with it according to some concord.)

⁴⁷ Klaus-Jürgen Sachs argued for this interpretation in his "Der Contrapunctus im 14. und 15. Jahrhundert" (Ph.D. dissertation, Freiburg, 1967). Reckow dismisses his suggestions (Die Copula, p. 14, footnote 1) by means of a quotation from the Anonymous of St. Emmeram, where punctus is said to represent a "pluralitas." However, this treatise is between twenty and forty years later than Garlandia's, and "pluralitas" does not necessarily imply a ligature. In the revised edition of his work (published as Vol. 13 of the Beihefte zum Archiv für Musikwissenschaft, 1974), Sachs changed his views and agreed with Reckow: ". . . im fraglichen Satz bedeutet punctus nicht 'Abschnitt,' . . . sondern 'Notengruppe' (Ligatur)." (p. 14). Neither Reckow nor Sachs appears to have noticed the clearly defined new usage of punctus in Garlandia's next chapter. But for the establishment of this usage among later thirteenth-century authors, see Sachs (Beihefte 13), pp. 11-16. Anonymous IV uses punctus synonymously with clausula (see "Punctus," in Handwörterbuch, p. 10).

Finally, if Garlandia had wanted to describe the copula as a species of music that contains a number of ligatures (which, as mentioned above, is not very likely), he could have used a term he had already defined earlier in the treatise:

Figura ligata est, ubicumque fit multitudo punctorum simul iunctorum per suos tractus. [II:8]⁴⁸

The word tractus is certainly used in Garlandia's treatise to mean the line connecting notes in a ligature, as can be seen from the above quotation. However, there is another completely different meaning also:

Sequitur de figuris pausationum. Un. a figura pausationis est signum vel tractus significans dimissionem soni factam in debita quantitate. Pausationum vel tractuum quaedam dicitur recta brevis, quaedam longa, quaedam finis punctorum, quaedam divisio modorum, quaedam divisio sillabarum, quaedam suspiratio. [VIII:1-3]⁴⁹

These are the small vertical lines that divide groups of notes from one another, and they can be found in all the manuscripts. It seems clear that it is in this sense that Garlandia uses the word tractus in the copula passage. For, again, if punctus

⁴⁸ Here punctus is clearly used in the sense of a single note. (A figura ligata is wherever there occurs a number of notes joined together by their lines.)

⁴⁹ The term "finis punctorum" in this quotation must mean "the end of the notes," since "punctorum" is plural, and a single tractus cannot denote the end of more than one section. Cf. Sachs (Beihefte 13), pp. 13-15. This would be in keeping with the suggestion that Garlandia is using a new meaning for punctus in the copula passage and thereafter.

(There follows a discussion of the notation of pauses. Whence the notation of a pause is a sign or a tractus signifying the ending of the sound made for a fixed quantity. Of the pauses or tractus one is called a recta brevis, one a long, one the end of the notes, one the division of the modes, one the division of the syllables, one a breath.)

means section, Garlandia would not have written: "A punctus (section), as used here, is wherever there occurs a number of lines that connect notes in a ligature."

These two sentences can therefore be interpreted as follows:

Copula est id, ubicumque fit multitudo punctorum.
Punctus, ut hic sumitur, est, ubicumque fit multitudo tractuum.

(A copula is that, wherever there occurs a number of puncti (sections). A punctus (section), as used here, is wherever there occurs a number of tractus (lines of division marking off groups of notes).)

There remains only the problem of the penultimate sentence of the passage - the sentence, it turns out, that provides the primary clue for an understanding of the copula:

Unde tractus fit, ubicumque fit multitudo specierum univoce, ut unisoni aut toni secundum numerum ordinatum ordine debito.⁵⁰

The word species is used in Garlandia for the classification of modes, ligatures, and types of discant, but especially for the classification of intervals:

. . . sunt duae species, scilicet ditonus et semiditonus. [IX:8]⁵¹

. . . duae sunt species, scilicet diapente et diatesseron. [IX:10]⁵²

. . . sex sunt species concordantiae . . . [IX:12]⁵³

⁵⁰ (Whence a tractus occurs, wherever there occurs a number of species in a uniform manner, for example unisoni or toni, according to an arranged number in a fixed order.)

⁵¹ (. . . there are two species, the major third and the minor third.)

⁵² (. . . there are two species, the fifth and the fourth.)

⁵³ (. . . there are six species of concord . . .)

Iste species dissonantiae sunt septem. . . . [IX:34]⁵⁴
etc.

The phrase "ut unisoni aut toni" confirms this latter meaning here.

The words "secundum numerum ordinatum ordine debito" can also be explained by parallel usages within the treatise. In the discussion on discant, Garlandia writes:

Et sciendum est, quod a parte primi tria sunt consideranda, scilicet sonus, ordinatio et modus. . . . ordinatio sumitur pro numero punctorum ante pausationem. . . . [XI:7]⁵⁵

The word ordo is used in Garlandia either in the sense of the arrangement of modal quantities⁵⁶ or simply in the non-technical sense of "order":

Sciendum est ergo, quod ipsius organi generaliter accepti tres sunt species, scilicet discantus, copula et organum, de quibus dicendum est per ordinem. [I:3]⁵⁷

The adjective "debitus" ("fixed," or "required") indicates that it is the normal sense that is intended here.

The sentence can therefore be translated as follows:

Whence a tractus (line of division) occurs, wherever there occurs a number of intervals in a uniform

⁵⁴(Of that species of dissonance there are seven. . . .)

⁵⁵(And it should be known that in the first part three things must be considered, that is to say sonus, ordinatio, and modus. . . . ordinatio is used for the number of notes before a pause. . . .)

⁵⁶See Garlandia, XI:20 ff.

⁵⁷(It should be known therefore, that of polyphony in its generic sense there are three species, that is to say discantus, copula, and organum, about which we shall speak in order.)

manner, for example unisons or whole steps, according to an arranged number in a fixed order.

Again there is confirmation of the interpretation of tractus as "line of division," for it would make no sense to have a "line connecting notes to a ligature" described in this way. Also the sentence begins with the words "tractus fit" - "a tractus occurs," not "tractus est" - "a tractus is," as had the descriptions of the copula ("Copula est id . . .") and the punctus ("Punctus, ut hic sumitur, est . . ."), which further corroborates this interpretation.

One further point: the addition of a comma to Reimer's text after the words "ut unisoni aut toni" ("ubicumque fit multitudo specierum univoce, ut unisoni aut toni, secundum . . .") would serve to clarify the point that unisoni and toni are examples of intervals, not requirements ("ut" means "for example," not "namely"), that they are mentioned to elucidate "specierum," and also that the phrase "secundum numerum ordinatum ordine debito" qualifies "multitudo specierum univoce," and not "unisoni aut toni."⁵⁸

With this investigation into the terminology of the copula passage completed, an interpretation of Garlandia's description is made possible.

The following are the features of copula:

1. It is between discant and organum.

⁵⁸Reckow's musical example and discussion of this sentence (Die Copula, pp. 17-19) suggest that he has misunderstood this. Significantly, his reprinting of the text omits even the first comma.

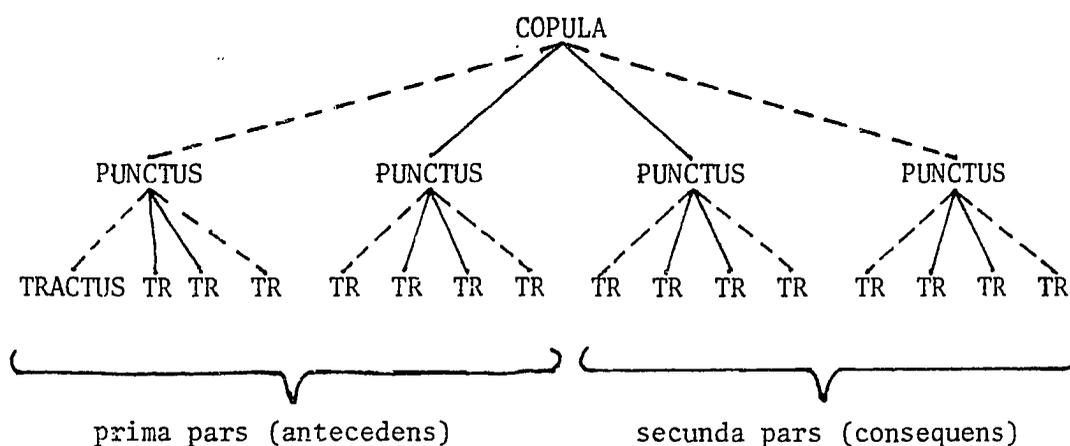
2. It is performed in modal rhythm over a held tenor-tone.
3. It contains a number of sections.
4. A section contains a number of groups of notes separated by division lines.
5. The copula is divided into two parallel (but not necessarily equal) parts.
6. The first part is called the antecedent, the second the consequent, and each part contains a number of groups of notes separated by division lines.
7. A division line occurs wherever there occurs a number of intervals uniformly in an arranged number and in a fixed order.

Feature 1 may be interpreted either stylistically or factually. As mentioned before, the copula may be shown to be "inter discantum et organum" stylistically because of Feature 2: it has the modal rhythm of discant and the held tenor-tone of organum. But it can be demonstrated that in fact the copula is not found at the beginning of any of the pieces in the Magnus Liber (the majority of which start with organum), and may therefore be said to be factually "inter discantum et organum" as well.⁵⁹

Feature 2 shows why the musical copula is the analogue of the copula in Logic. It is the link between organum, with its held tenor, and discant, with its modal rhythm.

⁵⁹Cf. Reckow, "Copula," in Handwörterbuch, p. 4.

Features 3-6 may be schematized as follows:



The copula contains a number (two or more, but otherwise undefined) of puncti (sections). A punctus contains a number of tractus (lines marking off note-groups). The copula is divided into two parallel parts, and each part contains a number of tractus.

It is Feature 7 that provides the finest details of the definition and the key to the ultimate understanding of the copula.

"A number of intervals uniformly in an arranged number and in a fixed order" can only be a description of a technique of musical writing found frequently in the music of Notre Dame: the technique of melodic sequence. The intervals appear in an arranged number and in a fixed order each time, and, though they may be on a different pitch level, they are uniform and convey the same sense ("univoce") each time.

It is these sequences that are set off by tractus (division-lines) and form the smallest, but the most distinctive, unit of the copula.

All the features of the copula as described by Garlandia may be seen in Judea et Jerusalem, the opening piece of the Magnus Liber. Beginning on the second syllable of the \mathcal{X} . "(Con-) stan- (tes)" at the end of the third system on folio 65 of the Florence manuscript⁶⁰ is a short phrase that is set off from the previous passage by its skip of a fifth, that falls squarely into the first mode, that is immediately sequenced, and that is marked off by a tractus. This phrase opens the copula, which continues through to the end of the setting of "(esto-) te" (beginning of the fifth system) and is rounded off by a brief phrase in sixth mode. The next (discant) section is introduced by a change of clef and range, which also serve to mark the end of the copula.

In the facsimile below, the sequences are marked by letters. There are two statements of A, followed by three statements of B. Then follows a short discant setting ("esto-"). A returns in varied form (A') and is repeated with a changed final note. B is stated once more, and the copula ends with the sixth-mode phrase that is not unrelated to B.

The copula appears after an organal setting ("Con-") and before a discant setting ("Videbitis") - it is therefore "inter discantum et organum."

It has a number of sections (a section may be said to be

⁶⁰Firenze, Biblioteca-Laurenziana, Pluteo 29, 1. The piece may also be found in W₁ (Wolfenbüttel, Herzog-August-Bibliothek, codex 628 Helmstadiensis) on folio 17, and in W₂ (Wolfenbüttel, Herzog-August-Bibliothek, codex 1099 Helmstadiensis) on folio 47.

Example of copula: Iudea et Iherusalem (F: folio 65)

a et iheru sa lem.

On stan

discant A' A'

New clef

Discant...

re. vi de bi calaya li

um do mi ni super nos.

← beginning of copula

each series of sequences: A+A, B+B+B, etc.) - "multitudo punctorum."

Each section contains a number of tractus - "multitudo tractuum."

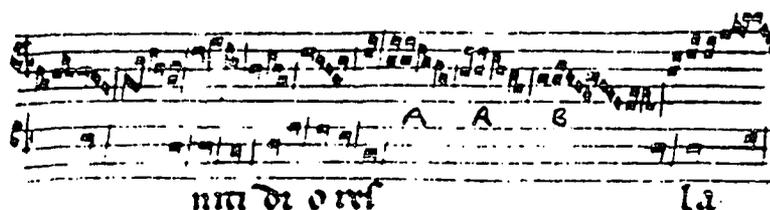
The copula is divided into two parallel or equivalent parts: A+A+B+B+B is parallel or equivalent to A'+A'+B - "ista

pars dividitur in duo aequalia."

Each part contains a number of tractus - "multitudinem tractuum."

And each tractus occurs after a phrase that has the same number of intervals uniformly each time, and in the same order - "multitudo specierum univoce . . . secundum numerum ordinatum ordine debito."

This kind of sequential writing occurs frequently in the Magnus Liber. Often the passage consists only of one or two sequences of a phrase, in which case not all the levels of Garlandia's description of the copula may obtain. In the case of the copula, either all the levels of sectionalization do not always appear, or these levels may be conflated. In the following example:⁶¹



the copula contains the units A+A+B. In this case, the first punctus is made up of A+A and forms the prima pars; the second punctus (B) is not subdivided and is in itself the secunda pars.

The most important facts about the copula according to Johannes de Garlandia have thus been established. It is characterized by modal rhythm over a held tenor-tone, by sectionalization, and by melodic sequence.

⁶¹Florence, folio 82.

The Copula According to the Anonymous of St. Emmeram

The chapter on the copula in the St. Emmeram treatise is clearly based on Garlandia's comments, as will be seen. However, whereas Johannes de Garlandia gave no examples to illustrate his definition, the St. Emmeram Anonymous cites two specific pieces in the Magnus Liber as illustrations. This is an important aid in the clarification of the later theory, although identification of the copula in one of these pieces requires the additional comments of Anonymous IV. Nonetheless, a detailed analysis of the St. Emmeram treatise shows clearly a continuation of Garlandia's basic doctrine, as well as a similar reliance upon the terminology of the Trivium.

The first mention of the copula by the Anonymous of St. Emmeram occurs towards the beginning of his treatise in an introductory discussion of musica mensurabilis:

Cuius mensurabilis musicae tria sunt genera, scilicet discantus, copula et organum. Et est aliud organum, quod idem est quod musica mensurabilis et prout ita sumitur est genus generale ad tria genera supradicta, de quibus per ordinem locis debitis sussequetur.
[5:6-11]⁶²

This is a close imitation of Garlandia:

Unde organum et est species totius mensurabilis musicae et est genus diversimode tamen, prout dictum est super-

⁶²Sowa's edition has a period between "musica" and "mensurabilis" in the second sentence, which is clearly incorrect.

(And there are three genera of musica mensurabilis, that is to say discantus, copula, and organum. And there is another organum, which is the same as musica mensurabilis, and is used as a general genus to the three genera mentioned above, about which there follows a discussion in order in the required places.)

ius. Sciendum est ergo, quod ipsius organi generaliter accepti tres sunt species, scilicet discantus, copula et organum, de quibus dicendum est per ordinem. [I:2-3]⁶³

though Garlandia's species have become genera, and in place of an organized classification by levels, the Anonymous of St. Emmeram simply describes the overall term organum as a genus generale.

Immediately following this passage, however, the Anonymous of St. Emmeram launches into a specific attack on Lambertus, whose treatise had (according to the St. Emmeram Anonymous) propounded so many mistakes.

Quidam loco copule hoquetorum maneriem posuerunt, quorum opinionem acquiescere satis potest. Sed nos antecessorum semitam imitamur atque de hoquetorum generibus in fine capituli sex modorum doctrinam tradimus generalem per libri seriem de necessariis et utilibus mentionem prout decet facientes, dubia et obscura et sophisticis rationibus uerissimilia subticendo. [5:11-16]⁶⁴

The offending doctrine may be found in the middle of Lambertus' treatise, where he discusses his version of the division of musica mensurabilis:

⁶³ (Whence organum is both a species of the whole of musica mensurabilis and is nevertheless also a genus in a different way, as has been said above. It should be known therefore, that of polyphony in its generic sense there are three species, that is to say discantus, copula, and organum, about which we shall speak in order.)

⁶⁴ (Some people have placed the category of hockets in place of the copula, and it could be enough to accede to these peoples' opinion. But we imitate the way of our predecessors and give a general doctrine about the types of hockets at the end of the chapter of the six modes, making mention throughout the course of the book of necessary and useful things, as is seemly, and rejecting things that are dubious and obscure and like sophistical reasonings.)

Primo igitur sciendum est quod tria tantummodo sunt genera per que tota mensurabilis musica discurrit, scilicet discantus, hoketus et organum. [CSI, 269a]⁶⁵

It is likely that, with the application of modal rhythm to organum purum in the mid-thirteenth century and the disappearance of the original organal rhythm, the distinction between organum purum and copula began to appear meaningless and some theorists felt the necessity to revise the original classification.⁶⁶ Reckow has drawn attention to a similar usage in Grocheo;⁶⁷ and the additional chapters in the manuscript P of Garlandia's treatise contain an interesting passage that covers both possibilities by saying that copula is of two kinds:

Copula duplex est, una, quae est medium inter organum purum et discantum, altera est, quae fit in abscissione sonorum aut sumendo tempus post tempus et tempora post tempora. Et iste modus sumitur flaiolis. Et aliqui vocant oquetum modum istum. [P XV, 24-26]⁶⁸

This is clearly just a conflation of the two divergent doctrines, and, apart from offering a further indication that the manuscript P is a later and emended version of the original treatise,⁶⁹ adds nothing to our understanding of the copula.⁷⁰

⁶⁵ (And first therefore it should be known that there are only three genera through which the whole of musica mensurabilis runs, that is to say discantus, hoketus, and organum.)

⁶⁶ See Reckow, Der Musiktraktat . . . Vol. 2, pp. 58-72.

⁶⁷ See Reckow, "Copula," in Handwörterbuch, p. 5.

⁶⁸ (Copula is of two kinds. One is the medium between organum purum and discantum. The other occurs in the cutting apart of sounds or taking a tempus after a tempus and tempora after tempora. And that method is used on flutes. And some call that method hocket [oquetum].)

⁶⁹ See Reimer, Johannes de Garlandia . . . Vol. 2, pp. 1-7.

⁷⁰ Reckow shares this view:

Lambertus' deliberate renunciation of the copula as a separate type of polyphony, however, was not acceptable to the Anonymous of St. Emmeram, who saw no reason to depart from the original classification as put forward by his antecessores (referring, presumably, especially to Garlandia).

A little later in his introductory remarks, the St. Emmeram Anonymous explains the layout of his treatise by chapter contents:

In quinto de discantu, et illud in duo membra diuiditur in quorum primo agit actor simpliciter de discantu, in secundo specialiter de copula, que est membrum ipsius discantus, nec ab eo differt nisi solummodo in figmentando. [11:20-23]⁷¹

The classification of copula as a part of discant is a result of their both being characterized by the use of modal rhythm. The comment about their not being distinguished except in the appearance of their notation⁷² seems at first to

Wenn dennoch in dem wohl von Hieronymus de Mor^(avia) stammenden Garlandia-Nachtrag neben dem "medium inter organum purum et discantum" der Hoquetus ausdrücklich als eine zweite Copula-Species angeführt ist, so kann dies wohl nur als Missverständnis des Kompilators erklärt werden, der hier alles zusammenträgt, was ihm zum Stichwort copula aus der ihm vorliegenden Literatur bekannt ist. Denn weder von der Sache noch vom Wort her wird die Subsumtion des Hoquetus unter den copula-Begriff begründet. ("Copula," in Handwörterbuch, p. 5)

⁷¹(The fifth chapter is about discantus, and that is divided into two parts: in the first, the author deals simply with discantus; in the second, particularly with copula, which is a part of discantus, and does not differ from it except only in the notation.)

⁷²The meaning of figmentum has been misunderstood by Reckow, who suggests "Vortragsweise" (Die Copula, p. 47). The word means "representation; shape; image," hence, presumably, notation. Reckow has mistakenly applied one of the interlinear glosses in the treatise ("quoddam prolationis scema") to the

be a curious one, for a far more obvious distinction is the copula's long-held tenor note as opposed to the moving modal-rhythmic tenor of discant. These remarks can, however, be clarified by analysis of the penultimate chapter of the treatise, which is devoted exclusively to a consideration of the copula and its characteristics.

Again, the only thorough analysis of this chapter has been undertaken by Fritz Reckow.⁷³ Having misunderstood Garlandia's comments, however, Reckow goes badly wrong in his interpretation of the Anonymous of St. Emmeram. He suggests that the author is propounding a theory of copula that is fundamentally different from that of Garlandia ("dieser gegenüber Johannes de Garlandia grundlegend gewandelten Copula-Konzeption"),⁷⁴ and that this theory embraces only an irregular style of performance which the copula shares with organum purum ("organaler Freiheit"⁷⁵ - "eine vom strengen modalen Rhythmus abweichende freie Vortragsweise"⁷⁶) and which is chosen at the discretion of the performer - in short, that according to the Anonymous of St. Emmeram "copula is nur noch, was nicht 'korrekt modal' vorgetragen wird."⁷⁷

In fact, as will be demonstrated, the Anonymous of St.

word figmentum instead of to the previous word ccpula. See also footnote 85 below.

⁷³"Copula," in Handwörterbuch, and Die Copula, pp. 45-50.

⁷⁴Die Copula, p. 50.

⁷⁵Die Copula, p. 48.

⁷⁶Die Copula, p. 50.

⁷⁷Die Copula, p. 50.

Emmeram bases his exposition of the copula very closely upon that of Garlandia; pace Reckow, the copula shares with organum purum a quality of voice production, not its rhythmic characteristics; and the copula remains what it was in Garlandia's description - a species of music between discantus and organum, characterized by the compositional technique of melodic sequence.

Certainly, changes have been made in Garlandia's theory. These changes are careful and deliberate, and are the result of a desire to expand an earlier theoretical concept to embrace the newer developments in music. The procedure is an excellent example of the principle of imitatio. As many words as possible of the auctoritas (antecessor) are retained, while a few subtle changes enable some new concepts to be introduced.⁷⁸

⁷⁸It is appropriate here to remember the comments of Lawrence Gushee in his penetrating essay on medieval music treatises:

There is perhaps a tendency to rely excessively on the mere fact of concordance as an index of a theorist's point of view. What is equally or even more important is the context in which a statement is found and ways in which its original meaning may be altered. In the great majority of medieval writers there will be numerous concordances with earlier sources, and in particular with those considered authoritative. In some cases, opinions which directly conflict appear in juxtaposition. These three factors, conservatism as a result of "centonate" literary composition, of respect for auctoritas, of a desire if not to reconcile and synthesize opposing ideas, at least to leave conflicts undecided, are to a certain degree general during the period 800-1500, and necessitate some delicacy of judgment in the interpretation of concordances.

(Lawrence A. Gushee, "Questions of Genre in Medieval Treatises on Music," in Gattungen der Musik in Einzeldarstellungen, vol. 1 [1973], p. 375.)

Here follows the passage on the copula from the Anonymous of St. Emmeram, while the chapter from Garlandia has been placed alongside it for immediate comparison:

. . . uix aut nonquam sine copula perfecta discantus cognitio poterit perhiberi, eo quod in suo genere discantum reddit melicum et placentem, licet in hoc sue rectitudinis nil amittat. Et est notandum, quod copula est illud medium quod inter discantum et organum speciale dicitur reperiri vnum ab altero subtiliter per hoc diuidendo. Vnde copula est id quod profertur recto modo equipollentie vniuerso. Alio modo dicitur sic: copula est id ubique quod fit multitudo punctorum simul iunctorum per suos tractus, et hoc sub specie primi modi et sub recta serie figurarum sicut patet in Alleluya de "Posui" tam in triplo cantu quam secundo, et hoc secundum dispositionem discantus, nunc autem secundum dispositionem organi specialis sicut patet in duplo de "Iudea et Ierusalem." Punctus prout hic sumitur est illud, ubi fit multitudo actuum alicui punctorum termino singulariter attributa. Nota tamen quod vox, figura, sonus, punctus, actus idem sunt; in hoc tamen differunt quod figura et punctus sepius pluralitatem representant, alia uero non. [Anon. St. E. 125:9-26]⁷⁹

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. Alio modo dicitur copula: copula est id, quod profertur recto modo equipollente unisono. Alio modo dicitur: copula est id, ubicumque fit multitudo punctorum. Punctus, ut hic sumitur, est, ubicumque fit multitudo tractuum. Et ista pars dividitur in duo aequalia. Unde prima pars dicitur antecedens, secunda vero consequens, et utraque pars continet multitudinem tractuum. Unde tractus fit, ubicumque fit multitudo specierum univoce, ut unisoni aut toni, secundum numerum ordinatum ordine debito. Et haec sufficiant ad copulam. [Garlandia XII:1-9]⁸⁰

⁷⁹The punctuation has been changed to follow the ms. (cf. Sowa, 125:16). I have not followed Reckow's rather drastic emendations for this line (Die Copula, p. 46), since there

The parallels as well as the divergences between the passages can thus be closely analyzed. In the first place, where Garlandia gives no reason for his statement that ". . . discantus

seems no justification for regarding universo in the ms. as "unrichtig." His emendation of quod to quo (125:17), though not drawn attention to, seems correct.

(. . . scarcely or never without copula can a perfect understanding of discantus be reached, because in its type it makes discantus melodious and pleasing, although by doing so it loses nothing of its rectitudo. And it should be noted, that copula is that medium which is said to be found between discantus and organum speciale, in this way dividing one subtly from the other. Whence copula is that which is performed in a rectus mode of equipollence throughout. It is described in another way, thus: copula is that everywhere <in which there occurs> a number of notes [punctorum] joined by their lines, and this under the category of the first mode and with a recta series of figures, as can be seen in the Alleluia of "Posui" both in the tripulum part and in the second part, and this according to the disposition of discantus; but now according to the disposition of organum speciale, as can be seen in the duplum of "Iudea et Ierusalem." Punctus, as used here, is that where there occurs a number of actus attributed specifically to a certain terminus of the notes. But note that vox, figura, sonus, punctus, actus are the same; yet they differ in this way: that figura and punctus more often represent plurality, but the others not.)

⁸⁰(Having discussed discantus, we must now discuss copula, which is very important for discantus, because discantus is never perfectly known without the help of copula. Whence copula is said to be that which is between discantus and organum. Copula is described in another way: copula is that which is performed in a rectus mode with the tenor-tone being equipollent. It is described in another way: copula is that, wherever there occurs a number of puncti. Punctus, as used here, is wherever there is a number of tractus. And that part [i.e., the copula] is divided into two parallel parts. Whence the first part is called the antecedent, but the second the consequent, and each part contains a number of tractus. Whence a tractus occurs, wherever there occurs a number of intervals in a uniform manner, for example unisons or whole-tones, according to an arranged number in a fixed order. And that is enough to describe the <copula>.)

numquam perfecte scitur nisi mediante copula,"⁸¹ the St. Emmeram Anonymous gives what seems, at least at first glance, to be a reason:

. . . eo quod in suo genere discantum reddit melicum et placentem, licet in hoc sue rectitudinis nil amittat.⁸²

This is, however, something of an equivocation. The fact that copula makes discant "melicum et placentem" does not itself aid in the perfect understanding of discant. And it is not all discant that is made "melicum et placentem" but only that part of discant which is called copula.⁸³ This is made clear at the end of the chapter:

⁸¹ (. . . discantus is never perfectly known without the help of copula.)

⁸² (. . . because in its type it makes discantus melodious and pleasing; although by doing so it loses nothing of its rectitudo.)

⁸³ The concept of copula being a part of discant is stressed more than once in the treatise.

In quinto de discantu, et illud in duo membra diuiditur in quorum primo agit actor simpliciter de discantu, in secundo specialiter de copula, que est membrum ipsius discantus. . . . [11:20-22]

(The fifth chapter is about discant, and that is divided into two parts, in the first of which the author deals simply with discantus, in the second specifically with copula, which is a part of discantus itself. . . .)

Facta superius mentione de organo in generali prout est genus ad omnes cantuum species generale seu etiam radicale, et illud a nobis, et aliis discantus specialiter appellatur, in hoc loco de quadam ipsius specie siue membro que copula dicitur uult actor propositum declarare. . . . [125:5-9]

(Having made mention above of organum in general, as a genus that is general or even basic to all species of music, and that genus by us and by others is specifically called discantus, in this place the author wants to make clear his intentions regarding a certain species or part of it which is called copula. . . .)

Hic uult actor assignare differentiam inter copulam et discantum, dicens quod copula delicatiore modo et subtiliore voce quam discantus precipue prouulgatur, licet in figuris et rectitudine temporum sint eadem. Et ex hoc resultat quod inter discantum et organum speciale sit copula mediatrix. Comitatur namque cum discantu in figuris et in recta proportione temporum et mensura, tamen organo speciali in prolatione uocum melicose sonitu redimita. [126:1-8]⁸⁴

Copula has the same notation⁸⁵ and the "rectitudo" of discant, but it is performed "delicatiore modo et subtiliore voce" than discant - it is performed in fact with the kind of voice associated with organum speciale, a voice "melicose sonitu redimita."

It is these features - the modal rhythm of discant and the voice quality of organum speciale - that for the St. Emmeram

⁸⁴ (Here the author wants to attribute the difference between copula and discantus, saying that copula is especially produced in a more delicate manner and with a more subtle voice than discantus, although in the notation and rectitudo of the tempora they are the same. And from this it results that between discantus and organum speciale, copula is the mediator. For it is a companion with discantus in the notation and in the correct proportion of the tempora and in the measure, but with organum speciale in the performance of the voices, which is wreathed with a melodious sound.)

⁸⁵ There appears at first to be a contradiction between this passage and the introductory comments [11:20-23] quoted earlier. This can be explained by the slightly differing meanings of the words figmentum and figura. Figmentum means representation or image, hence the overall appearance of the notation; figurae are the actual ligatures themselves. See 14:12-13:

Figura est, ubicunque fit multitudo punctorum simul iunctorum per suos tractus ut hic .

(A figura is wherever there is a number of notes joined together by their lines, as here .)

Copula uses the same ligatures as discant and has the same strict modal rhythm, but its overall appearance, employing the parallel phrases of melodic sequence, is different. (It is interesting to note that figura was also a grammatical term for the shape of an individual letter. See Isidore of Seville, Etymologiae [ed. Lindsay] I, 3, 1, and Gushee, "Questions of Genre. . . .," Gattungen, p. 384.)

Anonymous justify the designation of copula as "inter discantum et organum speciale . . . mediatrix." For if we return to the original passage (125:9-26) and its Garlandian forerunner, it can be seen that neither author states explicitly at that point why copula is "inter discantum et organum." It has been shown,⁸⁶ however, that for Garlandia the phrase can be interpreted both factually and stylistically. Factually because copula passages do in fact occur in the sources between passages of organum and passages of discant; and stylistically, because copula is characterized by the modal rhythm of discant and the held-tone tenor of organum ("recto modo aequipollente unisono"). The St. Emmeram Anonymous has carefully concentrated in his imitatio passage on the physical position of copula. "Illud medium," "reperiri," and the phrase "unum ab altero subtiliter per hoc dividendo," are all chosen to emphasize the actual location of copula, standing physically between organum and discant, rather than any stylistic characteristics.

The next sentence has been changed from Garlandia. Where Garlandia wrote that the copula is performed "recto modo aequipollente unisono," the Anonymous of St. Emmeram has "recto modo aequipollentie universo." It appears that the St. Emmeram Anonymous is using aequipollentia in its abstract sense, and universo adverbially;⁸⁷ hence, the copula is performed "with the

⁸⁶See p. 69.

⁸⁷Cf. 127:33; "in universo," and 11:27, 33:1, 75:29, 118:30. It is also possible that an in is missing from the ms. The sense would be the same.

rectus mode of equipollencethroughout." If this is correct, then the Anonymous of St. Emmeram nowhere discusses the kind of tenor-note the copula has.

The remainder of the Emmeram passage is a conflation of the last several sentences of Garlandia, and there are some significant alterations. Where Garlandia wrote: ". . . copula est id, ubicumque fit multitudo punctorum,"⁸⁸ the Anonymous of St. Emmeram expands the phrase to read:

. . . copula est id ubique qu<o fit> multitudo punctorum simul iunctorum per suos tractus. . . .⁸⁹

thus considerably changing the sense. As has been shown,⁹⁰ Garlandia used the word punctus to mean section or phrase in the music. The Anonymous of St. Emmeram is referring back to an earlier definition in his own treatise:

Figura est, ubicumque fit multitudo punctorum simul iunctorum per suos tractus ut hic . [14:12-13]⁹¹

which in turn is taken from a different chapter of Garlandia's treatise ("de repraesentatione figurarum"):

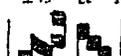
Figura ligata est, ubicumque fit multitudo punctorum simul iunctorum per suos tractus. [II:8]⁹²

Rather than emphasizing the sectional and balanced nature of

⁸⁸ (. . . copula is that where there is a number of puncti.)

⁸⁹ (. . . copula is that everywhere <in which there occurs> a number of puncti joined by their lines.)

⁹⁰ See pp. 63-65.

⁹¹ (Figura is wherever there is a number of notes [punctorum] joined by their lines, as here: .)

⁹² (Figura ligata is wherever there is a number of notes [punctorum] joined by their lines.)

the copula then (for he leaves out entirely the comments of Garlandia about "tractus," "duo aequalia," and the "antecedens" and "consequens"), the St. Emmeram Anonymous simply states that the copula contains a number⁹³ of ligatures. This is insufficient information, of course, since this does not distinguish the copula from organum or discant. However, this is immediately qualified by the next phrase:

. . . et hoc sub specie primi modi et sub recta serie figurarum. . . .⁹⁴

which corresponds to Garlandia's

. . . multitudo specierum univoce, ut unisoni aut toni, secundum numerum ordinatum ordine debito.⁹⁵

though species is used in a different sense (in Garlandia it refers to species of intervals), and the first mode is mentioned since the author is thinking of a specific piece, though which part of that piece it is we do not yet know.

The Anonymous of St. Emmeram therefore describes copula as a type of music which is found between organum and discant passages, which is performed in strict modal rhythm, and which has a number of ligatures in the first mode in regularly defined succession.

Were it not for Garlandia's exposition of the copula and

⁹³For the interpretation of multitudo as "a number," see p. 57.

⁹⁴(. . . and this under the category [specie] of the first mode and with a recta series of figures.)

⁹⁵(. . . a number of intervals [specierum] uniformly, for example unisons or whole tones, according to an arranged number in a fixed order.)

his careful and rational description of its primary characteristic, the melodic sequence, it is uncertain whether the description of the Anonymous of St. Emmeram would be sufficient explanation for a modern reader. With Garlandia's exposition as a background, however, even the somewhat incomplete discussion of the St. Emmeram Anonymous becomes clarified. It must be borne in mind that the St. Emmeram Anonymous was writing in 1279, no more than a few decades after Garlandia,⁹⁶ and that he was obviously very familiar with Garlandia's treatise. Perhaps he would have expected his readers to be so also.

But to return to the original passage: the author cites two pieces by name which are said to contain examples of the copula. The first is the Alleluia from the three-part "Alleluia Posuí," the second is the two-part "Iudea et Ierusalem."

In neither case does the St. Emmeram Anonymous cite a specific passage to exemplify the copula. However, the choice of these two pieces is of great interest, for it allows comparison with the copula-theory of both of the other thirteenth-century theorists under consideration here. Garlandia makes no mention of any specific piece in his discussion of the copula, and yet, as has been shown,⁹⁷ his description fits a particular passage in "Iudea et Ierusalem" remarkably well. It has in fact been suggested that Garlandia had that exact piece in mind when he was writing his description of the copula.⁹⁸

⁹⁶See Appendix.

⁹⁷See pp. 71-73.

⁹⁸See Reckow, Die Copula, p. 47.

"Alleluia Posui Adiutorium" is referred to specifically by Anonymous IV in the seventh chapter of his treatise, and it will therefore be appropriate to discuss that piece and its copula below. Its mere mention at this point in the St. Emmeram treatise, however, shows a significant departure from Garlandia. There is no indication in Garlandia's discussion that he was considering any example of copula in more than a two-part piece. The Anonymous of St. Emmeram, on the other hand, specifically refers to a three-part piece for an example of copula.

Copula, then, according to the St. Emmeram Anonymous, can occur both in two-part and three-part pieces. If it occurs in a three-part piece, it is "secundum dispositionem discantus" (presumably because the upper parts form a kind of discant of their own); if in a two-part piece, it is "secundum dispositionem organi specialis."

One problem remains in the final two sentences of the copula passage:

Punctus prout hic sumitur est illud, ubi fit multitudo actuum alicui punctorum termino singulariter attributa. Nota tamen quod vox, figura, sonus, punctus, actus idem sunt; in hoc tamen differunt quod figura et punctus sepius pluralitatem representant, alia uero non.
[125:22-26]⁹⁹

It appears as though the author has changed his mind here about

⁹⁹ (Punctus, as used here, is that where there occurs a number of actus attributed specifically to a certain terminus of the notes. But note that vox, figura, sonus, punctus, actus are the same; yet they differ in this way: that figura and punctus more often represent plurality, but the others not.)

what he intends punctus to mean. The word is certainly a "verbum aequivocum," as became clear in the discussion on the Garlandia passage previously. However, the reader could not have failed to interpret punctus above ("multitudo punctorum simul iunctorum per suos tractus") in the sense of a single note. As has been shown, the passage is a direct quotation from earlier in the treatise where the meaning was unequivocal. Here, however, the meaning is different.

It will be remembered that in the parallel Garlandia passage, punctus is used to mean a section of the music (see the detailed discussion of this word on pages 63-65). And in order to draw attention to this change in usage, Garlandia used the phrase "ut hic sumitur" ("as used here"):

Punctus, ut hic sumitur, est . . .

The Anonymous of St. Emmeram does the same:

Punctus, prout hic sumitur, est . . .

The difference is that Garlandia brings in his explanation immediately after the new usage, whereas the St. Emmeram Anonymous seems to add his explanation only as an afterthought. And in so doing, he changes the meaning of the word. By referring back to Garlandia's phraseology, he seems to become aware of the discrepancy, and now explains the meaning of punctus in its Garlandian sense - the sense of a section within the music.

In order to understand the definition as the Anonymous of St. Emmeram gives it, we shall first have to examine briefly the force of some of the terminology he employs.

Punctus prout hic sumitur est illud, ubi fit multitudo actuum. . . .

Actus means a physical action, or the actual existence of a thing. The word is commonly found in treatises on Logic.

Petrus Hispanus uses actus to mean the action of a verb:

Secundus modus provenit ex eo quod aliqua determinatio potest referri ad diversa, ut "tu vidisti oculis percussus." . . . modo veriori est actus in verbo quam in participio.¹⁰⁰

In his discussion of the different types of logical possibilities, Boethius uses actus to mean actuality of existence:

. . . quaecumque ita sunt possibilea ut sint actu et opere, illa nulla ratione possunt non esse. . . .¹⁰¹

But the word in its musical meaning in the St. Emmeram treatise is clarified by the next sentence:

Nota tamen quod vox, figura, sonus, punctus, actus idem sunt. . . .¹⁰²

Actus, therefore, means some kind of note, specifically an actual written note as it occurs physically on the page.

"Punctus, as it is used here, is that where there occurs a number of actual written notes alicui punctorum termino singulariter attributa."

¹⁰⁰ Summulae Logicales, ed. Bocheński, 7:30 (p. 76).

(The second type comes from the fact that some conclusion can refer to different things, as "you saw the striking with eyes" . . . by a truer way is the action [actus] in the verb than in the participle.)

¹⁰¹ Commentarii in Librum Aristotelis ΠΕΡΙ ΕΡΜΗΝΕΙΑΣ, ed. Meiser, vol. 1, p. 172.

(. . . whatever things are possible both in actuality and in fact, those things can in no way not be. . . .)

¹⁰² (But note that vox, figura, sonus, punctus, actus are the same. . . .)

In order to understand the rest of the passage, it is necessary to know that in Grammar, the word punctus meant a mark of punctuation. The grammarian Victorinus writes:

Quando distinguitis, cum erit perfecta oratio et sensus concludetur, inter novissimam verbi litteram et primam insequentis in superiore parte versus punctum ponite aliud. . . .¹⁰³

That the word could appear in this sense also in the masculine singular is shown by the following passage from the Doctrinale of Alexander of Villedieu:

Pausat tripliciter lector; distinctio plena namque fit et media, fit subdistinctio terna. si suspensiva fiat constructio, quando pausabit, media poterit distinctio dici, si sit perfecta constructio. si tamen addi convenit, ut plena sententia possit haberi, si lector pauset, ibi subdistinctio fiet. completo sensu fiet distinctio plena; haec est periodus mutato nomine dicta. est metrum media distinctio; finis habetur versus periodus; est subdistinctio punctus.¹⁰⁴

This grammatical meaning informs the remainder of the passage. For the word terminus, which also has many different usages,

¹⁰³Keil, Grammatici Latini, vol. 6, p. 22.

(When you distinguish, when the speech will be finished, and the sense ended, between the last letter of the word and the first letter of the following word put another mark [punctum] on the upper part of the verse.)

¹⁰⁴Das Doctrinale des Alexander de Villa-Dei, ed. Reichling (New York: Burt Franklin, 1974), p. 156.

(The reader has three ways of pausing. There is a full distinctio, a medium one, and thirdly a subdistinctio. If the construction is suspended when he pauses, that can be called a medium distinctio, if there is a perfect construction. But if something needs to be added to make a full sentence, where the reader pauses, there will be a subdistinctio. When the sense is complete there will be a full distinctio; this is called a periodus in another name. The medium distinctio is a metrum; a periodus occurs at the end of a verse; a subdistinctio is a punctus.)

is employed here in a similarly grammatical sense. Terminus corresponds to Alexander's distinctio plena or periodus, and means a period. The phrase "alicui punctorum termino" is reminiscent of the phrase "finis punctorum," as the St. Emmeram Anonymous explains it earlier:

Et talis ordinatio usque ad pausationem que finis
punctorum dicitur. . . . [48:19-20]¹⁰⁵

(Here it must be borne in mind that punctorum is used here simply to mean "notes.") The similarity, and difference, in meaning between terminus and finis is succinctly explained by a medieval grammatical treatise entitled Differentiae Sermonum, and based on Isidore of Seville:

Inter terminum et finem hoc interest, quod terminus non
nisi manu ponitur, finis uel sermonis uel uoluntatis uel
cuiuscumque rei intelligi potest.¹⁰⁶

Clearly, then, terminus refers to the written period-mark.

Therefore, we have: "Punctus, as it is used here, is that where there occurs a number of actual written notes attributed specifically¹⁰⁷ to a certain period of the notes."

Period, in Latin as well as in English, refers not only to

¹⁰⁵ Also based directly on Garlandian usage:

Pausationum vel tractuum quaedam dicitur recta brevis,
quaedam longa, quaedam finis punctorum. . . . [VIII:3]
(Of the pauses or tractus one is called the recta brevis,
one a long, one the end of the notes. . . .)

(And this arrangement goes up to the pause, which is called the end of the notes. . . .)

¹⁰⁶ Keil, Grammatici Latini, supplementum, p. 276.

(Between terminus and finis there is this difference, that terminus is placed with the hand, but finis can be understood of speech, or of will, or of anything.)

¹⁰⁷ Singulariter is a term from Logic, meaning "in relation to one object." See Revised Medieval Latin Word-List, ed. Latham (London: Oxford University Press, 1965; repr. 1973), s.v. "singulariter."

the mark of punctuation, but also to the entire sentence. In the same way, colon and comma refer to parts of the sentence as well as to punctuation marks:

Ut puta oratio, quando integra est, periodos est;
partes ipsius periodi cola et commata sunt.¹⁰⁸

Thus it is clear that with his added definition, and grammatical parallel, the Anonymous of St. Emmeram is concentrating now on the meaning of punctus as a self-contained section of the music - the same meaning that Garlandia used in his discussion of the copula. This is what he is referring to in the next sentence, when he writes that figura and punctus can often represent a "pluralitatem." Figura can mean both the shape of a single note and the shape of a whole ligature, and punctus can mean both a single note and a whole section of music.

Apart from its direct link to Garlandia, this interpretation can be sustained by two further references in the St. Emmeram treatise itself. Firstly, one of the verses that close the chapter on copula reads in part:

. . . et punctus in se multos tenet actus. [126:21-22]¹⁰⁹
and secondly, the next usage of the word occurs in the following chapter on organum, where, as in the parallel Garlandian passage, the author clearly uses punctus to mean a section within a musical composition:

¹⁰⁸ Pompeii Commentum Artis Donati, in Keil, Grammatici Latini, vol. 5, p. 133.

(For example a speech, when it is whole, is a period; parts of the period are colons and commas.)

¹⁰⁹ (. . . and a punctus holds in itself many actual written notes.)

Cum alio dicitur, quicquid profertur per aliquam rectam mensuram ut dictum est superius scilicet cum equipollentia, <cui> se tenet uel habet in universo usque ad finem alicuius puncti, ubi se conueniunt secundum rectam concordantiam et perfectam. [127:31-35]¹¹⁰

The overall discussion of the copula in the St. Emmeram treatise can therefore, despite the equivocation over the use of punctus, be seen to follow closely that of Garlandia:

1] The copula is between discant and organum. 2] It is performed in modal rhythm throughout. 3] It has a number of ligatures (and/or a number of sections), and the ligatures are in the first mode and in a strictly defined succession. 4] Examples can be found in the three-part "Alleluia" of "Alleluia Posui" and the two-part "Iudea et Ierusalem." 5] The copula is performed with the modal rhythm of discant but the special voice quality of organum.

The closing Leonine verses of the chapter, interesting though they are in themselves, do not add any specific information to the prose explanation, except for one verse which provides a link to the next treatise to be considered. The verse reads:

Vox prior e ternis tractum det ut hic  fore cernis
[126:35]¹¹¹

¹¹⁰ Rather than changing universo to unisono in this passage (on the analogy of Reckow's emendation at 125:16 [see footnote 79]), I read cui for Sowa's cuius. The manuscript has a single "c" with an abbreviation symbol, and the dative would appear to be more appropriate than the genitive in the context.

(Cum alio is said to be that which is performed through some recta mensura as has been said above, that is to say with its equipollentia, <to which> it holds or has itself throughout up to the end of any section [puncti], where they come together according to a correct and perfect concord.)

¹¹¹ (The first note of the three needs a line, as you can see here: )

which the author glosses with the following sentence:

Hic ostendit actor modum quorundam notatorum seu
magistrorum sic copulam protrahentes. [126:33-34]¹¹²

Reckow has pointed out how ambiguous the ligature is,¹¹³ yet he has not considered one aspect of the remark. Protrahere is used throughout the treatise in the sense of "draw" or "notate," but it also means to lengthen or protract, and lengthening the first note in the first rhythmic mode is exactly what is described as the first irregular mode by Anonymous IV.

The Copula According to Anonymous IV

The treatise of Anonymous IV is the only one of the three that does not give, somewhere near the beginning, a discussion of the division of musica mensurabilis into three parts. Indeed, the copula and its theory are buried in a farrago of information of other kinds and must be carefully extracted from their surroundings.¹¹⁴

The first mention of the copula occurs at the beginning of the fifth chapter, which opens as follows:

¹¹²(Here the author shows the method of certain notators or masters thus protrahentes the copula.)

¹¹³Die Copula, pp. 49-50. "Copula," in Handwörterbuch, p. 6.

¹¹⁴The copula theory of Anonymous IV has been discussed by Reckow (Die Copula, pp. 51-54, and "Copula," in Handwörterbuch, pp. 6-7), but he has again missed the point. ("Der Copula-Begriff des Anonymus 4 bleibt dabei merkwürdig vage." [Die Copula, p. 52].) He is right, however, in saying that in Anonymous IV the copula "wird aber nicht mehr als selbständige dritte Species eigenen Charakters zwischen Discantus und Organum angesehen." ("Copula," in Handwörterbuch, p. 6)

Sequitur de triplicibus et quadruplicibus et copula.
[77:9]¹¹⁵

In fact, the passage on the copula does not come until the next chapter, and even then the copula is not mentioned by name. The passage occurs during a discussion of the different types of tripla:

Tertia diversitas est cum eodem tenore,¹¹⁶ sed in duplo et triplo per modum extraneum se habet, ut prima <nota> esset nimis longa et <secunda> nimis brevis, et ut videatur participare temporaliter inter discantum et organum; et neque est discantus neque organum. Sed bene convenit in terminis cum primo,¹¹⁷ ut praedictum est.
[83:11-15]¹¹⁸

The phrase

ut videatur participare temporaliter inter discantum et organum¹¹⁹

corresponds to Garlandia's

. . . copula dicitur esse id, quod est inter discantum et organum.¹²⁰

¹¹⁵ (Here follows a discussion about three-part settings and four-part settings and copula.)

¹¹⁶ "The same tenor" means a long-held tenor on only one or two notes. See 83:6-8:

Altera diversitas est, quando primus in toto suo puncto non retinet nisi duo puncta in eodem sono vel diverso. . . .

(Another type is when the tenor in its whole punctum only keeps two notes on the same pitch or different pitches. . . .)
[Notice the two distinct meanings of punctus/-um.]

¹¹⁷ Primus means the tenor part; see previous footnote. (Compare the use of terminus with the St. Emmeram passage discussed above.)

¹¹⁸ (The third type is with the same tenor, but in the duplum and triplum it has a different mode, so that the first <note> is too long and <the second> too short, so that it seems to share for a time the characteristics of both discantus and organum; and it is neither discantus nor organum. But it agrees appropriately at the ends with the primum, as was mentioned above.)

¹¹⁹ (. . . so that it seems to share for a time the characteristics of both discantus and organum. . . .)

Here, Anonymous IV concentrates on the stylistic characteristics of copula. It has the long-held tenor of organum ("eodem tenore" ". . . quando primus in toto suo puncto non retinet nisi duo puncta in eodem sono vel diverso")¹²¹ and the upper parts are in some kind of modal rhythm.

It is important to observe that Anonymous IV is describing the copula in the context of a discussion of various kinds of tripla (there is no indication that a copula can also occur in a two-part piece). The upper parts, therefore, must be in mutually corresponding rhythm. Normally, this would be the strict modal rhythm of discant. Here, however, Anonymous IV says that the rhythm is "modum extraneum . . . ut prima <nota> esset nimis longa et <secunda> nimis brevis."¹²² This is exactly the rhythm that Anonymous IV designates in his next chapter as the first irregular mode.

Septimum capitulum tractat de modis irregularibus; qui modi dicuntur voluntarii et sunt multiplices.

Quorum unus est, qui procedit per unam longam duplicem <et> per semibreve vel minimam et longam debitam, et sic per talem brevem et longam continuando etc., ut patet in "Alleluia Posui adiutorium," quoniam ibi ponatur loco copulae sub tali forma: <f> duplex longa, fe coniunctim, fd coniunctim, ec, df, gf cum plica, dc cum plica, a duplex longa cum c coniunctim. Et iste modus dicitur primus irregularis, et bene competit organo puro. [84:12-20]¹²³

¹²⁰(. . . copula is said to be that, which is between discantus and organum.)

¹²¹(. . . the same tenor. . . . when the tenor [primus] in its whole section only keeps two notes on the same pitch or different pitches. . . .)

¹²²(. . . a different mode, so that the first <note> is too long and <the second> too short. . . .)

¹²³(The seventh chapter deals with irregular modes. These

The irregular modes are associated with organum purum, as the final sentence of this passage explains, as well as a sentence later in the chapter:

Nota, <quod ad> cognitionem puri organi praedicti modi irregulares sufficient cum quibusdam aliis postpositis. [85:23-24]¹²⁴

but here, in the discussion of the first irregular mode, a copula is specifically mentioned. Again "Alleluia Posui Adiutorium" is cited - the same piece given as an example of copula by the Anonymous of St. Emmeram - but here the actual names of the notes are given where the copula is to be found. The passage occurs in the opening Alleluia of the piece, as indeed the St. Emmeram Anonymous specified ("in Alleluia de Posui").

The passage is here reproduced from the Florence manuscript:¹²⁵

modes are called voluntary, and are of many kinds.

One of them proceeds through one longa duplex, <and> a semibrevis or minima, and a longa debita, and continues in this way with just such a brevis and longa, etc., as can be seen in "Alleluia Posui Adiutorium," since there is put in the place of the copula in the following form: <f> duplex longa, fe in ligature, fd in ligature, ec, df, gf with a plica, dc with a plica, a duplex longa in ligature with c. And that mode is called the first irregular mode, and is well suited for organum purum.)

¹²⁴ (Note <that for> the understanding of organum purum the aforementioned irregular modes will suffice together with certain other things mentioned later.)

¹²⁵ F. folio 36v.



And in the Montpellier manuscript¹²⁶ the passage has even been notated with the f duplex longa and the a duplex longa that Anonymous IV specifies:



le

So this is clearly the passage to which Anonymous IV is referring.¹²⁷ But what makes it a copula? What distinguishes this passage from the music that surrounds it?

For the answer we need only glance at the phrase that immediately follows these notes in the manuscripts. The distinctive

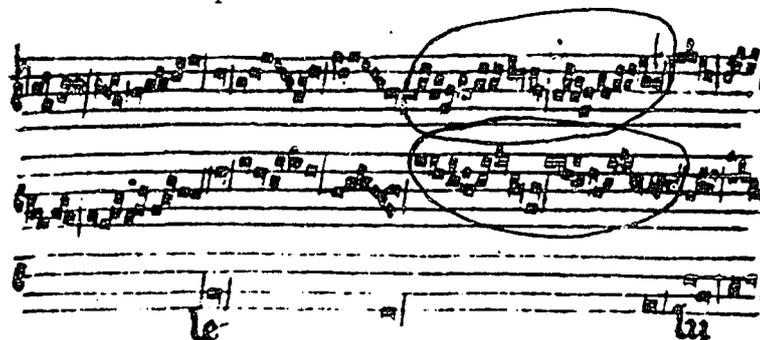
¹²⁶Mo. folio 17.

¹²⁷Coussemaeker (*L'art harmonique aux xii^e et xiii^e siècles* [Paris: Durand, 1865], p. 272) and Reckow (*Der Musiktraktat*, . . . Vol. 1, p. 103) have identified the passage; and Waite ("Discantus, Copula, Organum," *Journal of the American Musicological Society* 5 [1952]:85) reproduced and transcribed it. None of them, however, understood the copula or looked at the next few notes in the manuscripts.

feature of the music here is melodic sequence. In this case a particular kind of melodic sequence is employed, with each phrase starting out in identical fashion and only turning at the end to a different cadence (a form of "ouvert" and "clos" endings).

It will also be immediately noticed that the upper part follows exactly the same procedure. This explains the comment of the St. Emmeram Anonymous, that the copula in this piece can be seen "tam in triplo cantu quam in secundo." [125:19-20]¹²⁸

Florence manuscript:



Montpellier manuscript:

(Continued)

¹²⁸ (. . . both in the triplum part and in the second part.)



Thus it is clear that, even though he does not describe the copula in detail, Anonymous IV had in mind the same essential feature as his predecessors - the melodic sequence.

Johannes de Garlandia appears to restrict the copula to a two-part piece; the Anonymous of St. Emmeram cites examples in both two- and three-part pieces; and Anonymous IV discusses the copula only in connection with tripla. The recognizable feature remains the same, but the description changes. Johannes de Garlandia provided a detailed description of the copula, and showed how the copula as a separate species of music could be distinguished not only by its melodic construction, but also by its rhythmic nature. It had the held-tone tenor of organum and the modal rhythm of discant. In two-part music these were distinctive features, clearly separating the performance of copula from that of organum or discant. The Anonymous of St. Emmeram says that copula can also occur in three-part music. In three-part music, however, the original distinction between

the rhythm of organum and the rhythm of discant no longer obtains. All the music is pervaded by the use of modal rhythm. The St. Emmeram Anonymous, therefore, maintains a performance differential by saying that copula has the rhythm of discant, but the voice-quality of organum. Anonymous IV mentions the copula only in connection with three-part music, but he also retains the concept of a distinction in performance by saying that the copula uses the first of the irregular modes, which are associated with organum purum.

Whether the two later authors are rationalizing, and specifying performance characteristics simply because of their Garlandian model, is impossible to determine. However, the fact that Anonymous IV had some specific details of performance in mind, at least for "Alleluia Posui Adiutorium," is clear from a passage towards the end of the sixth chapter of his treatise in his discussion of the different kinds of tripla:

Tertia diversitas <secundae> triplicitatis est, quando in principio habet punctum delectabilem sive placentem tardo modo sumptum, et postmodum in secundo puncto modum velocem non ita tardum secundum aliquem modum discantus, et postmodum in tertio aliquem modum diversum et extraneum ab ipsis, ut supradictum est. Quae omnia patent in Alleluia Posui Adiutorium magno triplo et in multis aliis.
[83:25-84:1]¹²⁹

¹²⁹This passage has been discussed, though very differently interpreted, by Gullo (Das Tempo in der Musik des XIII und XIV Jahrhunderts [Bern: Paul Haupt, 1964], p. 42).

(The third type of the <second> style of tripla is when it has a pleasant or pleasing punctum at the beginning performed in a slow mode, and afterwards in the second punctum a fast mode, but not as slow as a certain mode of discantus, and afterwards, in the third, some diverse mode, different from those, as was discussed above. And all these things can be seen in the great triplum "Alleluia Posui Adiutorium," and in many others.)

Here punctum is a section of the music defined by the long notes of the tenor.¹³⁰ As can be seen from the music,¹³¹ the first section (over the tenor note G) begins with longae duplices and contains several separate longae (= "tardo modo sumptum"): the second section (over the tenor note A) begins with longae but continues with currentes ("modum velocem"); and the third section (over the tenor note F) is the copula, which Anonymous IV earlier described as being performed "per modum extraneum" (= "aliquem modum diversum et extraneum"). The music then continues with a discant section.

The image displays three systems of musical notation. The first system consists of two staves with a large initial 'I' and a circled '1' below it. The second system also consists of two staves, with circled '2' and '3' below it. The third system consists of two staves with the text 'ya.' written below the bottom staff.

¹³⁰ See above, footnote 115.

¹³¹ F. folio 36-36v.

Whatever the characteristics of performance associated with the copula may be (and they appear to change from theorist to theorist), the concept of the copula as it appears in the theoretical sources remains consistent. Throughout the period of Notre Dame theory, the copula was viewed as a special entity, whose primary characteristics were sectionalization and melodic sequence over a held tenor-tone. We can see that this concept, framed by Garlandia, was understood and followed by both the major writers on Notre Dame theory in the later thirteenth century; and a close analysis of these later theorists, as well as of the musical examples they cite, serves fully to corroborate this interpretation of Garlandia's original precepts.

CHAPTER III

DISCANTUS

Of the three species of music as defined by Johannes de Garlandia, the first to be discussed is discantus. All three authors - Garlandia, the Anonymous of St. Emmeram, and Anonymous IV - devote the majority of their treatises to the problems and possibilities raised by this new development in music - the rhythmic modes, ligatures, notation, rests, the combining of modal rhythms, consonance and dissonance.¹ All

¹These issues have been dealt with in considerable detail by the majority of scholars working on the music and theory of Notre Dame, and do not therefore serve as the focal point for this chapter. General studies on the rhythmic modes include William Waite, The Rhythm of Twelfth-Century Polyphony: Its Theory and Practice, Yale Studies in the History of Music, vol. 2 (New Haven: Yale University Press, 1954); Willi Apel, The Notation of Polyphonic Music 900-1600 (5th edition, Cambridge: Mediaeval Academy of America, 1961); Wolf Frobenius, "Modus (Rhythmuslehre)," in Handwörterbuch der musikalischen Terminologie (Wiesbaden: Franz Steiner, 1971-); Gordon Anderson, "Johannes de Garlandia and the Simultaneous Use of Mixed Rhythmic Modes," Miscellanea Musicologica 8 (1975); Ian Bent, "Rhythmic Modes," in The New Grove Dictionary of Music and Musicians. Important recent studies on modal notation and related problems include: Fritz Reckow, "Proprietas und Perfectio," Acta Musicologica 39 (1967):115-143; Rudolf Flotzinger, Der Discantussatz im Magnus Liber und seiner Nachfolge: mit Beiträgen zur Frage der sogenannten Notre-Dame-Handschriften (Wien: Hermann Böhlaus, 1969); Wolf Frobenius, "Zur Datierung von Francos Ars Cantus Mensurabilis," Archiv für Musikwissenschaft 27 (1970):122-127; Erich Reimer, Johannes de Garlandia: De Mensurabili musica, vol. 2, Kommentar und Interpretation der Notationslehre (Wiesbaden: Franz Steiner, 1972); Rebecca Baltzer, "Notation, Rhythm, and Style in the Two-Voice Notre Dame Clausula" (Ph.D. dissertation, Boston University, 1974); Edward Roesner, "The Manuscript Wolfenbüttel, Herzog-August-Bibliothek, 628 Helmstadiensis: A

three authors also devote a separate chapter to the definition and consideration of discantus in general terms, as a species to be differentiated from copula and organum.

Since the rhythmic, harmonic, and notational aspects of discantus have served as the main focus of Notre Dame studies in the past, this chapter will concentrate on the concept of discantus as a style, and will compare closely this concept as it is presented by the three theorists.

The associations of the word discantus itself are manifold, since different etymologies can be found. In the twelfth century the word began to be used as a translation for the Greek διαφωνία, or diaphonia, which in turn was synonymous with organum, meaning polyphony in general:

Dyaphonia est congrua vocum dissonantia. Hanc ergo dissonantiam discantum sive organum appellamus. [Anon. Schneider, 116]²

Discantus as the equivalent of diaphonia suggested the assumption of dis- as a parallel to dia- (δία-), the stress being on the concept of voices sounding "apart" or "at variance."³ At

Study of its Origins and of its Eleventh Fascicle" (Ph.D. dissertation, New York University, 1974); Leo Treitler, "Regarding Meter and Rhythm in the Ars Antiqua," The Musical Quarterly 65 (1979):524-558; Janet Knapp, "Musical Declamation and Poetic Rhythm in an Early Layer of Notre Dame Conductus," Journal of the American Musicological Society 32 (1979):383-407; Ernest Sanders, "Consonance and Rhythm in the Organum of the 12th and 13th Centuries," Journal of the American Musicological Society 33 (1980):264-286; and Gordon Anderson, "The Notation of the Bamberg and Las Huelgas Manuscripts," Musica Disciplina 32 (1978):19-67.

²(Dyaphonia is the agreeable discrepancy of voices. And so we call this discrepancy discantus or organum.)

³Cf. διαφώνεω, to sound discordantly or disagree.

about the same time are found references which associate dia- with duo-, thus stressing the idea of two voices singing simultaneously:

Organica enim constitutio ubique fit vel per diapente superius vel per diatessaron, quae diaphonia dicitur, dia id est dualis, phonia id est sonus.⁴

Diaphonia duplex cantus est.⁵

As Reckow⁶ and Flotzinger⁷ have shown, the term discantus started to be used in contrast with organum to denote a separate style, and the new word (discantus) became the one associated with an older technique (note-against-note style).

Towards the beginning of his treatise Johannes de Garlandia defines discantus as:

. . . aliquorum diversorum cantuum <con>sonantia secundum modum et secundum aequipollentis sui aequipollentiam.
[I:4]⁸

⁴ Anonymous Vivell (Commentarius in Micrologum), ed. Smits van Waesberghe (Expositiones in Micrologum Guidonis Aretini [Amsterdam: North-Holland Publishing Company, 1957]), p. 114.

(For an organal disposition occurs everywhere either through a fifth above, or through a fourth, and it is called diaphonia - "dia" that is dual, "phonia" that is sound.)

⁵ Montpellier Organum Treatise, ed. Eggebrecht (Ad Organum Faciendum [Mainz: B. Schott's Söhne, 1970]), p. 187.

(Diaphonia is double melody.)

⁶ Fritz Reckow, "Diaphonia," in Handwörterbuch der musikalischen Terminologie.

⁷ Rudolf Flotzinger, "Discant," in The New Grove Dictionary of Music and Musicians.

⁸ I have emended Reimer's text here (sonantia to consonantia) for several reasons. Firstly, it does not make sufficiently good sense as it stands. Sonantia can only be neuter plural, rather than the feminine singular of the more appropriate abstract noun. And with sonantia there would be no contrast between the con- and diversorum, which is the most significant

This leads straight into a discussion of the rhythmic modes, and no more is said about discantus until the eleventh chapter, where the definition is repeated with a small addendum:

Unde discantus est aliquorum diversorum cantuum <con>-
cordantia secundum modum et secundum aequipollentis
sui aequipollentiam per concordantiam. [XI:3]⁹

This is logical, since the previous two chapters have been devoted to the consideration of concordantiae and discordantiae,¹⁰ their types and proportions. The meaning of aequipollens is explained by the next sentence after the definition:

Et sunt tot species sicut et in modo a parte aequipollentis, qui dicitur secundus cantus, quot a parte tenoris, qui dicitur primus cantus. [XI:4]¹¹

feature of discant ("the sounding together of different . . ."). Secondly, one of the manuscripts (Brugge, Stadsbibliothek, 528) clearly has consonantia, and the omission of con-, a single symbol in manuscript abbreviations, would be an easy scribal error. Thirdly, all the later theorists of the thirteenth century who have imitated this definition of Garlandia's, use consonantia or concordantia: Lambertus - "Discantus vero est aliquorum diversorum generum cantus duarum vocum sive trium in quo trina tantummodo consonantia . . ." [CSI:269a]; Anonymous St. Emmeram - "Ad primum dicimus, quod discantus est aliquorum cantuum diversorum concordantia . . ." [122:20-22]; Franco - "Discantus est aliquorum diversorum cantuum consonantia . . ." [Reaney/Gilles, 2:1]; Anonymous IV - "Discantus est aliquorum diversorum cantuum concordantia." [74:1-2]; Anonymous II - "Discantus est aliquorum diversorum cantuum consonantia . . ." [CSI:311b].

(. . . the sounding together of certain diverse melodies according to mode and according to the equipollence of its equipollent part.)

⁹(Whence discantus is the concord of certain diverse melodies according to mode and according to the equipollence of its equipollent part through concord.)

¹⁰It should be noted that consonantia in Garlandia is a generic word, of which concordantia and discordantia are species: "Consonantiarum quaedam dicuntur concordantiae, quaedam discordantiae." [IX:2] (Some consonances are called concords, some discords.)

The abstract aequipollentia, however, is here used to refer to the concept of equipollence, whereby the value of a number of short notes is equipollent to the value of a smaller number of longer notes, or the values of the total number of notes in each part correspond.¹² This is made clear elsewhere in the treatise:

Item omnis figura ligata ultra tres suo proprio modo
reducitur ad tres per aequipollentiam. [VI:8]¹³

. . . longa contra longam vel breves aequipollentes
longae. [XI:10]¹⁴

. . . ut tot sint puncti secundum aequipollentiam a parte
secundi quot a parte primi vel e converso. [XI:11]¹⁵

Garlandia then goes on to say that for the tenor part and the upper part in discant, three things must be considered - sonus, ordinatio, and modus.

Sonus sumitur hic pro musica, ordinatio sumitur pro numero punctorum ante pausationem, modus sumitur pro quantitate brevium vel longarum. [XI:7]¹⁶

This is explained in more detail by a further group of things

¹¹ (And there are just as many species in the mode on the part of the aequipollens, which is called the second melody, as on the part of the tenor, which is called the first melody.)

¹² Aequipollentia is a term from Logic: see Chapter II.

¹³ (Likewise every ligature containing more than three notes is reduced to three in its proper manner by aequipollentia.)

¹⁴ (. . . a long against a long or breves aequipollentes to a long.)

¹⁵ (. . . so that there are as many notes according to aequipollentia on the part of the second melody as there are on the part of the first, or vice-versa.)

¹⁶ (Sonus is used here for the music, ordinatio is used for the number of notes before a pause, modus is used for the quantity of breves or longs.)

to be considered - modus, numerus, and concordantia.¹⁷ These three (notice the repetition of modus, the similarity between numerus and ordinatio ["ordinatio sumitur pro numero punctorum . . ."], and the connection between musica and concordantia) simply provide a way for Garlandia to discuss the relationship between the parts apart from their individual construction:¹⁸

In modo, ut sit longa contra longam vel breves aequipollentes longae. In numero, ut tot sint puncti secundum aequipollentiam a parte secundi quot a parte primi vel e converso. In concordantia, ut debito modo primus bene concordet secundo et e converso. [XI:10-12]¹⁹

¹⁷It is unlikely that Johannes de Garlandia would not have known the verse from the Book of Wisdom: "Sed omnia in mensura, et numero, et pondere disposuisti," (Liber Sapientiae 11, 21) to which Augustine added the three concepts that became widely disseminated in Scholastic philosophy - modus, species, ordo: "a quo est omnis modus, omnis species, omnis ordo; a quo est mensura, numerus, pondus;" (De Civitate Dei 5, 11 [ed. Weiraldon (London: Society for Promoting Christian Knowledge, 1924), vol. 1, p. 215]). See also Edgar de Bruyne, Etudes d'esthétique médiévale (Bruges, 1946; reprinted Geneva: Slatkine, 1975), vol. 3, pp. 4, 79-109, et passim.

¹⁸This explains why, in the previous list, Garlandia used the curious and rather unwieldy construction:

"Et sciendum est, quod a parte primi tria sunt consideranda, scilicet sonus, ordinatio et modus. . . . Et similiter a parte secundi ista supradicta, scilicet sonus, ordinatio et modus, sunt consideranda." [XI:6-8]

(And it should be known that in the first part three things must be considered, that is to say sonus, ordinatio, and modus. . . . And similarly in the second part those things mentioned above, that is to say sonus, ordinatio, and modus, must be considered.)

whereas here, when he discusses the two parts together, he writes:

"Et sciendum, quod primus et secundus in tribus simul et semel sunt considerandi. . . ." [XI:9]

(And it should be known that the first and second part must be considered at one and the same time in three things. . . .)

¹⁹(In mode: so that there may be a long against a long, or breves equipollent to a long. In number: so that there are as many notes according to their equipollence on the part

The author then expands upon this last sentence, and the notion of concordantia, by saying that the odd-numbered notes in one part must be concordant with the odd-numbered notes in the other.²⁰ But if two notes occur in place of one, then one of them can be discordant:

Sed duo puncti sumuntur hic pro uno, et aliquando unus eorum ponitur in <dis> concordantia propter colorem musicae, sit primus, sit secundus. Et hoc bene permittitur et licentiatur ab auctoribus primis et invenitur in organo in pluribus locis et praecipue in motellis etc. [XI:14-15]²¹

of the second melody as on the part of the first or vice-versa. In concord: so that in a fixed mode the first melody concords well with the second and vice-versa.)

²⁰ Unde regula: omne, quod fit <in> impari debet concordari omni illi, quod fit in impari, si sit in primo vel secundo, et hoc in primo modo sive secundo vel tertio.

(Whence the rule: everything that occurs <in> an uneven position must concord with everything that occurs in an uneven position, whether it is in the first or second part, and this in the first mode or second or third.)

The concords have been previously given as the unison, octave, fifth, fourth, and major and minor third:

Sic apparet, quod sex sunt species concordantiae, scilicet unisonus, diapason, diapente, diatesseron, ditonus, semiditonus. [IX:12]

(Thus it appears, that there are six species of concord, that is to say the unison, octave, fifth, fourth, major third, minor third.)

²¹I have emended Reimer's text here from concordantia to discordantia. This is the reading given by one of the later manuscripts (Paris, Bibliothèque Nationale, fonds latin 16663), but it seems to make more sense here. In the immediately preceding chapter, it is discordantia, not concordantia, that is associated with the word color:

Et sciendum, quod numquam ponitur discordantia ante imperfectam concordantiam, nisi sit causa coloris sive pulchritudinis musicae. [X:22]

(And it should be known that a discord is never put before an imperfect concord, neither for reasons of color, nor for the beauty of the music.)

[Continued]

Color was a word that referred to rhetorical embellishment, found in Cicero:

Ornatur igitur oratio . . . colore quodam [de Oratore 3, 25, 95]²²

and Quintilian:

Color totus orationis . . . [Institutiones Oratoriae 6, 3, 110]²³

and taken up with great zeal by the medieval rhetoricians.²⁴

The whole of the rest of the chapter on discant is taken up by an extensive listing of all the possible combinations of rhythmic modes that can occur between the upper part and the tenor.

These clear and concise comments on discantus, brief though they are, provided the basis for the rather more detailed treatment of the subject that is to be found in the treatises of the Anonymous of St. Emmeram and Anonymous IV.

Also it is discordantia, not concordantia, that would need to be

permittitur et licentiatur ab auctoribus primis.

(allowed and licensed by the first authors.)

(Cf. Waite, book review, Journal of Music Theory 17 (1973):323, and Reckow, Die Copula, p. 26, footnote 3.)

(But two notes may be used here in place of one, and sometimes one of them is placed in <dis>cord on account of the color of the music, whether it be the first or the second. And this is well allowed and licensed by the first authors and is found in organum in several places and especially in motets, etc.)

²²(Therefore the speech is ornamented . . . by a certain color.)

²³(The entire color of the speech . . .)

²⁴See R.R. Bolgar, The Classical Heritage (Cambridge: Cambridge University Press, 1954), pp. 211-213.

In the prologue to his treatise, the St. Emmeram Anonymous mentions the division of musica mensurabilis into three types,²⁵ following Garlandia, but, unlike Garlandia, he does not give a definition of discantus at this point. This is reserved for the antepenultimate chapter, where, just as in the Garlandian treatise, a detailed discussion of discantus precedes the consideration of copula and organum.

The chapter is divided into two parts, of which the first deals with discantus in general, and the second with copula, which is considered a species of discant.²⁶ The section on discantus begins with some lengthy scholastic reasoning as to why the treatise is arranged in the present order, and describes discantus as:

. . . genus et vinculum ad omnium cantuum genera principale vel radicale, nam in eo omnium cantuum genera continentur et ad eum sunt generaliter reducenda.
[122:4-6]²⁷

The reason for calling discantus "the principal or basic genus and bond for the genera of all melodies" is clear, for, with its modal rhythm, discant combines different melodies into a unified whole. This, of course, was the striking feature of

²⁵"Cuius mensurabilis musicae tria sunt genera, scilicet discantus, copula et organum." [5:6-8]

(And of mensurable music there are three types, that is to say discantus, copula, and organum.)

²⁶See Chapter II, footnote 83.

²⁷(. . . the principal or basic genus and bond for the genera of all melodies, for in it are the genera of all melodies contained and to it they must generally be reduced.)

discant and of the application of modal rhythm to simultaneously sounding parts. The fact that "the genera of all melodies are contained in it and must generally be reduced to it" must not be taken to mean that the three different genera of music can be confined within the rhythmic movement of discantus. The rhythm of organum per se is non-modal and is not constrained by the rhythmic rules of discant, as the last chapter of the treatise explains.²⁸ The Anonymous of St. Emmeram is referring to the genera of melodies (cantum), not the genera of musica mensurabilis.

After the introductory comments, the author presents a discussion of discantus that is an extremely close imitation of the passage in Garlandia. There are some changes in the text, however, which reveal the later historical position of the author, and are also significant for the light they throw upon the process of imitation and concept of auctoritas in thirteenth-century theory.

The definition is very similar to that of Garlandia, except that the Anonymous of St. Emmeram replaces the word consonantia with the word concordantia and leaves out Garlandia's per concordantiam at the end:

Ad primum dicimus, quod discantus est aliquorum cantuum diuersorum concord<ant>ia, secundum modum et equipollentiam sui equipollentis. [122:20-22]²⁹

²⁸See Chapter I.

²⁹I have emended Sowa's concordia to concordantia, on the analogy of several exactly similar abbreviations on the same and surrounding folios of the manuscript.

(Firstly we say that discantus is the concord of some

Concordantia is one of the species of consonantia, as in Garlandia, and as we are told in the previous chapter:³⁰

Consonantiarum igitur quedam dicuntur concordantie,
quedam discordantie. [116:3-4]³¹

and the same six consonantiae are mentioned as in Garlandia: the unison, octave, fifth, fourth, major third, and minor third.

The discussion then concentrates on the first group of three items that are important for discant, and these are the same as in Garlandia ("sonus et ordinatio et modus"), as is their explication, which is taken verbatim from Garlandia's treatise. The second group, however, is somewhat different, as is the discussion surrounding them. In the following lines the words that have been added to Garlandia's text by the Anonymous of St. Emmeram are underlined:

Et notandum est quod primus et secundus et omnes alii cantus in tribus ad minus sunt considerand*⟨i⟩* similes, scilicet in ordinatione, numero et concordantia, sepius et in modo. [122:30-33]³²

The sentence from Garlandia is given here for comparison:

diverse melodies, according to mode and the equipollence of its equipollent part.)

³⁰ Although at one point the author appears to use the words interchangeably:

. . . sic sex sunt consonantie uel concordantie. . . .
[117:6]

³¹ (Some consonances therefore are called concords, some discords.)

³² I have emended Sowa's consideranda to considerandi, and et in concordantia to et concordantia. Both these readings are in accordance with the manuscript.

(And it should be noted that the first melody and the second melody and all the other melodies should be considered similar in three things at least, that is to say in ordinatio, numerus, and concordantia, and often also in mode.)

Et sciendum, quod primus et secundus in tribus simul et semel sunt considerandi, scilicet in modo, in numero, in concordantia. [XI:9]³³

The three items in the St. Emmeram treatise are ordinatio, numerus, and concordantia, instead of Garlandia's modus, numerus, and concordantia, although the author adds "sepius et in modo" at the end. The explanation of the St. Emmeram's ordinatio is very similar to that for Garlandia's modus:

St. Emmeram:

. . . ut sit longa contra longam et sic de aliis, uel aliquod aliud equipollens. [122:33-123:2]³⁴

Garlandia:

. . . ut sit longa contra longam vel breues aequipollentes longae. [XI:10]³⁵

The Anonymous of St. Emmeram, however, adds an extra sentence to the discussion in order to explain the difference between the two:

In modo et in ordine sunt idem, nisi in hoc quod ordo ad omnes modorum conuenientias et equipollentias se extendit, modus solummodo ad se ipsum. [123:3-6]³⁶

The difference, then, is that the focus at this point, as it was in Garlandia, is on the relationship between the parts,

³³ (And it should be known that the first and the second melody should be considered at one and the same time in three things, that is to say in modus, in numerus, in concordantia.)

³⁴ (. . . so that there may be a long against a long, and thus for the others, or something else equipollent.)

³⁵ (. . . so that there may be a long against a long or breues equipollent to a long.)

³⁶ (In modus and in ordo mean the same, except in this, that ordo includes all the conformities and equipollences of the modes, but modus only includes itself.)

rather than on each individual part. Hence, the use of ordo/ordinatio in place of modus.

The other changes in the passage above (underlined in the quotation) are in order to extend the discussion to apply not just to two-part music, but to three-part or four-part. (The addition of similes merely provides a slight change of grammatical emphasis.) This can be seen in other places also.

Garlandia's explanation of concordantia:

In concordantia, ut debito modo primus bene concordet secundo et e converso. [XI:12]³⁷

has become:

In concordantia, ut in debito modo primus concordet secundo et tercio uel quarto, si ibi sint, uel e converso. [123:6-7]³⁸

And later, where Garlandia writes:

. . . si sit in primo vel secundo . . . [XI:13]³⁹

the Anonymous of St. Emmeram has:

. . . siue sit in primo siue in secundo siue in tercio et sic de aliis. [123:12-13]⁴⁰

The St. Emmeram Anonymous is, therefore, including three- and four-part music in his consideration of the different types of musica mensurabilis,⁴¹ whereas Garlandia in most of his treatise

³⁷(In concordantia, so that in a fixed mode the first part concords well with the second and vice-versa.)

³⁸(In concordantia, so that in a fixed mode the first part concords with the second and with the third or fourth, if they are there, or vice-versa.)

³⁹(. . . if it is in the first or second part . . .)

⁴⁰(. . . whether it is in the first or second or third part, and similarly for the others.)

⁴¹The portions of the treatise that deal with copula and organum do this also. See Chapters I and II.

deals only with two-part music.⁴² Indeed, the St. Emmeram Anonymous has some specific injunctions about three- and four-part settings. It is noteworthy that in the sentence quoted above concerning concordantia:

In concordantia, ut in debito modo primus concordet secundo et tercio uel quarto, si ibi sint, uel e conuerso. [123:6-7]⁴³

the author says that the tenor must concord with the other parts, or the other way round, not that the other parts must concord with each other. This is made even more specific in the following sentence (also an addition to Garlandia's text):

Nota tamen quod perfecte concordantie et medie sunt inter primum et alios specialiter apponende, quippe cum primus det aliis originem ac illis maneat fundamentum. [123:7-10]⁴⁴

"Perfect and medium" concords must be used between the tenor and the other parts because the tenor is the origo et fundamentum of the others. The perfect concords are the unison and octave, the medium concords are the fifth and fourth.⁴⁵ (The

⁴² Garlandia briefly discusses organum cum alio, and mentions the three-part Alleluia Posui Adiutorium. [IV:11]

⁴³ (In concordantia, so that in a fixed mode the first part concords with the second and with the third or fourth, if they are there, or vice-versa.)

⁴⁴ (But note that perfect and medium concords must be specifically put between the first part and the others, since in fact the first part gives the origin to the others and remains the foundation for them.)

⁴⁵ . . . concordantiarum quedam dicuntur perfecte scilicet vnisonus et dyapason, alie medie scilicet dyapente et dyatessaron. . . . [119:8-9]

(. . . some concords are called perfect, that is to say the unison and octave; others medium, that is to say the fifth and fourth . . .)

imperfect concords are the two types of third, so called because they cannot end any piece.)⁴⁶

The remainder of the discussion is a close parallel to that in Garlandia, although the St. Emmeram treatise has concordantia in the following passage in place of Garlandia's discordantia:

Sed sumuntur hic quandoque duo puncti uel tres pro vno uel loco vnus, quorum vnus ponitur in concordantia siue sit primus siue vnus aliorum propter colorem music. [123:13-16]⁴⁷

The manuscript clearly reads concordantia, and there appears less justification for emendation than in the case of the Garlandia treatise. In the first place, there is no mention of the practice needing to be excused, as there is in Garlandia. In fact, the passage in the St. Emmeram treatise that is modeled on the Garlandian passage about permission and license occurs earlier on, in the chapter on consonantiae, which is presumably another reason why it is not used here:

Hic ostendit actor, quomodo permissum est et licentiatum ab actoribus primis, inter colores musicos siue concordantias discordantias seminare, ad hoc ut concordantia quelibet dulcior et competentior habeatur. [120:29-32]⁴⁸

⁴⁶ . . . alie imperfecte tamen concordant scilicet ditonus et semiditonus et hac de causa non possunt cantum aliquem terminare. [119:9-11]

(. . . others, however, concord imperfectly, that is to say the major third and minor third, and for this reason they cannot end any melody.)

⁴⁷ (But sometimes two notes or three are used here instead of one or in the place of one, and one of them is placed in a concord whether it is the first or one of the others on account of the color of the music.)

⁴⁸ The Garlandian sentence reads:

Et hoc bene permittitur et licentiatur ab auctoribus

In the second place, as this passage shows, color is used to refer to concords ("colores musicos sive concordantias"), not to discords, as it is in Garlandia.

After the verses that provided the justification for the discussion of discantus, the author proceeds to explain briefly the nature of falsa musica or musica ficta, saying that it is sometimes necessary in discant in order to achieve the proper concords. The second half of the chapter on discantus deals with copula, and this is discussed in Chapter II above.

Written only a few years after the treatise of the Anonymous of St. Emmeram,⁴⁹ the section of the treatise of Anonymous IV that deals with discantus is fuller and more detailed than either of its forerunners.⁵⁰ There is thoroughness and clarity in place of concision. This would lend credence to Reckow's hypothesis that the treatise was designed as a comprehensive commentary on the work of Garlandia for relatively

primis et invenitur in organo in pluribus locis et
praecipue in motellis etc. [XI:15]

(And this is well allowed and licensed by the first authors and is found in organum in several places and especially in motets, etc.)

(Here the author shows, how it is allowed and licensed by the first authors, to sow discords amongst the musical colores or concords for this reason, that any concord might be deemed sweeter and more appropriate.)

⁴⁹See Appendix.

⁵⁰There is no evidence that Anonymous IV knew the treatise of the Anonymous of St. Emmeram, though he was, of course, thoroughly conversant with that of Garlandia.

untrained and provincial monks.⁵¹

The section begins with an abbreviated version of the by-now standard definition:

Discantus est aliquorum diversorum cantuum concordantia. [74:2-3]⁵²

The portion of the definition about mode and the "aequipollentis sui aequipollentiam" is omitted, since these concepts are explained more simply later on.

It is immediately apparent here, as it is throughout the treatise, that the author is considering both two-part and more than two-part music, since he then adds:

Et oportet, quod ad minus sint ibi duae voces concordantes ad invicem . . . [74:3-4]⁵³

Also, rather than simply naming the parts primus cantus and secundus cantus, Anonymous IV defines them, and in so doing adds an element concerning the compositional process to the theoretical concepts. The tenor part is not only the primus cantus, it is also the part that is composed first; the upper part is composed next and must concord with the tenor:

Cantus vel tenor est primus cantus primo procreatus vel factus. Discantus est secundo procreatus vel factus supra tenorem concordatus. [74:6-8]⁵⁴

It is interesting to note that the word discantus is used by

⁵¹Reckow, Der Musiktraktat . . . Vol. 2, pp. 19-22.

⁵²(Discantus is the concordance of certain diverse melodies.)

⁵³(And it is necessary that there be at least two voices there concordant with each other . . .)

⁵⁴(The cantus or tenor is the first melody [cantus], created or made first. The discantus is the second created or made, and made concordant above the tenor.)

Anonymous IV to refer not only to a stylistic species, but also to the upper part itself,⁵⁵ a usage not found in the previous two authors.

The somewhat epigrammatic comments of Garlandia and the Anonymous of St. Emmeram concerning the even- and odd-numbered notes:

. . . omne quod fit in <im>pari, debet concordari cum omni illo, quod fit in impari, si sit in primo vel secundo vel tertio modo . . .⁵⁶

and the colorem musicae, have been turned into a full and lucid explanation by Anonymous IV:

Primus punctus discantus debet concordare cum primo puncto tenoris, et hoc aut in diapason vel diapente vel diatesseron vel semiditono vel ditono vel unisono. Et quia in primo modo primus punctus est longus in discantu et simili modo est longus in tenore, quare coaequa<n>tur ad invicem. De brevi autem sequenti non est cura, quia indifferenter ponitur secundum quod melius competit, et est unius temporis contra unum tempus in tenore. Et tertius punctus longus aequalis contra tertium longum in concordantia, ut praedictum est, et quartus brevis contra quartum brevem. Et sic procede in primo modo, quantum placuerit. Unde regula: omnia puncta imparia primi modi sunt longa et cum tenore concordare debent; reliqua vero paria indifferenter ponuntur. [74:9-20]⁵⁷

⁵⁵This can be seen not only in this passage, but also later in the section, as well as in the next chapter:

. . . tam ex parte tenoris quam ex parte discantus.
[77:10-11]

(. . . both on the part of the tenor and on the part of the discantus.)

Discantus vel secundus cantus sic. . . . [77:15]

(The discantus or second part thus . . .)

⁵⁶(. . . everything that occurs in an <un>even position must concord with everything that occurs in an uneven position, whether it is in the first or second or third mode.)

⁵⁷(The first note of the discant must concord with the

This is clarity itself, and even if the additional information would have been understood by the readers of Garlandia's treatise, it is here spelled out in unequivocal fashion. From this we can extrapolate clearly about the other modes: the long notes in each part must be concordant with each other according to one of the concords (notice the same six concords as in the previous authors) and the short notes "indifferenter ponuntur."

When it comes to the list of items that must be borne in mind concerning discant, Anonymous IV is very much briefer than his model. It will be remembered that Garlandia gave two lists: one of factors controlling the construction of the individual parts ("sonus, ordinatio et modus"), the other of factors concerning the relationship between the parts (modus, numerus, and concordantia). Anonymous IV deals only with the latter problem, and rather than explaining each of his words he gives a synonym or an expansion of meaning:

Et notandum est, quod tria semper habere debetis in memoria: sonum vel proportionem, concordantiam et

first note of the tenor, either on an octave, or fifth, or fourth, or minor third, or major third, or unison. And because in the first mode the first note is long in the discant, similarly it is long in the tenor, and therefore they are made equal to each other. However, there is no concern about the following breve, because it is placed indiscriminately according to what seems best, and it is of one tempus against one tempus in the tenor. And the third long note is equal to the third long in the concord, as described before, and the fourth breve against the fourth breve. And proceed thus in the first mode for as long as you like. Whence the rule: all the odd-numbered notes of the first mode are long and must concord with the tenor; but the others, or even-numbered notes, are placed indiscriminately.)

tempus et quantum temporis. [74:21-22]⁵⁸

By sonus he shows that he means proportio. This word refers to all the different types of intervals.⁵⁹ The concordantiae have been listed a few lines earlier:

. . . primus punctus discantus debet concordare cum primo puncto tenoris, et hoc aut in diapason vel diapente vel diatesseron vel semiditono vel ditono vel unisono. [74:9-11]⁶⁰

And to the word tempus is added the meaning quantum temporis, in other words the amount and duration of notes that must correspond between the parts.

The central portion of the discussion of Anonymous IV on discantus is entirely new and owes nothing to Johannes de Garlandia, though Reckow has discovered some parallels in earlier treatises.⁶¹ This portion deals with the relative motion of

⁵⁸(And it should be noted that you must always keep three things in mind: sound or proportion, concordance, and tempus, and how much tempus.)

⁵⁹See 63:13-18:

Sequitur de concordantiis armonicis etc. In cantu ecclesiastico utuntur tredecim proportionibus. Quarum proportionum principium dicitur unisonus; duodecim sequentes denominantur sic: tonus, semitonium, ditonus, semiditonus, tritonus, quod non multum est in uso, diatesseron, diapente, tonus cum diapente, semitonium cum diapente, ditonus cum diapente, semiditonus cum diapente, diapason.

(Here follows a discussion of the harmonic concords etc. In ecclesiastical compositions they use thirteen proportions. Of these proportions the first is called the unison; the twelve others are named as follows: tone, semitone, major third, minor third, tritone, which is not used much, fourth, fifth, tone with a fifth, semitone with a fifth, major third with a fifth, minor third with a fifth, octave.)

⁶⁰(. . . The first note of the discant must concord with the first note of the tenor, either on an octave, or fifth, or fourth, or minor third, or major third, or unison.)

⁶¹See Reckow, Der Musiktraktat . . . Vol. 1, p. 75.

the parts. Anonymous IV distinguishes between three types of discant singers.⁶² The first type utilizes contrary motion:

. . . discantus debet opposito modo operari . . .
[75:6]⁶³

and they are known as veri discantatores. The second type uses parallel motion, and they are called plani discantatores:

. . . plani discantatores, si tenor ascendit, et ipsi ascendunt, si tenor descendit, et ipsi descendunt . . . [75:8-9]

The third group (no specific name) employs partly one system and partly the other.

The discussion centers on the veri discantatores and the different range of intervals they might use, before Anonymous IV gives, in laudatory didactic style, an example of the procedure, in this case from a French motet based on the In saeculum tenor.⁶⁵

The remainder of the chapter is concerned with the various possible combinations of modes between the parts, and is based closely on Garlandia.⁶⁶

Thus we can see that the emphasis of each of the three treatises under consideration here differs somewhat from that of the other two. Johannes de Garlandia discusses discantus

⁶²See 75:4-16, and Translation.

⁶³(. . . the discant must operate in the opposite fashion . . .)

⁶⁴(. . . plain discant singers, if the tenor ascends, then they ascend, and if the tenor descends, they also descend . . .)

⁶⁵See 76:5-6, Translation and footnote.

⁶⁶The use of the grammatical term obliquus is, however, new. See 76:14, and footnote to Translation.

only briefly as a style, and limits his discussion to two-part music. The Anonymous of St. Emmeram includes three- and four-part music in his comments on discantus, and is more specific about the allowable consonances between the parts. Anonymous IV also considers music of more than two parts and gives clear and detailed precepts concerning its construction. The debt of the two later theorists to Garlandia is large; but this fact, and the process of imitatio, which involves the lifting of certain passages and phrases wholesale from the model, do not prevent differences of approach and stress from being readily apparent. Until we know more about the audiences to which these treatises were addressed (and Reckow's hypothesis concerning the audience for Anonymous IV is a useful tentative beginning), an investigation of the reasons for and significance of these differences, quite apart from the historical positions of the authors, can remain only speculative.

THE MUSIC TREATISE OF
ANONYMOUS IV

A NEW TRANSLATION

PREFACE

The treatise of the thirteenth-century writer known today as Anonymous IV is central to an understanding of the music of Notre Dame. It contains detailed discussions of the rhythmic and contrapuntal theory of that monumental repertoire, comments about composers and their works, citations and analyses of specific pieces, and significant observations on the different musical genres and the manner of their performance.

It is now over twenty years since Luther Dittmer published an English translation of this treatise,¹ based upon the text transmitted by Coussemaker.² Coussemaker's editions, however, are notoriously unreliable, and the Anonymous IV text contains many errors - a situation only partially remedied by Dittmer's emendations. The translation itself has received mixed reviews.³

In 1967, an excellent critical edition of the treatise

¹Luther Dittmer, trans., Anonymous IV, Musical Theorists in Translation, vol. 1 (New York: Institute of Mediaeval Music, 1959).

²Charles Edmond Henri de Coussemaker, Scriptorum de musica medii aevi, vol. 1 (Paris: Durand, 1864), pp. 327-364.

³Gilbert Reaney, review, Journal of the American Musicological Society 12 (1959):226-233; Janet Knapp, review, Journal of Music Theory 3 (1959):306-310; Andrew Hughes, Medieval Music: The Sixth Liberal Art, revised ed. (Toronto: University of Toronto Press, 1980), p. 137, entry 988, annotation.

appeared,⁴ by Fritz Reckow, based on the three surviving manuscripts housed now in the British Library in London. This edition provides not only a stable and reliable text for study - variant readings are given in the apparatus criticus - but also parallel or comparable passages from other theorists.

The present translation is based directly on the Reckow edition and is designed to be used in conjunction with it. Each paragraph is numbered with a page and line reference (separated, for clarity, by a colon, rather than by a comma as in Reckow) so that the reader may closely compare Latin and English versions. Where variant readings have been adopted, these are indicated. In such cases the alternative reading has been based upon scrutiny of the manuscripts in the British Library, as well as careful consideration of overall context. Occasional changes in punctuation have not been drawn attention to, as these were invariably the result of a desire to facilitate the flow of the English, rather than to effect a substantive change in meaning.

It must be stressed that in the preparation of this translation, elegance of style has consistently taken second place to transparency of meaning. The aim has been to provide, for those who cannot fluently read the original, a usable, accurate, English version of this pivotal work.

As much as possible, the text has been allowed to speak

⁴Fritz Reckow, Der Musiktraktat des Anonymus 4, 2 vols., Beihefte zum Archiv für Musikwissenschaft, vols. 4-5 (Wiesbaden: Franz Steiner, 1967).

for itself. In cases where the meaning could be illuminated by the insertion of one or two words, these have been enclosed in square brackets []. Diamond-shaped brackets <> follow Reckow's edition, and are used to indicate additions to the Latin text.⁵ Parentheses occur either as normal punctuation, or, within quotations, to indicate insertions by Anonymous IV himself (non-italics in Reckow).

In order further to facilitate the ability of other scholars to use this translation and to evaluate its interpretations, some crucial terms have been given, in square brackets, exactly as they appear in the original text, directly after their English counterparts.

Some technical terms remain untranslated. In many cases, the meaning is self-evident, or explained by the immediate context. In others, where major problems of interpretation still exist, it seemed that retention of original terminology was preferable to unsatisfactory or anachronistic rendition. In two cases anachronistic terminology has deliberately been adopted: ditonus and semiditonus are translated as major third and minor third respectively. This seemed the clearest solution, and there appears to be little danger of misunderstanding in context.

⁵ Some additions of fractions of words or single letters have not been thus marked. These may be easily traced from the Latin text.

<CHAPTER ONE>

<Part One>

22:3 Having understood the formation of melodies according to the system of eight modes [tropoi]¹ and according to the use and custom of the Catholic faith, we must now consider the measuring of them according to length and shortness, as the antiqui² dealt with them, and as Master Leo³ and very many others arranged them more fully according to their ordines and colores.⁴ They proceeded thus: the mode [modus] or maneries,⁵

¹The melodic modes.

²This term is vague, perhaps deliberately so, and appears often in the course of the treatise. It is given greater focus, however, in 46:1-2:

Istae regulae utuntur in pluribus libris antiquorum,
et hoc a tempore et in suo tempore Perotini Magni. . . .

(These rules are used in very many books of the antiqui, from the time of Perotin the Great, and in his own time)

and in 50:25, where Anonymous IV uses the comparative antiquiores.

³For this, and the other names in the treatise, see Reckow, Der Musiktraktat . . . Vol. I, Personen-Register.

⁴This word is used in the treatise as a descriptive term of approval, and five times out of seven in conjunction with, or as an alternative for, the word pulcritudines. There is no parallel passage in which colores are mentioned as a factor in organization. The term is a rhetorical one; see my Chapter III, p. 112.

⁵Maneries occurs in the first chapter of Johannes de Garlandia's treatise as an alternative for the word modus. The ordinal numbers for the musical examples also imply the feminine noun.

or consideration of time, is the understanding of the length and shortness of melody and sound. There are six general modes. The first consists of long short, long short, long short, etc. The second consists of short long, short long, short long, etc. The third consists of a long and two shorts, a long and two shorts, etc. The fourth consists of two shorts and a long, two shorts and a long, etc. The fifth of long, long, long, etc. The sixth of short, short, short, etc.

22:15 If the first mode is combined with the others or with itself, then there are five combinations plus one. If the second is combined with the others and with itself, there are five more plus one. If the third is combined with the others and with itself, there are five more plus one. If the fourth is combined with the others and with itself, there are five more plus one. If the fifth is combined with the others and with itself, there are five more plus one. And if the sixth is combined with the others and with itself, there are five more plus one. And thus there are no more than thirty combinations of diverse modes, and six combinations of like with like; and there are therefore thirty-six altogether. And note that sometimes there are combinations using a rest, and sometimes not, as can be seen to be the case, and [sometimes] not to be the case.

22:25 Again there are also other modes, for example when the abovementioned modes break [frangunt] a breve or breves into two, three, or four, etc., for example on instruments. And we say the same about their longs, etc. Concerning these fractiones we have collected many types of modes, as will be seen more fully

later. There are also other modes, which are called unusual [inusitati] modes, almost like the irregular ones, although they are not the same, for example in parts of England and elsewhere, when they say long long short, long long short. And there are several like that, as will be demonstrated more fully below.

23:6 The single long contains two tempora, whether it occurs in first, second, or third position. The single breve is one which contains one tempus in the abovementioned position. The sound for one tempus can be called a sound that lasts not for a very short time, nor for a very long time, and that can be broken by quick motion into two or three or four parts at most by the human voice, although on instruments it can be done differently.

23:13 The ordo of a mode is the number of notes before a rest. And this ordo is taken from the arrangement of its beginning. The arrangement of the first beginning of some modes⁶ is the arrangement of the notes or sounds of the melodies, which are more fully joined without a rest under a fixed order of sounds connected to the figures of the tropoi. And this arrangement <occurs> from a certain fixed tropos such as one taken as a source, as in the antiphony or gradual, etc., according as the predecessors [of these melodies] are contained more fully in the books of Holy Mother the Church, and also elsewhere

⁶Aliorum modorum. "The other modes" would refer back to the alii modi of 22:25 and 23:3 - too specific for what is clearly a general definition. On the other hand, "some modes" is oddly limiting.

according to more widespread usage, as the composers used them more fully according to their different parts.

23:22 Some modes are perfect, others imperfect. A mode is called perfect when it ends with the same quantity with which it begins. A mode is called imperfect when it ends with a different quantity than the one with which it begins. And the number of the perfection and imperfection differs according to the type of the abovementioned six modes.

24:3 The first example is of the first mode of the abovementioned modes in the following form: take one fixed tropos, so that notes or sounds or melodies are more fully joined together, in the gradual, for example "Latus," which occurs in "Alleluia <Pascha nostrum> immolatus est Christus," and put the examples on the parchment. Then make another ordo of notes, unless that ordo is sufficient according to what belongs best in that mode. And if that mode is the first, its arrangement will be according to the teaching [ars] of the second chapter put later under that form, that is to say three notes in ligature with two, two, two, etc. without a rest. The teaching about the notes is of two kinds: one according to the sound and melodies, the other according to the written notes [puncta materialia],⁷ as they are written if we are qualified and do

⁷ Another example of the influence of Logical terminology. Aristotle had posited four causes pertaining to reality, each substance having a formal cause, relating to what it is; a material cause, relating to its passive power to be changed; an efficient cause, relating to its active power to change; and a final cause, relating to the end to be realized. These concepts were taken up by the Scholastic logicians. (See, for example, Petrus Hispanus, Summulae Logicales 5.24-5.27 [ed. Bochenski, pp. 50-52].)

it appropriately, as is demonstrated more fully in the second chapter.

24:15 The first ordo of the first perfect mode is of three notes with one breve rest and three notes with a breve rest and three notes with a breve rest, etc. The second ordo proceeds with five notes, five notes before a rest, but always in such a way that they are separated into three and two. The third ordo has seven, seven, seven, separated always into three, two, and two. The fourth ordo increases by two more. The fifth increases by two more over the fourth, and likewise for each ordo for as long as you like, always increasing by two. And so it follows from the foregoing, that all the ordines of the first perfect mode occur with an uneven number of notes before a rest, proceeding always by a long and a breve in the complete foot [pes],⁸ although it breaks the juncture [of the ligatures]. But understand that the aforementioned rest is a breve of one tempus, on account of the ordo or definition of the first perfect mode.

24:28 The ordines of the second perfect mode occur in the same way and with the same numbers. But with respect to quantities, they are formed in the opposite manner. The beginning of the second perfect mode proceeds thus: two, two, two, etc., and three at the end always without a rest. And the first ordo thus: breve long breve, with a long rest of two tempora, and this

⁸An important concept in Anonymous IV (see, for example, 25:33, 27:5, 33:21, etc.), and one that is not found in Johannes de Garlandia.

in the first ordo. But in the second ordo it is formed with five, five, five, separated into two and three. In the third ordo, with two, two, and three. In the fourth with two, two, two, and three, and increasing in this way by twos not from the end but from the beginning, in an opposite manner from the aforementioned first mode.

25:6 Again the ordines of the first imperfect mode proceed by an even number, that is to say with addition [adiunctione], as follows. But its beginning proceeds thus: by two, two, two, without three at the end and without a rest. And the first ordo proceeds in this way with a long breve, with a long rest of two tempora, with the addition of a breve and a long with a breve rest of one tempus; again the same in quantity: long breve, long rest, breve long, breve rest, etc., in exactly the same way. The second ordo of the first imperfect mode proceeds the same way. But in place of two put four, proceeding in this way: two, two, with a long rest and two, two, with a breve rest, and again and again, etc., for as long as you please, as has been said before. The third ordo proceeds by six, six, in such a way that there are two, two, two, with a long rest and two, two, two with a breve rest; again by six with a long rest and six with a breve rest, etc., for as long as you please.

25:20 The beginning of the second imperfect mode proceeds by two, two, two, etc. But there is a difference between this beginning and the beginning of the first imperfect mode mentioned above, which is that this one proceeds according to the

propriety and perfection of the written notes, and the first mode proceeds without propriety and with perfection, as will be made clear more fully in the second chapter. The first ordo proceeds with two and a breve rest, and two and a long rest, and again the same in the mode, and again, and again, etc., which is the opposite of the first imperfect mode. The second ordo of the same mode proceeds with four and a breve rest, and four and a long rest, etc., and so on, for as long as you please. The third ordo proceeds with six and a breve rest, and six and a long rest, and repeating in this way, etc. And understand more fully in this way about each of the other ordines of the same mode.

25:32 The beginning of the third perfect mode proceeds with one long, and three, three, three, etc., but without a rest. The pes is completed on the penultimate, and the pes of the first mode ends on a breve, and the pes of the second mode ends on a long, which indeed we should have mentioned above.⁹ But understand that the breve of the first, second, and sixth modes is always a breve of one tempus, and the long of those modes is a long of two tempora - but the long of this third perfect mode is a long of three tempora, and thus is worth a breve and a long of the second mode or a long and a breve of the first mode, and similarly, which is remarkable, with the addition of

⁹ It is comments such as this, as well as other slips and omissions, which have led commentators to the (now discredited) view of the treatise as "lecture-notes." (See, for the origin of this hypothesis, Harry Ellis Woolridge, The Oxford History of Music, vol. 1 [Oxford: The Clarendon Press, 1901], p. 154, and per contra Reckow, Der Musiktraktat . . . Vol. 2, pp. 15-22).

different voices. But the first breve of this third mode is a breve of one tempus, whereas the second breve is a breve of two tempora, because if there is a number¹⁰ of breves, the closer they approach to the end, the longer they must be drawn out, both in this third mode and in the fourth mode, according as the tempora are broken. The first ordo of the third perfect mode proceeds with four, separated into one and three, with a long rest of three tempora; again with four, separated the same way, with a long rest as mentioned above, etc., again the same and again, etc., as you please. The second ordo of the same mode with three added proceeds with seven, seven, seven, etc., always with a long rest of three tempora after any seven, with the seven separated into one, three, three, taking into account the ending of the pes, as mentioned before. The third ordo proceeds with three more than in the second ordo mentioned above and thus there will be ten, ten, ten, always with a long rest, etc., separated as mentioned above. And understand in this way about the other ordines of this same aforementioned mode.

26:20 The beginning of the fourth perfect mode proceeds with the first long of the third mode removed, with three, three, three, etc., and two with the propriety and imperfection of the written notes, as in the second chapter, etc. And thus we can understand that these two notes are not the same kind as the two notes of the first or second imperfect modes mentioned before, etc. The second ordo proceeds by three [added] to the front of the

¹⁰Multitudo means an indefinite number larger than one, not necessarily a very large number. See my Chapter II, p. 57.

aforementioned ordo, that is, by three, three, two with a long rest, as mentioned before; again the same, and again the same, etc., always with a long rest. The third ordo of the same mode proceeds by adding three more to the front of the last mentioned ordo, and thus there are eleven, separated into three, three, three, and two, with a long rest after the eleven. And thus it continues beyond the eleven, but retaining what has been said and what will be said later about the propriety and quality [conditio]¹¹ of the written notes. These things must be understood, as will be made clear more fully in the second chapter to follow.

27:3 The beginning of the third imperfect mode proceeds with one long, and three, three, three, etc., and two at the end with propriety and without written perfection and without a rest. But the pes always ends on the penultimate note of the three mentioned above, as we have said before elsewhere. The first ordo of the third imperfect mode derives from the first ordo of the third perfect mode by a diminution of one, and thus there will be only three notes or sounds with one long rest of three tempora. Then three other notes of another mode must be placed with a rest of three tempora if it occurs in place of two breves. But it can occur differently, if it occurs with a breve rest of one tempus, and then three other notes follow of yet another type of irregular mode: a breve of two tempora, and a long of three, and a breve of one tempus with a rest of

¹¹This is a ἀραξ λεγόμενον in the treatise.

(27:14) two tempora. And then it is repeated, so that there can be a circular progression through the mode from the beginning. Let us proceed therefore from the first part of this, which exists and is understood from the abovementioned ordo in the following form: one of the abovementioned parts proceeds with a long and two breves with a long rest of three tempora, two breves and a long with a breve rest of one tempus, a breve and a long in ligature, and a breve with a rest of two tempora; and again, again, again, etc. But the separation must be made so that the first three notes are separated into one and two joined together if they are on different pitches; but if they are on the same pitch, they are not actually joined together in the written notes, but are understood to be joined together. The other three notes in ligature are always either actually joined together in the written notes, or joined by understanding. The three final notes are separated into two, either joined actually or by understanding, and one; the same again, and the same again, etc. But the next part proceeds as mentioned before with a long, two breves either joined actually or by understanding, and a long rest of three tempora, and then three notes either joined actually or by understanding and a long rest of three tempora in place of two breves. The separation of any of these three is clear enough from the preceding discussion - the same again, and the same again. The second ordo of the third imperfect mode proceeds with a long and three notes joined together, with two with propriety and imperfection as mentioned before; then a long rest of three

tempora, then three joined together, and three joined together with a rest of one tempus, then two joined and three joined together with a rest of two tempora; repeat, repeat, repeat, (28:2) etc. This ordo at first increases by adding three between the one and the two; then it increases by adding three before, then by adding three after the two joined together, etc. by a circular motion; again, again, etc., according to the same pitch or a different one, or both. Or it proceeds as follows: one long, three joined together and two joined together as before, with a long rest of three tempora; then three joined together and three joined together with a long rest of three tempora, [equal to] two breves for the same three [tempora]; again as before, again, again, etc. The third ordo of the same mode proceeds with a long, three joined together, three joined together, two joined together with a long rest; then three, three, three, with a breve rest of one tempus, then two, three, three, one, with a breve rest of two tempora. Refer back to the method of increasing by first adding three after the long, then by adding three before, then by adding three after the two. Thus the method of increasing the mode is to be understood for all the others that follow, which can be suitably increased or augmented. But it must be understood that it is clearly seen as being by a diminution of one from the perfect mode, as mentioned above. Another way of forming the same: a long, three joined, three joined, two joined that are imperfect, with a long rest; then three, three, three, always joined with a long rest of three tempora [equal to] two breves of the same three [tempora];

again, again, again, etc. The difference between this ordo and the one just mentioned is that this has long rests and the other short. Again there is another difference, which is that the ordo is double in this one and triple in the other, etc.

28:24 The beginning of the fourth imperfect mode proceeds with three notes in ligature, and three, three, and one, on account of the diminution of one from its perfection. The first ordo of the fourth imperfect mode proceeds with three in ligature, and one, with a breve rest of two tempora, then a long, and three in ligature with a breve rest of one tempus, then two in ligature and two imperfect notes in ligature with a long rest of three tempora; again, again, again, etc. The same mode in a different way: three, and one, with a breve rest of two tempora, a long, three in ligature with a long rest of three tempora [equal to] two breves of the same three [tempora]; then a long, and three in ligature with a long rest, and a long, and three in ligature, etc.; and so on without the mode of the first four, and thus this mode is seen to be transformed into the third mode, etc. The second ordo of the same mode proceeds by adding three notes in the first ordo before the last note, then by adding three at the end, then by adding three notes between the two and the two with the same different kinds of rests mentioned above; again, again, again, etc. The same ordo can be made out of the first ordo with a breve rest, secondly with a long rest, and again the same without the first group, as mentioned before, and thus the mode is seen to be transformed as before. The third ordo adds three notes before the

last note in the first ordo and thus it has: three, three, three, one, with a breve rest of two tempora; then it adds three at the end, and thus it has: one, three, three, three; then it adds three before the two at the end, thus: two, three, three, two, with a long rest of three tempora; again, again, again with the same rests. Or: three, three, three, and one, with a breve rest of two tempora, then a long, three, three, three with a long rest of three tempora, then a long, three, three, three; and thus it proceeds further uniformly without the first ten notes, and is seen to be a transformed mode, as mentioned before.

29:15 The first ordo of the third imperfect mode, with a diminution of two from its perfection, proceeds thus: one and one with a breve rest of two tempora; again a long and a breve with a breve rest of two tempora, etc., for as long as you like; and thus there is a rest only on the last breve. Otherwise it proceeds with a rest on the first breve, thus: two in ligature with a breve rest of one tempus, and two in ligature with a breve rest of one tempus, etc., for as long as you like. But before the first note should be put a double rest of one long of three tempora and one breve of one tempus. Or a long rest of three tempora, a breve rest of one tempus with the first note left out, and the second and third in ligature with a breve rest of one tempus; again two with a breve rest of one tempus; again, again, again without the first rests. It must be noted, that if this last ordo of two notes is said [sung] with a subsequent one [reliquo] of two notes, then it will be

a good combination [copulatio], whether it is on the same pitch, or one of them is with another different voice that is appropriately chosen and arranged. The second ordo of the third imperfect mode with a diminution of two proceeds thus: a long, three notes in ligature and one with a breve rest of two tempora; again the same, again the same. And you can distinguish the augmenting of this second ordo from the augmenting of the first ordo of the third mode discussed above, because it is understood that it has three notes in ligature before the last note, over and above what the previously mentioned ordo has. And if you want to have one responding, as mentioned above, begin with two in ligature, and three, with a breve rest of one tempus, again two, three with a breve rest, etc., repeating in the same way, or differently. But note that the other one mentioned above does not begin with this, but with one breve before this; and so the other one will have a breve rest of two tempora. But note: it is better to have a long rest of three tempora of two breves that is double; and this has a double rest, one of three tempora, and the other of one tempus, or vice versa, because this will begin with one long of three tempora and one breve of one tempus. And thus there may be a good combination if they are well arranged, or if there were placed before the ordo of the one part a note outside the concordant ordo together with the entrance of the other one, as seems best; and this part occurs with a rest, as mentioned above. The third ordo of the third imperfect mode proceeds as follows: a long, three, three, one of one tempus, with a breve rest of two tempora;

then a long, three, three, and one with exactly the same rest; again, again, again, etc., but they must be separated as said above.

30:16 The first ordo of the fourth imperfect mode with a diminution of two from its perfection, proceeds thus: three notes in ligature with a breve rest of one tempus, two in ligature and one of one tempus with a breve rest of two tempora, one long, two in ligature with a long rest; again, again, etc. The separation of this one into ligatures is clear enough from what has been discussed before. The second ordo of the fourth imperfect mode, diminished by two, proceeds thus: three, three, with a breve rest of one tempus, two, three, one of one tempus, with a breve rest of two tempora, one long, three, two with imperfection and with a long rest of three tempora; again, again, etc. on the same pitches or on different ones. Augmentation of this ordo occurs by adding three over and above the first ordo of this mode, that is to say by adding three at the end of the first part of this ordo, and by adding three between the two and the one of the second part of the same ordo, and by adding three between the one and the two of the third part. The separation of this mode into ligatures is clear from its description, and we understand the same about all the modes mentioned above and below; again, again, etc. The third ordo of the fourth imperfect mode, diminished by two, proceeds thus: firstly three notes are added at the end over and above the aforementioned second ordo of the same mode, before the breve rest of one tempus; then three are added before

the last one, which occurs before the breve rest of two tempora, then thirdly three are added before the two imperfect notes, with a long rest of three tempora. So, naming the aforesaid, it will be as follows: three, three, three, with a breve rest of one tempus, then two, three, three, one, a breve rest of two tempora, then one long, three, three, two, with written propriety and imperfection with a long rest of three tempora; again, again, again, etc. The separation into ligatures is clear from the description. The same applies to the feed [pedibus], etc. And the foregoing can be understood in a different way if there is a long rest in place of two breves, where it may be more suitable, and thus there will be one diminution of a different kind from its circular progression, just as was described above in the third or fourth \langle mode \rangle .

31:9 The first ordo of the third imperfect mode, with a diminution of three, proceeds thus: one single long with a breve rest of one tempus, one breve of two tempora with a long rest of three tempora, one breve of one tempus with a breve rest of two tempora; again, again, again, with the same pitches or different ones. And that ordo is called the only ordo [solus ordo] because it has no second ordo like the abovementioned modes, except through some irregularity or addition of some previously mentioned mode.

31:16 The first ordo of the fourth imperfect mode, diminished by three from its perfection, proceeds thus: two with written propriety and imperfection with a long rest of three tempora; again, again, again, etc. The second ordo of the fourth imper-

fect mode diminished by three does not exist, except through breaking of a long, and so it does not have a second ordo, wherefore it is called the only ordo [solus ordo]. Again there is another solus ordo of the same mode with the greater difference of a diminution by four from its perfection, and it proceeds thus: a breve of one tempus, a breve rest of two tempora, a long of three tempora, a breve rest of one tempus, one breve of two tempora, a long rest of three tempora; again, again, again, as mentioned above. And these soli ordines can fit with their opposite modes, as was mentioned above, and as is explained more fully later.

31:28 The beginning of the fifth perfect mode proceeds thus: long, long, etc., without a rest, for as long as you like. The first ordo of the fifth <perfect> mode proceeds thus: long, long, long, with a rest of three tempora; again, again, again, for as long as you like, with the same pitches or different ones. But realize that each long contains three tempora, and thus each long is equivalent to a long and a breve in the first mode, or a breve and a long in the second mode, or to both, if they are properly and harmonically calculated [performed?],¹² which is difficult for those who know such things, unless they are used to them through long experience. Again there were certain antiqui, who in former times used to

¹² Deduco has an enormous variety of meanings. Among them, in mediæval Latin, is the sense of "derive" or "calculate," whereas in late Classical Latin there is the meaning "create" or "spin out," usually referring to a poem or literary composition.

draw out those three longs in ligature with a long rest, and therefore they used to put according to the written notation [materialem significationem]¹³ three notes in ligature instead of three longs, although that ligature is contrary to the ligature of three notes in the other modes mentioned before and later. But nobody can recognize this except through the harmonic considerations attributed to it above. And above there is long breve, long breve, and long breve before a rest according to the first mode, or breve long, breve long, and breve long before a rest according to the second mode. But according to the third mode there is a long with two breves and a long with two breves before a rest, and in the fourth two breves and a long in accordance with the ordines mentioned above. And that method [modus] of the three notes mentioned above is a method of notating in ligature in lower parts and in first parts or tenors, but with separate notes in all upper parts, from the time when men began to understand such things, for example in the time of Perotin the Great and from the time of his predecessors. And the further back in time before them, the less was there an understanding of such things, but then

¹³See footnote 7. The theory of signification was also central to Scholastic reasoning (see Petrus Hispanus, Summulae Logicales 6.01 [ed. Bocheński, p. 57]):

Significatio termini, prout hic sumitur, est rei per vocem repraesentatio secundum placitum.

(The signification of a term, as used here, is the representation of a thing by a word according to principle.)

and a sign [signum] was that which represented the thing being signified (see Petrus Hispanus, Summulae Logicales 6.03 [ed. Bocheński, p. 58] et passim).

only according to the relationship between the upper and the lower voices, according to the six harmonic concords. And that was enough measuring of time for them then, and it was not strange that they used only a few modes according to the differences of the abovementioned ordines, which will be discussed sufficiently in what follows. The second ordo of the fifth mode proceeds with three separate notes, and two, with a long rest put after them; again, again, again with the same pitch or a different one, etc. The third ordo of the fifth perfect mode proceeds with three, two, two, all separate notes, with a long rest of three tempora; again, again, again etc. These things that have been mentioned about the fifth mode can be seen in many places in different volumes of organum, and especially in "Laqueus contritus est," as someone¹⁴ put for an example of the abovementioned fifth mode. And the same author put "Regnat" as an example of the third and fourth modes, and "Latus" as an example of the first and second modes, as in the treatise which begins "Habito de ipsa plana musica, quae immensurabilis (respective) dicitur," and better, as can be clearly seen in the examples of the same treatise, etc.

33:11 The beginning of the sixth perfect mode is demonstrated like the fifth by "Laqueus" and proceeds with four joined together, three joined together, three joined together, etc., for as long as you like, without a rest. But the pes always ends on the penultimate note of each ligature, etc.

¹⁴The "someone" is of course Johannes de Garlandia. The examples cited are all from the first chapter of his treatise.

33:15 The first ordo of the sixth perfect mode and all the other ordines proceed in two ways, with the last note before the rest being either long, or not long. And firstly, if it is long, it proceeds thus: four in ligature, of which the last is a long of two tempora, and therefore the four are three breves and one long, on account of the silence of a tempus, with its concord or melody, with a breve rest of one tempus following; again four ending with a long, and a breve rest; again, again, etc. And understand the pedes: three breves in one pes and then one long of two tempora together with a breve rest in the next pes; again three in a pes, and a long with a breve rest in a pes. And thus, of the single notes, understand four with a rest, whether it is reduced to the first mode or to the second, and understand the same number of notes in this mode as in the third mode mentioned above, although this mode is different from that one. The difference is in the appearance of the written notes, because in this mode four notes are understood to be joined together before the rest, and in the other mode one and three notes are understood to be joined together before the rest, etc. The second ordo of the sixth perfect mode proceeds with four joined together, and three joined together, the last note long with a breve rest of one tempus; again, again, again. But the pedes end within three notes, and a long and a breve for a pes, as occurs more fully in the first ordo mentioned above. The third ordo of the sixth perfect mode proceeds with four in ligature, three in ligature, three in ligature with a breve rest; again, again.

And these different ordines increase always by three, one over and above the other, after the first four, just as occurs in the third ordo mentioned above, and the pedes are contained within three, three, three, ending on the penultimate note of each three, and the <last> pes <consists of> a long, and a breve rest. Or we can understand these three ordines mentioned above in the following form: four in ligature, the last one a breve with a long rest of two tempora. <In> the second ordo four in ligature, three in ligature, the last note a breve with a long rest of two tempora, etc. The third ordo, four in ligature, three in ligature, <three in ligature,> with a long rest of two tempora. And always understand that the pedes end on the penultimate note of each ligature. And there is one breve with its long rest of two tempora for <the last> pes, etc. And these modes are perfect just like the others, but within a reduction they are reduced to opposite modes, that is to say to the first or second, in such a way that these last examples of the sixth mode are reduced to the second mode, and the first examples of the sixth to the first mode; and that is sufficient for a first understanding.

34:20 The first ordo of the fifth imperfect mode, diminished by one, proceeds with two separate longs, with a long rest of three tempora; again, again, again, etc. But understand that a whole pes is understood in each long of the fifth perfect or imperfect mode, just as when it is reduced to a pes of the first or second mode, etc. The second ordo of the fifth imperfect mode proceeds with two separate notes, and two separate notes

and one long rest of three tempora; again, again, again, with the same pitches or different ones, as we understand for all the repetitions discussed above and below. And understand the pes in the same way as the first of the fifth imperfect mode, etc. The third ordo of the fifth imperfect mode proceeds with two, two, <two,> always separated, with one long rest following; again, again, etc., as mentioned before.

34:31 The first ordo of the sixth imperfect mode proceeds with a diminution of one from its perfection (just as is more fully laid out in the first ordo of the sixth perfect mode), thus:¹⁵ three breves in ligature with a long rest of two tempora, three breves separately, thus: one breve, two breves in ligature with one breve rest of one tempus, one long of two tempora with one breve, and one breve with a breve rest; repeat, repeat, repeat. But the pedes are of three tempora: a long rest with a breve following is a pes; then two notes in ligature, imperfect according to their notation, with a breve rest, make a pes; one long with a breve rest, etc. The second ordo of the sixth imperfect mode proceeds thus: four in ligature and two that are imperfect according to their notation, with one long rest of two tempora, a breve, four in ligature, the last note long according to its notation or actually, one breve rest adding one breve, and then another breve. And thus it continues according to number, until you have a circular process, understanding

¹⁵ An alternative reading of the ensuing passage is given in Reckow, Der Musiktraktat . . . Vol. 1, p. 91, footnote 10. The translation adheres to the main text.

three for a pes, and three for a pes, with a long rest of
 <two> tempora and a breve for a pes, and then four in ligature,
 if they are appropriate, of which there are three for a pes,
 then the last of these four with one breve and a breve rest
 (35:15) for a pes. But if you understand that the seventh is long,
 then to that rest is joined a breve and another breve to form
 a pes, which indeed is difficult to perform, since one pes is
 contained within another; but it does happen in many songs
 [cantilenis], and people do not know how to distinguish it in
 many places. Nonetheless it is not usual with an added breath
 [suspirium], which seems to be a rest and is not, without re-
 spect to what follows; repeat, repeat, repeat, etc. The third
ordo of the sixth imperfect mode proceeds with four, three,
 two in ligature that are imperfect, with a long rest of two
tempora, and proceed in this way from those nine, just as you
 have done from the six mentioned above in the same way, until
 you have enough of a circle, and then repeat, repeat, repeat.
 And note that we can proceed more easily from these three
ordines mentioned above in the following form, that is to say
 from the first ordo or in the first ordo, understanding the
 fourth long, calculating the notes and rests, leaving nothing
 out of those things, just as was mentioned above, since a pes
 is contained within a pes. And with something added in the
 middle they can be performed well, but the continuation is
 difficult for one who does not know how to do it, etc. Repeat-
 ing in this way with the second ordo <in such a way> that the
 seventh <is long>, whether it is a rest or a note, thus also

in the third ordo let it happen in such a way that the tenth is long, whether it is a rest or a note; and let it proceed in this way, until the circle is completed, and then repeat, repeat, and do not be surprised at such an ordo of notes or at such a containment [of one pes within the other], since sometimes a separation of the ordo of the pedes is found, and thus a separation becomes a joining by means of such a contain-

(36:7) ment, and sometimes the reverse. Here is more about the same things in a different way, so that we may understand more easily: four breves in ligature within the [same] number of notes, with a breve rest, then three, of which two are in ligature, one by itself, with a breve rest, and three joined in the same way, of which one is by itself, with a breve rest. And understand it thus in threes using all breves, but understand always three for a pes, three for a pes, reducing to the first mode or second. But do not be concerned whether the breve rest occurs in the beginning, or in the middle, or at the end, and thus by yourselves you can number the previously mentioned ordines by a diminution of one, if you like, and even with a diminution of two and three, in the same way as the number is understood according to the method of the third mode mentioned above. But if these ordines can be brought back to the number of the fourth mode, then they will be in the diminution of four. And what has been said so far will suffice about the sixth mode, with certain other things which will be found in the second chapter below, since without a discussion of the written notation they cannot be completely understood. All

things have been calculated that can be calculated, concerning number, pes, notes, joining together and separation, sufficiently and as is appropriate. And sometimes there is an arrangement of the notes in a certain number, and sometimes not, and sometimes an ordo is better, and sometimes no ordo is better, as it takes the place of the ordo.

36:26 The first ordo which is called the only ordo [solus ordo] of the fifth imperfect mode, with a diminution of two, proceeds with a long, and a long rest of three tempora; again, again, etc.

36:29 The solus ordo of the sixth imperfect mode, just as it can be considered under the heading of the <third> mode, with a diminution of three, <proceeds> in two ways according to whether the rest comes before or comes after. Again the solus ordo of the same mode can proceed in two ways according as the rest occurs in different places in the pes or otherwise according to the notation, that is, having respect to the notation, as will be made clear more fully in the second chapter. And note that the different numbers of the ordo of the notes is sometimes of many kinds [multiplex] and sometimes not, and sometimes <proceeds> through a single method of arrangement, and sometimes not, but through different methods. And all these things will be made clear in the second chapter mentioned above.

<Part Two>

37:1 Here follows the second part of the first chapter. The first part was about the six modes of time of melodies, accord-

ing as sounds or melodies occur in full and can or could be used, with certain other things, as well as the ordines, as discussed above. The second part <is> about the diminution or breaking up [fractione] of these modes, whether by means of breaking apart or putting together [the parts of] each breve or long.

37:7 The first mode consists of long breve long, etc., for example in its beginning, without a rest, by separating three, and two, and two, etc. But it must be understood that this is also separated in another way in accordance with the mode: two in place of the long, and a breve; two in place of the long, and a breve, etc., which is clear enough from the sixth mode discussed above.

37:13 This can be described in another way, thus: three in place of a long, and a breve; three in place of a long, and a breve, etc., without a rest. But the written notes are separated as follows: first put one written long; then join two currentes, which break the abovementioned long. Then that long and the currentes are worth one long. And if they are all descending, they are appropriate; if they are all ascending, they are similarly appropriate, but not used a great deal; if they are ascending and descending, or descending and ascending, which is very rarely found, it can be satisfactory, but they do not constitute beautiful written notation. But at the moment we are not concerned with this beauty, but we are concerned with their significance, as the things mentioned above signify. Then put a breve and a long in two written notes in

(37:24) this way and break the last long into two currentes, as mentioned above. Again put two notes in ligature and break the last one into two currentes, etc. And thus we perceive or place a breve, and three notes in place of a long, etc., for example from the beginning of the first perfect mode, in the breaking up or bringing together of three notes for a long, as is written above in "Tamquam."¹⁶ And if you want to put five written notes in ligature, you would have three in place of a long, and the penultimate in place of a breve, and the last note long. And you could break this long with two currentes, as mentioned above, putting two notes in ligature afterwards with currentes, etc., and it will be the same, as is written above. The first ordo of this mode proceeds with one whole long before the rest in this form: five written notes in ligature, the end with perfection and a breve rest, five with a breve rest, five with a breve rest, etc., in the same way, thus there are three in place of the long (and the penultimate is a breve and the last long) with a breve rest, etc. Otherwise the first ordo of the same mode can be without a complete long, thus: five notes joined or in ligature, and of these the last long is broken into two currentes, with one breve rest. Again elsewhere: five with two currentes with a breve rest, etc.; and thus are understood three in place of a long, and a breve; three in place of a long, and a breve rest, etc. And we could also deduce in this same way about the following ordines from

¹⁶As Reckow points out, "Tamquam" has not been mentioned before.

those with one complete long and without a complete long, increasing by two notes in ligature, which denote a breve and a long, or a breve and a long in such a way that the long is broken into two currentes.¹⁷

38:11 Or here is another way in the same mode as to the breaking up and putting together of the breve and long, that is three in place of the long, two in place of the breve, etc. The beginning proceeds thus: a written long with two currentes and three joined together, two in place of the breve, the last long with two currentes, three with two currentes in similar fashion, etc., and thus we put together three in place of a long, two in place of a breve, etc. The first ordo of this mode with one whole long occurs thus: a written long with two currentes breaking it, three in ligature with opposite propriety, the two first ones in place of a breve, the last one long with a breve rest; again, again, etc. Again the same without a whole [long] thus: a written long with two currentes, three in ligature as above, two in place of the breve, the last long with two currentes and a breve rest; again, again, etc.

38:22 Again in the same mode three in place of the long and three in place of the breve like the beginning: a written long with two currentes, four joined in ligature with opposite propriety and with perfection, of which three are in place of a breve, the last one long with two currentes added, four again

¹⁷It does seem that two real alternatives are proposed here, although Reckow thinks otherwise (see Der Musiktraktat . . . Vol. 1, p. 91, footnote 15). The insertion of a comma before vel would make this clearer.

with two currentes, as was mentioned above, etc. Thus we put together three in place of a long, three in place of a breve; three in place of a long, three in place of a breve, etc. The first ordo of the same mode with a complete long: three in place of a long as before, three in place of a breve and a long joined together in four notes, with a breve rest; again, again, etc. Make the second ordo and the third, etc., increasing by two currentes and four joined together with a breve rest, etc., for as long as you like.

38:32 Again for the same first perfect mode, four in place of a long, and a breve, in the form of the beginning, thus: six joined together in ligature, the penultimate a breve, the last a long, the preceding four in place of a long, and this with propriety and perfection; the last is broken into three currentes; with these, two joined notes with three currentes, two joined with three currentes with propriety and perfection, etc. Thus we put together four in place of a long, and a breve; four in place of a long, and a breve, etc. The make the first ordo, the second, and the third, with a complete long or a broken long.

39:1 Again make the beginning of the same mode thus: four written notes in ligature with propriety and without perfection, three joined together with opposite propriety and perfection with three currentes added, three joined together with three currentes in a similar fashion, etc. And thus we put together four in place of a long, two in place of a breve, etc., for as long as you like. Then make the ordines with a whole long or a broken long, always with a breve rest.

39:8 In a similar way, if you want to have five notes in place of a long before the aforementioned three notes in ligature: put five imperfect notes; if six, put six imperfect notes, etc., always at the beginning of the beginning or of the ordo and not elsewhere; and the last of the three is broken into added currentes, for as many as you like, for as many as the first long is broken into, if you like. Thus we also say: in place of the three put four of the same type, that is to say of opposite propriety, and thus you will have three in place of the breve, and the last long is broken into currentes, as mentioned before. And because of custom [consuetudinem], we rarely break further, that is to say we do not put four notes in place of a breve for the human voice; but for instruments it is more often appropriate, and done in this way, with respect to the first mode, amongst clever [players], whether it is in the perfect mode or the imperfect, reducing them to complete breves or a long rest, whichever is more appropriate. This is sufficient for the present, with certain other things that will be added later to what has been said so far.

39:21 It should be noted that for the second perfect or imperfect mode we understand the same as for the first, in accordance with this example: in place of the beginning make two notes in ligature with written propriety and perfection with two currentes, again two with two currentes and proceed uniformly in this way. And we put it together thus: which is a breve, and three for the long; a breve, and three for the long, etc. Then make the first ordo, the second, and the third,

etc., in the same way as we did for the first mode, because it is varied with the same number of variations as the first, as was mentioned before. But there is the following difference, that the first note is always a breve, and then follows a long, and this by its description is the opposite of the first mode, which is long, breve. But as for the breaking into currentes there is no difference, either for the long or for the breve, etc.

39:31 For the third mode, proceed thus: the first long is of three tempora which are equipollent to breve long, or long breve. The first breve that follows is of one tempus, but the other breve is of two tempora, and therefore those two breves are equipollent to the first long. And if that mode is reduced to the second mode, it is divided or broken in accordance with the order of breaking of that mode, but if it is reduced to the first mode, it is broken in accordance with the order of the first mode. From the foregoing we gather that the breve of one tempus of this mode can be broken into three or four, and the second breve into six or eight, and the first long into nine or twelve, whether it is used or not. Therefore break it according to the capability of the human voice and according to what is most appropriate, in accordance with the similarity of the aforementioned second or first mode, and in accordance with the written notes, as will be more fully demonstrated in the second chapter below.

40:6 We also understand the same about the fourth mode which is its opposite, but contains <the same> longs and shorts.

And we also say the same about the mode which is not its opposite, which is long long breve, etc.

40:9 Break the fifth mode according to the same method of the abovementioned modes, and that is sufficient.

40:10 Break the sixth mode according to the method of the first or second, etc., as in explained more fully in the second chapter.

40:12 Beyond this, if there is anything less fully explained in the foregoing, it will be sufficiently discussed in the six chapters that follow, with a triple perfection that is full, perfect, and ultimate, according to what is said: "Every perceptive knowledge of propriety hands down a full, perfect, and ultimate perfection of the understanding of truth."¹⁸

¹⁸For comparable, though not exactly parallel, passages, see Reckow, Der Musiktraktat . . . Vol. 1, p. 40, footnote j-j.

〈CHAPTER TWO〉

40:18 Now we proceed to the second chapter, as follows. The written notes, as they are notated in books, and as they signify the melody and tempora of the things mentioned above, occur in two ways: either by themselves and alone, without words added, or with words added. By themselves and alone, they are understood in two ways: firstly, as single notes without any joining of one to another; secondly, as being joined together. Some single notes occur as they are used in the ecclesiastical tropoi, and some, as they are used in the books of organum, according to the different volumes, and also as they are used in different kinds of music books, and as they are used on any and all kinds of instruments, etc., as will be made clear later. The abovementioned notes [puncta] are called notae by some, so that one note [punctus] is called a nota; some call them figurae, so that a note can be called a figura; and some call them single pitches [soni], and thus is [a note] understood by a written sign in place of a formal one, etc.¹⁹

41:3 There are three types [modus] of single figures [figurae], as they are used in the tropoi. One is upright with a small line [tractus] on the right side [from the point of view] of the performer; another is upright without this line; the third

¹⁹See footnote 7.

type is when it stands like the elmuahym.²⁰ There is also a figure which is called a plica, upright with one line or two, and this occurs either ascending or descending, etc. Good notators depict these notes in the following way in their notation: some make square notes with one line or without, as mentioned above; some make them not square, but in the shape of a quadrangle or quadrangles, in such a way that its length upright is longer than its length sideways or drawn out, whether it has a line or not. The elmuahim is often drawn obliquely; and some draw it [?] similar to the elmuahim.²¹ Also there is a certain elmuarifa, which can be called irregular, which has a line descending on the left side, as the English write it or notate it, which sounds the same, etc.

41:17 According to them the notes [puncta] or notae are joined two together, or three, or four at most, according to the ecclesiastical books of tropoi, etc.

41:19 Thus two are joined together as follows: a quadrangle above a quadrangle, lying upright, are called two in ligature ascending, if they are joined with one line on their right side; but the upper one must appear a little smaller. And

²⁰ See Jacques Chailley, "Elmuahim et Elmuarifa," in Essays in Musicology: A Birthday Offering for Willi Apel, ed. Hans Tischler (Bloomington: School of Music, Indiana University, 1968). Anonymous IV actually relates elmuahim to currentes. See 43:14, and cf. 45:1-7.

²¹ This sentence is difficult to construe. Manuscripts A and C have ipsum, and Manuscript C has similem. Reckow gives ipsum simile, making the expression neuter, as he does at 45:1. The case of the second elmuahim, which Anonymous IV makes indeclinable, is presumably dative.

note that because of its propriety no note that is ascending, whatever sounds or melody it signifies, must have a line below and on the left side. But two notes in ligature that are descending are thus understood in a different way: the first note has a line descending on the left side because of its propriety, and another line on the right side, with which is joined, not under the other one, one upright note, whether it is square or quadrangular. And note that those two notes in ligature mentioned above, as they are ascending, and as the last one lies above the other one, show their perfection; and for this reason they should be called two perfect notes in ligature. And \langle because \rangle the first one does not have a line, as mentioned above, they are called with propriety and perfect or with perfection. But as regards the other two, which are \langle de \rangle scending, and the last one stands on the other side of the falling or joining line, and does not lie below the first one, it denotes its perfection in this way. And because the first has its line descending on the left side because of its propriety, so it can be said that those two are with propriety and perfect or with perfection.

42:7 Three notes in ligature, all ascending, are notated thus: make a quadrangle and another quadrangle joining the angle to the angle, or the corner to the corner, and going up sideways, and again joining the next quadrangle to the second one and putting it upright above it, as was described more fully above in the two notes in ligature. And thus they can be called with propriety and perfection according to the same criterion

mentioned above, as was explained more fully in the two notes (42:12) mentioned above. We can understand the same thing in another way: make the two notes in ligature named above, and join one quadrangle to them in such a way that the upper corner on the right side joins with the <upper> quadrangle on its lower corner on the left side. And then there will be three notes similar to the upper three mentioned above. And also for three notes all descending: make two notes in ligature descending, as described above, and join a quadrangle to them with the last note, in the same way that the second is joined to the first. But we cannot join them on the upper part without deleting the line, which we usually cannot do or do not do. Also three notes in ligature can be made in another way, thus: make two notes like the two first notes of the three ascending, as described above, and join a quadrangle to them in such a way that the upper left corner joins with the corner of the second note below and on the right. But this joining can be direct or indirect: direct without a line, or indirect with a line, etc. Thus they can be ascending and descending, and they are called with propriety and perfection, as mentioned above. Also three notes in ligature, both descending and ascending, can occur in two ways, thus: ~~make a line descending, and draw from the line~~ a long or short note similar to the elmuahim; and then above the last one put a quadrangle upright, and join the right <part> of one with the right part of the other with one line; and it will be like an oblong. Another way for the same thing: make two notes in ligature descending and put above the second one

a quadrangle and join them, as described above, and it will be with propriety and perfection. Whence the rule: for every figure descending in the beginning, if the first note has a line on the left side, it is called with propriety; and if it is ascending, and the first note does not have a line in that way, it is called with propriety. The perfection of the figure is recognized from the end: if it ascends at the end and the last note is upright above the penultimate, it shows its perfection; but if it is descending, it is this way: when the last note stands upright and is joined [to the penultimate], if it is put by its corners not directly underneath, but sideways, it shows its perfection.

43:9 Understand in a similar way about four notes in ligature as far as the propriety of their beginning and the perfection of their end is concerned, arranging the intervening notes as mentioned above. And this suffices regarding the ecclesiastical tropoi except for certain currentes as follows: make a quadrangle with one line on the right side, and join in an oblique fashion a little distance away two or three or four elmuahim. And they are called currentes according to some, as will be made more clear later. But in certain other books they use five, six, or seven notes in ligature with certain other opposite signs, etc.

43:17 According to the composers of organum some of the figures are called single and some are called in ligature. Of the single figures some are called longs and some breves. There are many <ways> of writing longs, namely a longa simplex, which

denotes two tempora, as in the first, second, or sixth mode, if it is one of the modes discussed above. And that quadrangle is upright or square with one line descending from the <right> side. And there is another longa simplex that denotes three tempora, as in the third, fourth, and fifth modes discussed in the first chapter above. And that is the same [shape] as the one above. Again there is another long, which denotes two tempora or three, as mentioned above, which is called an ascending or descending plica according to what some people say. And that one, if it is ascending, has a line ascending, or two lines ascending, one on the right and one on the left; but the line on the right, if it is longer, shows that it is a long, and a greater or lesser long according to which mode it is, as mentioned above. Again there is also another long, which is called a duplex longa, which denotes a double long of six tempora, or five at least. And that is one which seems to be drawn too long, as though there were two or three longs together, in one quadrangle with one line descending on the right. Again there is a certain single long standing before currentes, which is divided into as many parts as there are currentes following it. There are certain other longs, and they denote a greater or lesser length and number of tempora, and these are found more fully in the books of organum purum.

44:19 There are many forms of written breves. There is one which is an upright quadrangle without a line. And it is called a written recta brevis, because it signifies a correct [rectam] breve of one tempus, as is discussed more fully in

the first, second, and sixth modes above. And there is also another breve, called a breve of two tempora, because it denotes two tempora, such as the second breve of the third and fourth modes above. And it is written in the same way as the other breve. Again there is also another breve, and it is a quadrangle like the one above but with two lines [tractus] ascending or descending. But the line on the right <side> is shorter than the line on the left. And it can be of one tempus or two, as mentioned above.

45:1 Again there is a certain figure which is called elmuahim or something like it. And it always lies in a certain oblique manner, but denotes different things. Sometimes it is called a semibreve, whether it is before another one that is exactly the same, or after. At other times it is the third part of a breve, when three of them are placed in the manner of currentes. And thus there are three of them in place of a breve. And it is exactly the same if four currentes are arranged in place of one breve, but this rarely happens. Further divisions do not occur in the human voice, but can be deployed on stringed instruments. But note that a certain line is sometimes found at the beginning of such notes on the left side to make a distinction from the preceding notes. And note that the preceding figures can be understood by labor and repose in different ways according to the different modes; and also used in different ways, etc.

45:13 Of the ligatures [figurarum ligatarum] some are said to be with proper propriety as to their beginning, some without

propriety, some with opposite propriety, etc., as is found more fully explained in a certain book or treatise, which begins "Habito de ipsa plana musica,"²² etc. And it should be noted that some figures occur without words [sine litera] and some with words [cum litera]. Figures without words are joined together as much as they can be or could be; figures with words are sometimes joined together, and sometimes not. And they denote the length or shortness of the notes, as they occur in the aforementioned modes, etc., as will be made clear more fully below. Single figures have been discussed above. For the present we must consider or understand ligatures in this way, and firstly those which have both propriety and perfection, as it is written: "Every ligature with propriety and perfection (should be understood as follows): (its) penultimate note (is) a breve, (but) the last note is a long; any note or notes that precede these, if there are any, are considered (or may be considered) to be in the place of a long." (Again) "Every figure without propriety and perfection (occurs in) opposite (fashion: the penultimate note is long, but the last note is short)."

46:1 These rules are used in very many books of the antiqui, from the time of Perotin the Great, and in his own time, but they did not know how to explain them or certain other things mentioned below, and similarly from the time of Leo for his part, since then they used to put two notes in ligature for

²² See footnote 14, and 33:8-9. Quotations from Johannes de Garlandia and other theorists are all traced and cited by Reckow.

a breve and a long, and in a similar fashion three notes in ligature in very many places for long breve long, etc. And note that Master Leonin, according to what was said, was the best composer of organa, who made the great book of organum from the gradual and antiphony to elaborate the divine service. And it was in use up to the time of Perotin the Great, who edited²³ it and made very many better clausulae or puncta, since he was the best composer of discant, and better than Leonin. But this is not to be said about the subtlety of the organum, etc.

46:12 But Master Perotin himself made excellent quadrupla, like "Viderunt" and "Sederunt," with an abundance of colors of the harmonic art; and also several very noble tripla like "Alleluia Posui Adiutorium," "Nativitas," etc. He also composed three-part conductus like "Salvatoris hodie" and two-part conductus like "Dum sigillum summi patris" and even monophonic conductus (simplices conductus) with several others like "Beata

²³The Latin is abbreviavit. Hitherto this has always been translated as "shortened," thus causing a certain amount of confusion as to how Perotin's clausulae, some of which are extremely long, could have shortened the Magnus Liber. Edward Roesner has suggested "made a redaction" ("The Problem of Chronology. . .," p. 378), and indeed one of the meanings of abbreviare in the Middle Ages was "to make an edition." Also found is the meaning "to write down." Both of these senses can be supported by Anonymous IV's comments at 50:14-15:

Sed abbreviatio erat facta per signa materialia a tempore Perotini Magni. . . .

(But an edition [?] was made by means of written notation from the time of Perotin the Great. . . .)

There are the two appearances of the word brevius in the same sentence, but these do not necessarily undermine the suggested interpretation. More problematic is 48:26-27, where "shortened" is much the most likely meaning.

viscera," etc.

46:18 The book or books of Master Perotin were in use up to the time of Master Robertus de Sabilone, and in the choir of the Parisian cathedral church of the Blessed Virgin, and from his time up to today.

46:21 This was done in a similar fashion, etc., just as Petrus the best notator and Iohannes called the First, along with certain others, for the most part used to notate, up to the time of Master Franco the first, and the other Master Franco of Cologne, who for their part began to notate differently in their books. And for this reason they handed down other rules of their own, appropriate to their books.

46:27 Again there were some who noticed that the abovementioned rules were not enough, and they put the sign of opposite propriety, as is mentioned above. And they said that "in every (figure) with opposite propriety and perfection, the last note is long and the preceding notes are in the place of a breve." Whence it follows that there are at least three notes in ligature in fact or in theory, with this opposite propriety. And therefore if two have this opposite propriety, they are equipollent to the first two of a ligature of three of the same abovementioned propriety. And therefore if one long follows, that long and the first two are equipollent to three of the same propriety, as is mentioned above. And similarly with four or five or six, etc., notes in ligature which are equipollent.

47:5 Again there is what is called an imperfect figure, which is written or notated in a different way from that mentioned

above. And it has no rule, except that it is reduced to the abovementioned perfection. And this reduction sometimes happens when notes are placed on the same pitch, since every ligature is said to be ascending or descending as mentioned above. But those which are on the same pitch are not ascending or descending. Therefore a written ligature is not made out of them, but they are properly joined according to their equipollence through a reduction of longs and breves by understanding alone. And therefore two such notes in ligature with one separate long put afterwards are equipollent to three, as was mentioned above, that is to say two notes in place of a breve, and one in place of a long, just as out of three notes, two are in the place of a breve and the last is long. In similar fashion, out of four in the same species, three are in place of a breve, and the last is long, etc. All this is one whole, if an imperfect figure is put with opposite propriety. If it is imperfect and with proper propriety as mentioned before, then it ends at the first long following or at its equipollent, according to the arrangement of the longs and breves of its mode. And then judge it as if it had propriety and perfection, as mentioned above. And if it is without propriety and perfection, then it ends at the first breve following, according to the common rule. And then judge as mentioned above. And note that there is a difference between the method of performing four, and the method of performing more than four, since four are according to this method, as mentioned above: the penultimate is long, the last is short, and the preceding notes are in the place of a

breve. Some people used to understand it in a different way, with one broken long in place of the penultimate, which is easier, it seems; thus they used to say that the last is a breve and the first is a breve, and the two notes in the middle are in place of the penultimate long. And thus they are equipollent in a different way to three, whether they are reduced to a perfection or not. And this was said on account of there being very many notes, which cannot be joined together in their notation but only by understanding. And it should be noted that every ligature of more than three notes is reduced or should be reduced to three notes of the same species, that is to say that every ligature of more than three notes with propriety and perfection is reduced to three notes in ligature with propriety and perfection as regards their length and shortness. And understand in similar fashion about those that are without propriety and <with> perfection: they are reduced to three notes in ligature without propriety and with perfection. And the same is true about those that are with opposite propriety and perfection: they are reduced to three notes in ligature with opposite propriety and perfection. From the foregoing the abovementioned difference with other differences, etc., will easily be seen, if there are any. And if there is anything missing in the above discussion, it will be made clear more fully in what follows.

48:15 There will be no ambiguity about figures with a text [cum litera] or over a text, where they occur as single notes, if they are well written or notated, as composers of organum elab-

orating the divine office in their volumes fully perceive, and most lovingly accept together with their own procedures [usibus], according to the different parts of the world ruled by divine power, and as they are considered according to Holy Scripture, where it says: "Praise (the Lord) with the timbrel and choir,"²⁴ etc., together with what follows.

48:22 Note that there is a difference between performing with text and without text, since without text there is a joining of the notes according to two or three or four, etc., notes joined together; as much as possible according to what is most appropriate, etc., as is explained below. Notes with a text are sometimes joined, and sometimes not. But they are more often separate than joined. Whence the rule: every single figure, as it shows itself under its name, is either lengthened or shortened. It is separated on account of the syllables put underneath, since above any syllable sometimes is placed a single note, <which> belongs with it. And by reason of the diversity of the syllables, according to some people, any note is said to be distinct, because it is not reduced to a ligature. But if it is reduced, one note by itself is not reduced, but one note can be reduced with another or some others, for example one correct breve above one syllable and one correct long above

²⁴Psalm 150 reads as follows in the King James version:

Praise Him with the timbrel and dance

and even the New English Bible gives:

praise him with tambourines and dancing.

In Classical Latin, chorus (from the Greek χορός) meant primarily "dance" or "group of dancers." But Anonymous IV is probably thinking of the later ecclesiastical meaning, chorus, "a choir," established since the late tenth century. Cf. 46:19.

another syllable joined to it are equipollent to two notes in ligature with propriety and perfection according to the above-mentioned rule, where it says: "Every figure with propriety and perfection," etc. Another rule: if above one syllable there is a long, above another syllable following there is a breve, and above the third syllable a long, they are equipollent to three notes in ligature with perfection and propriety. Another way: one long above <one> syllable, two notes in ligature with propriety and perfection above another syllable, if it is a breve and long that follow, then they are equipollent to three notes in ligature with propriety and perfection. But if those two are with propriety and without perfection, then the abovementioned long is not joined to them, but the two are joined with the breve and long following. And thus they are equipollent to four notes in ligature with propriety and perfection. If there are three notes in ligature above one syllable with propriety and perfection, if a breve and a long follow or occur by themselves, then their quantity is clear, since they are equipollent to a long and a breve and a long, according to the first rule, where it says: "Every figure with propriety," etc. But if the three notes in ligature mentioned above are without perfection, then they are completed by the breve and long following, and thus they are equipollent to five notes in ligature with propriety and perfection. But the five can be reduced to four, and the four to three. Therefore from the first to the last they are equipollent to three notes in ligature with propriety and perfection. In another way: if there

are two notes in ligature above one syllable without propriety and with perfection, which indeed is not used much, and one long above the second syllable, they are equipollent to three notes in ligature with propriety and perfection. Also if \langle there are \rangle two notes in ligature without propriety and perfection above one syllable, and the same again above the second syllable, and one long above the \langle third \rangle syllable, they are equipollent to three notes in ligature with propriety and perfection and to two notes in ligature with propriety and perfection. Thus if anyone is wise, he could find the rest of what is necessary by himself, etc., according to the above rules; as is made clear more fully below. Thus we can deduce from the foregoing that all notes in ligature beyond three, and two notes in ligature with one, or one with two, can be reduced to three notes in ligature.

49:31 Those things which are called with propriety and without perfection were at first confused as to their name. But they were understood by means of equivocation - which indeed is not the case now - since in the old books they had notes which were too equivocal, because the single written notes were equal. But they were performed by understanding alone, saying: I understand that note to be long, I understand that note to be short. And they used to labor for a very long time before they would know anything well, which is now easily perceived by all those who work with such things, with the help of what has been discussed so far, in such a way that anyone would accomplish more in one hour than formerly they could in seven, as far as

proceeding any distance is concerned. The greatest part of the understanding of the antiqui was in the aforementioned things without the written notation, because they themselves had knowledge of the concords of the complete melody, such as the octave, fifth, and fourth, as is more fully contained in the fourth and fifth chapters of this treatise, when they considered the relationship of the upper part to the lower melody, and taught others, saying: you may listen to us and remember, and sing it in this way. But they had little notation, and used to say: this upper note concords in this way with the lower note; and that was enough for them. And saying this they used to learn some things in a long time.

50:14 But an edition²⁵ was made by means of written notation from the time of Perotin the Great and a little before, and they used to teach more briefly, and hitherto more briefly <from the time> of Master Robert de Sabilone, although he used to teach extensively. But he rendered the melody extremely delightfully in his singing. And for this reason the Parisian was very praiseworthy, just as Master Petrus Trothun Aurelianus was in the plainsong. But he knew little or nothing about the concept of the tempora, as was said. But the abovementioned Master Robert knew those things very well and taught them faithfully. After him Master Petrus was the best notator as appears from his own testimony, and he notated his own books very faithfully according to the use and custom of his master, and even

²⁵See footnote 23.

better. And at that time there was someone, who was called Thomas de Sancto Iuliano, a Parisian of olden times [antiquus]. But he did not notate according to their way but he was good according to the older generation [antiquiores]. But there was another man, a certain Englishman, and he had the English method of notating and even partly of teaching. After them and in his time was the Iohannes mentioned above and he continued the methods of all the people mentioned above up to the time of Master Franco with certain other masters like Master Theobaldus the Frenchman and Master Symon from Sacalia, with a certain master from Burgundy and also a certain honorable man from Picardy, whose name was Master Iohannes Le Fauconer. There were good singers in England and they sang very delightfully, like Master Iohannes Filius Dei, or Makeblite in Winchester and Blakesmit in the court of the last king, Lord H<enry>.²⁶ There was a certain other good singer in many kinds of song and organum with certain others whom we shall mention elsewhere, etc.

51:1 Again two notes in ligature with propriety and imperfection above one syllable with one long following are reduced to three notes in ligature with propriety and perfection, or with a breve and long following are reduced in similar fashion to three, etc. Again three notes in ligature with propriety and imperfection with the next long following are reduced to three with propriety and perfection. We also understand the same

²⁶ Henry III, died 1272.

about four, five, or six, etc., with propriety and imperfection: with the first long following above the second syllable they are reduced to three notes in ligature.

51:9 But in the books of certain of the antiqui they did not have notation with these meanings. But they proceeded by understanding alone, always with propriety and perfection of the performer in those books, for example in the books of the Spanish and the Pampilonenses and in the books of the English, but in different ways, [with the lengths] either shorter or longer, etc. But the French [and] the Parisian had all the modes mentioned above, as can be seen more fully in different books by different notators, and we now proceed to an understanding of those modes.

51:16 The first formal mode of the first chapter is properly notated in written notes, thus: three notes in ligature with propriety and perfection, then two in ligature with propriety and perfection, and then in similar fashion, two, two, two, etc., for as long as you like. And this occurs at the beginning of this mode. Again the first ordo of the same mode proceeds thus: three notes in ligature with propriety and perfection, two in ligature with a breve rest, etc.²⁷ The second ordo increases by two notes more in ligature with propriety and perfection over and above the first ordo. The third grows

²⁷ It will be noted that the numbering system for the ordines of the first mode differs here from that given in 24:15-27. Here the first ordo comprises five notes rather than three, and subsequent ordines are correspondingly larger. Anonymous IV reverts to his original system with the next mode.

in similar fashion by two more than the second. The fourth in similar fashion by two more than the third, etc., for as long as you like. Whence the rule: for as many groups of two notes in ligature that there are always with propriety and perfection beyond the first group of three, that will be the number of the name of the ordo, by adding [the number] one to it. If it is necessary to calculate by the increasing group of two notes in ligature, it will not be in this way by adding [the number] one, which is not used. But [the system of calculating] with the ligature of three and adding one is in use among such people, who use such things.

51:30 The beginning of the second <mode> is notated thus: two, two, two, etc., with propriety and perfection, and three at the end without propriety and with perfection. The first ordo of this mode is notated thus: three in ligature without propriety and with perfection with one long rest of two tempora, etc., for as long as you like. The second ordo of the same mode: two in ligature with propriety and perfection and three without propriety and with perfection with one long rest of two tempora, etc. The third ordo increases by two notes in ligature over the second ordo, at the beginning and not at the end [ante et non post]. But in the first ordo mentioned above it increases at the end and not at the beginning, after the three and after the two, etc. Thus the fourth ordo increases by two notes in ligature over the third ordo and at the beginning. And with these rules you can verify examples of this written notation; and these examples are notated in the begin-

ning, as in "Latus" above, etc., just as we have understood about the perfect modes.

52:10 The beginning of the first imperfect <mode> can be notated in two ways. One way is like the beginning of the perfect mode, which is three, two, two, two, etc., with propriety and perfection. But at the end is added one breve, which makes an imperfection. But certain others say that it is better in another way, thus: two in ligature, and two, two, two without propriety and with perfection. And thus there will be nothing left alone at the end, since there is a certain rule among such people: we must not separate anything that can be joined. And there is also a certain other rule which is the opposite, which says that you must not notate anything without propriety which you can <notate> with propriety, and we must not make anything without perfection, which can be made with perfection. The solution is: let that be done which is most appropriate. The first ordo of the first imperfect mode proceeds thus: two without propriety and <with> perfection with a long rest of two tempora following, two in ligature with propriety and perfection and one breve rest of one tempus; and that is a certain noble ordo, but little used; repeat, etc., for as long as you like. The second ordo of the same mode increases by two similar notes in ligature with the first group of notes, and two similar ones with the second. And the rests remain, one a long, and the other a breve. The third ordo increases by two similar notes with the first group and two similar ones with the others, over and above the previous second ordo. The fourth increases

similarly over and above the third by two similar notes and two similar notes, as discussed above. The beginning of this mode can be notated differently, thus: three in ligature with propriety and perfection, and three without propriety and perfection, etc. But this ordo according to some people is not as appropriate as the preceding. And therefore it is not used, except in some appropriate song, as will be made clear more fully below. And these examples can be seen in the aforementioned "Latus."

53:11 The beginning of the second imperfect mode proceeds from its written notation thus: two in ligature, two, two, etc., always with propriety and perfection. The same mode differently: three notes in ligature without propriety and with perfection and three with propriety and perfection, etc. But it is not used, as was said before about exactly the same first mode which is its opposite. The first ordo of this mode proceeds thus: two notes in ligature with propriety and written perfection, but theoretical [intellectuali] imperfection, with a breve rest following of one tempus ending the abovementioned <imperfection>; and then two with propriety and written imperfect <imperfection>g <rest> following, or with two notes <without> propriety and <with> written and not theoretical perfection. And that theoretical imperfection ends with one long rest following, etc. Make all the ordines of this imperfect mode in exactly the same way, as is described above in the first imperfect mode. But the propriety and perfection of this mode will

be in an opposite fashion, and it will also be opposite in the order of the ligatures.

53:26 And according to this last rule, with the help of the records, the greatest part of the doubtfulness of the old books is resolved, either with words or without, if a disturbance occurs to the unison of the melody, etc. And for this reason it is not necessary among those who know such things to have the propriety and perfection, etc., always absolutely precisely, but as is most appropriate and brief, etc., as will be made clear more fully below.

54:1 The written beginning of the third perfect mode is notated as follows: one long, three notes in ligature with propriety and perfection, three, three, three in ligature, etc. The first ordo of the same mode in writing is perfect, thus: one long, three notes in ligature with one long rest of three tempora, etc. The second ordo of this mode is greater <by three over and above the first ordo>. The third is greater by three over and above the second. The fourth is greater by three over and above the third, and always with propriety and perfection, and with one long rest following, etc. Therefore it follows that of the three notes in ligature after the long, the first two are breves. But in a certain irregular mode, in the way that the English sing, they say of this mode: two <longs> and one breve, etc.²⁸ And sometimes it is appropriate; and sometimes not, etc.

²⁸Cf. 23:2-5, and see Reckow's footnote.

54:12 The beginning of the fourth perfect mode proceeds thus: three, three, three with propriety and perfection, and at the end two imperfect notes with the aim of a perfection of one long in the rest, although the rest is not calculable, which indeed is clear with the first long of the third mode removed according to the unchangeable ordo, and one removed at the end, etc. The first ordo of the fourth perfect mode proceeds thus: three with propriety and perfection, two with propriety and imperfection with one long rest following, etc. The second ordo of the same mode is increased by three notes with propriety and perfection, and then afterwards two with propriety and imperfection, and a long rest following, etc. The third is increased in a similar fashion by three. The fourth in a similar fashion is increased by three, etc.

54:22 The beginning of the third imperfect <mode> is notated thus: one long, three, three, three, etc., with propriety and perfection, and at the end two with propriety and imperfection, etc. The first ordo of the third imperfect mode proceeds with a diminution of one from its perfection, thus: remove the last note in a group of three, of whichever mode it is; keep the remainder and you will find one long <and two> with propriety and imperfection, whether it is written or theoretical, or both, with one long rest following. In the same way as just now we derived the first ordo of the third imperfect mode from the first ordo of the third perfect mode, so we can understand the second imperfect mode from the second perfect mode, and the third imperfect from the third perfect, and so on. Again

the first ordo of the third imperfect mode, diminished by two from its perfection, or diminished by one from the first ordo of the imperfect mode mentioned above, is notated thus: one long, and a breve with a breve rest of two tempora, etc. But note, in the other imperfect versions mentioned above, it does not proceed so briefly. But for the continuation of the mode, as was said above, after the long and two breves with one long rest, are put three with propriety and perfection and with a long rest following, equipollent to two breves. And thus you may understand about all the other imperfect versions of the same mentioned above. Each of the other [ordines] of the same mode are clear enough by themselves together with a consideration of the same mode in its theoretical form, as is discussed more fully in the first chapter.

55:18 The beginning of the fifth perfect \langle mode \rangle proceeds by longs without ligating and without rests, with an uneven number, etc. The first ordo of this same mode is notated in two ways in the books of the antiqui and the moderns. One way is with three longs not joined, with one long rest, etc., and so on, with three, proceeding in an uneven number, etc. The other ordo is three in ligature with propriety and perfection and with one long rest of three tempora. And in this way three, three, etc., although they are not properly supposed to be put this way according to what has been said before. But this usage occurs sometimes in the tenors of discants or motets because of the beauty of notating according to a certain rule: what we can join, should not be separated. But in the other ordines of the same mode the notes are not joined,

but always separated and in an uneven number, as is the arrangement of the second ordo with five longs separated and a long rest, etc. Similarly in the third ordo with seven longs separately and a long rest, etc.

55:31 The beginning of the sixth \langle mode \rangle proceeds in two ways, as follows: if it is reduced to the first mode, it proceeds in one way; if to the second, in another. If to the second, then thus: two notes in ligature with propriety and perfection with one line [tractu] at the end ascending or descending, and two again with a line and two with a line, etc., without a rest, and one breve at the end on account of its perfection, since otherwise it would be the beginning of the same mode imperfect, that is, just like an imperfect mode. But when reduced to the first mode, thus: four in ligature with propriety and perfection and with one line ascending or descending, two notes in ligature with propriety and perfection with one line, and two in ligature with a line, two, two, two, etc., without a rest. But because that line sometimes greatly deceives all singers, because they sometimes do not know how much it ascends or descends, unless they are the very best singers of organum [organistae], for this reason some have put four notes in ligature at the beginning without a line and then three in ligature, three, three, always with propriety and perfection. And with that notation they understood the sixth mode. And this can be clearly seen in "Alleluia Posui Adiutorium" in the place after the first long rest, and some would say: after the first clausula of notes, which others

call properly speaking, according to instrumental players, a punctum, and they would say then: this is made clear more fully after the first punctum, or: as can be seen in the second punctum of the same "Alleluia," etc. With this in mind, then, proceed thus to its ordines. The first ordo as follows: four notes in ligature with propriety and perfection with one breve rest, etc. We can understand this in two ways: either the last note will stand for a long, or for a breve. If for a long, then it is equipollent to two breves, and if this is so, then the three first notes are put for a long and a breve, and the long with a breve rest for three breves, and the same for the second pes, etc., continuing. This method of notation increases and decreases through its diminution just like the third mentioned above, but here the first note is joined and there the first note is separate, etc. Or it can have four notes in ligature without propriety and with perfection with a long rest of two tempora, if it is reduced to the second mode, or two notes in ligature with propriety and perfection with one line and one breve, which is worse, although sometimes it is better or equally good, for example when they are on the same pitch, etc.

57:5 That is enough for the present in the second chapter for the intelligent reader, with certain things discussed below, as has been mentioned before.

<CHAPTER THREE>

57:8 Here follows the third <chapter> which deals with the rests of the tempora of sounds, and in this fashion: a rest is silence or the ending of sound for the requisite quantity of the tempus or tempora of a long or a breve of any mode of the six modes mentioned above. There are many different modes of rests. There is one which is called single; other rests are double or triple or multiple, etc. The single mode of a rest is when there is a rest for the length of time of one long or breve of any one of the modes mentioned above. Its tempus is decided according to the arrangement of longs and breves of the mode in ligature immediately before it, whether it is first mode or second mode, etc. If it is the first perfect mode that is in ligature immediately before it, then it will be a single rest of a breve of one tempus. And by a continuation of the aforementioned separated mode after the rest, whether the mode is perfect or imperfect, it can be said that this mode is the same after the rest as before it. And a rest like that is called perfect in itself. Whence the rule: every rest of the first mode or of the second, etc., if it has the mode the same after it as before, is called perfect or should be called perfect. But this mode just discussed is of that kind, therefore it is perfect. In exactly the same way we say: if the rest is a long of two tempora of the first or

second [mode], then the last note before it will be short, and also the first after it, by continuing the separate elements, etc. And this is the case if the first imperfect mode is before the rest, and the second perfect mode or <first> imperfect mode is after it, etc. For example, take the first ordo of the first mode, as it appears in "Latus" and according to all its perfect ordines; similarly there are many examples in the second mode which is opposite to it, in the same "Latus," that is to say in the second mode, whether it is perfect or imperfect. And it will mostly be a breve rest, when in the first mode there is a breve before it, on account of its continuation, since every regular rest continues the mode that precedes and follows it, as best it can, etc. And note that a rest can be named in two ways: one is called separate [distincta] from the abovementioned modes, and thus is detached from them; the other is called connected [unita], which is not detached from the modes, and thus continues the mode before it and after it. And thus the rest is in the mode itself, and is not separate, except in so far as it is silent; and this is the case whether it is long or short in the first perfect mode or the first imperfect, in the second perfect or imperfect, in the sixth, either in itself or as it is reduced to the first or second, in the third, as is most appropriate, whether it is of one tempus or two tempora or three, and in the fourth in a similar way, and in the fifth of three tempora or otherwise, if it is the broken fifth mode, whether it is by itself or resolved into the modes discussed above.

58:18 A double rest is when a single rest, whether it is long or short, is doubled or tripled or quadrupled, etc., and properly

(58:21) it should be called a multiple rest, and it is made fully clear according to the separation of the number of notes of any of the abovementioned modes. Thus in one mode it is recognized by the equipollence of the upper voice to the lower voice by theoretical understanding, and in another mode it is recognized well according to the written notation of the tractus, as can be seen more fully in the books of the antiqui and even of the moderns. Thus the first example occurs in the same way both according to theory and the written notation, as can be seen in "Omnes" in the first ordo of the first perfect mode, thus: long breve long sounding, breve long breve keeping silent, and then long breve long sounding, etc., keeping silent and sounding. Whence the rule: whether the mode is perfect before [the rest] or imperfect, if it begins after the rest in the same way as it ended before it, the rest will be perfect; but if there is a difference between the mode before [the rest] and the mode after it, then it will be $\langle im \rangle$ perfect and contrary to them in its placing of the longs and breves. Some people say, if there is a perfect mode before [the rest] and the same mode after it as before, the rest will be a perfect double or multiple rest. But if there is a difference between the modes before and after [the rest] in such a way that it is the first mode before and the second after, the rest will be imperfect and will be in the category of even-numbered notes, and the abovementioned perfect rest will be in the category of odd-numbered notes or tempora according to their equipollence. And the reason is that every perfect mode ends with the same quantity with which it begins. But breve long, breve long, etc., ends with a different quantity than the one

with which it begins and is in the category of even notes with respect to the upper or lower voice. Therefore it will be imperfect, etc. These multiple rests are clear enough in the first and second perfect and imperfect modes and in the sixth mode in itself; but in the third and fourth and fifth modes, [they have] whatever is most appropriate for them according to the number of one double and triple quantity, whether they are by themselves or reduced to the aforesaid modes; but the fifth mode is clear enough in itself as regards perfection and imperfection and as regards double or multiple rests according to the number of even or uneven notes, as mentioned above. But if it is broken, it must be reduced to the first or second or sixth mode, etc. And thus you can understand universally, generally and specifically about the others, according to their ordines individually, etc., and in great detail, as will be made clear more fully in the written examples below.

59:24 An example of the first single rest can be seen in "Latus," where the rest is short; or elsewhere, where it is a long of two tempora, as can be seen in "Latus" of the abovementioned perfect second mode. A rest of three tempora can be seen elsewhere as in "Regnat" in the third perfect mode. Note that according to the written notation a rest is called a tractus between two soundings of the same ordo, or of a different ordo or different ordines, as is most appropriate. Such a rest is of many kinds. One is according to the length from one ruled line to another, or it has the length of the space between two lines, as the notators of the composition rule it.

60:5 Some notators used always to rule four lines of the same color in ecclesiastical compositions between two sets of writing or between two lines of writing or above one line of writing; but the antiqui only used to use three lines of different colors; some used two lines of different colors and some one line of one color. But they had lines ruled from some hard metal, as in the books of the Carthusians and in many other places. But these kinds of books amongst composers of organum in France, Spain, and Ragonia and in parts of Pampilonia and England and in many other places do not use this, according to what can be clearly seen in their books. But they use red lines ruled in one color or black lines made from ink. But in the beginning they put one sign like a c or f or g and in parts they properly put a d. But certain antiqui used to put one note in place of a sign in different ways, but this is something that we do not use now. But at the end of a line of four lines they used to put one [note] as in plainsong, so that they could recognize the first note of the next line of four lines.

60:20 A single rest or written tractus occurs according to the distance of the breadth of one space, and is for one tempus only. But if there is a long tractus according to the distance from one line to a third line, or of two spaces, then it will be for two tempora; if it stretches from one line to a fourth line or has the same length as that, it will be for three tempora.

60:26 But note that composers or organum use five ruled lines

in their books, but only four in the tenors of discants, because the tenor is always customarily taken from an ecclesiastical composition notated with four ruled lines, etc. There are certain others in different volumes, <who> always make five [lines], whether they proceed according to the method of discant or not, as can be seen in single, double, triple, and quadruple conducti,²⁹ if there are any. But in organum purum and the greater tripla they always used to put four [lines] in the tenor, unless it was out of ignorance on the part of the man who ruled the lines, but always five lines in the upper parts.

61:1 We say further: if there is a tractus that is long enough to cover all the spaces, such a tractus is said to be the end of the clausula or punctum. Also note that sometimes there is a breaking of a breve, which is signified by one tractus of a length of half a space or approximately that, which may not have the length of a whole space, as a tractus of one tempus occupies. And by the same tractus they used to signify the third part of a breve equivocally. But it would have been better to put a minor [semibreve], etc. The example of a semibreve rest is clear to those who know how to reduce or change one mode into another, like those who say [they can make] the second mode out of the fifth and reduce the upper voice or voices to the same second mode, as certain Parisians have done and still do out of "In saeculum," the French hocket, which a

²⁹The word conductus appears to be indiscriminately second or fourth declension.

certain Spaniard composed, etc. And this aforementioned rest is called a semi-rest. And there is also another rest, which seems to be a rest but is not, and it is called suspirium. But it has no time in itself, but takes its time by diminishing the note immediately before it. And this sometimes occurs, when singers sing, whether there is a tractus there in the books or not. [A suspirium] with a tractus can be seen in the great triplum "Posui adiutorium" in the first clausula or punctum and in several other places, etc. And this tractus must be very small and drawn obliquely according to the last note before it in the upper part, since there is a certain other tractus, which is placed in books in the lower part; sometimes it is maior, sometimes minor, and it denotes no time, but is placed there on account of the division of the syllables, since it has one syllable on one side, and one on the other, whether they are from the same word or from different words, if they ought to be joined together in singing. The clever reader ought to commit all these things cleverly to memory, etc., with certain other double, etc., rests, as is made clear more fully below.

61:28 There were certain men who used to notate and put letters in place of notes, thus: <FFF> accdcaccedcc, which can be seen in the old books above "Viderunt omnes." The moderns however do not put letters, except one at the beginning of the lines, but they put notes almost round or square with a tractus or without a tractus sometimes. And very many used to notate the octave, fifth and fourth by rule according to the ascent

and descent [of the melody] and they had a certain regular <ascent and descent?> according to the eight modes of the tropoi or toni, as can be seen more fully in the ecclesiastical books, and they had another certain regular <ascent and descent?> according to their rule, as is more fully arranged in those same toni mentioned above, with certain other things, etc.

62:10 A double rest is when a single short or long rest is doubled or tripled, etc. And the first ordo of this can be seen in the "Omnes" put <above>, for example. And know that the ordines of the rests are taken up according to the ordines discussed above, etc., but with small differences, as can be seen more fully below. For the double rest mentioned above we do not understand it to be a breve or long as being doubled, but in the same way as in the ordo of any mode the numbers of the notes are understood or occur, etc. Note that nevertheless some count the space [intervallum] of a double rest or the white between two tractus, and thus two tractus make three in number, and three tractus make five in number, etc., according to the order of longs and breves of any mode, as can be seen in "Omnes" in the first ordo of the first mode, etc., but the tractus are equal. And in such a first mode if the melody is long breve long, its rest will be breve long breve etc., and thus the tractus will be all breves, and the spaces will be longs. Understand similarly about the second ordo of the same mode with a double rest and a triple, etc. But if it is breve long breve in the second mode, then the double rest will be long breve long. And thus the tractus will be a long and the

(62:28) space a breve with a triple rest, etc. Whence the rule: in these perfect modes if there is the same mode after as before, the rest will be perfect, and then the spaces are counted. This is universally one space in the first mode and the second and in the fifth of the second kind, if there is a perfect mode before and a perfect mode after, etc. Again if long breve must be performed with a double rest long breve, thus it is imperfect both sounding and being silent, and again long breve sounding with two tractus long breve, etc. In such [places] the space is not computed but the tractus, although it brings back the same mode as before. Again if long breve is performed in the sound with three tractus or two, they are equal, which is not usual, because it has a different mode after the rest than before. And thus the tractus are long breve long in the silence, then follows breve long with three tractus, breve long breve, opposite to the previous ones. And understand the whole thing in opposite fashion, if it is in the second mode, saying breve long. And all these things can be seen above in the notated "Omnes" mentioned above. Thus we also understand in this way about the third and fourth perfect and imperfect modes, and thus also about the fifth and sixth in this way, as can be seen above in "Torium" and "Aptatur" notated above.

<CHAPTER FOUR>

<Part One>

63:13 Here follows a discussion of the harmonic concords, etc. In ecclesiastical compositions they use thirteen proportions. Of these proportions the first is called the unison; the twelve others are named as follows: tone, semitone, major third, minor third, tritone, which is not used much, fourth, fifth, tone with a fifth, semitone with a fifth, major third with a fifth, minor third with a fifth, octave. Those made up with an octave as follows: tone with an octave, semitone with an octave, etc., up to a double octave. And further as follows: tone with a double octave, semitone with a double octave, etc., up to a fifth with a double octave and further, as is used on organs, and up to a triple octave, etc. There are certain others of the antiqui who name those same proportions as one proportion increases over another, as can be seen in a certain musical antiphon, but they used to leave out four of them in the same antiphon, saying: "There are three times three modes, from which all compositions [cantilena] are made up, that is to say the unison, semitone, tone, minor third, major third, fourth, (they left out the tritone), fifth, semitone with a fifth (not used), tone with a fifth, minor third with a fifth (not used), major third with a fifth (not used), "octave," as

can be seen in this antiphon which is notated. But someone else put four unusual proportions in this antiphon, etc.

64:3 The descriptions and definitions of these proportions [proportionum] can thus be understood with the help of proportioned number, in the following way: "Unity is the division of anything by itself," according to Jordan of Saxony.³⁰ Number is the putting together of unities in turn. Some numbers are even, some uneven. Some numbers are absolute, some relative. Some numbers are perfect, some diminished, some superfluous. Some relative numbers proceed in order according to the three kinds of ratio [medietatem], others not. Ratio is of three kinds. One is called arithmetic, like one, two, three, four, five, six, seven, eight, nine, and the differences between them are equal, etc., as is more fully discussed in the <second> book of the arithmetic art of Boethius: "In dandis accipiendis," etc. And there is another, which is called the geometric ratio, like one, two, four, eight, sixteen, thirty-two, and of the differences between these it is said: the relationship of one term to another is the same as the relationship of one difference to another, etc., as is discussed more fully in Euclid's Geometria which begins: "A point is something which has no parts." And there is another ratio, which is called harmonic, which partly agrees with the arithmetic and partly with the geometric, as is discussed more fully

³⁰Thirteenth-century German mathematician and second general of the Dominican order. See Reckow, Der Musiktraktat . . . Vol. 1, Personen-Register.

in the Musica of Boethius, which begins "Omnium quidem perceptio," etc. Again the relative proportions are considered in another way. Some are called equal, like one to one, two to two, three to three, etc., which among musicians are called equality, and as regards the sound are called a unison, whether it is on strings, or on organ pipes or on the high-sounding cymbals, etc. And there are others which are called unequal, and these are called inequality and are distinguished by five types of inequality, which are called multiplex, superparticulare, superpartiens, multiplex superparticulare, multiplex superpartiens.

65:15 Multiplex is when a larger number contains a smaller number several times exactly. And these species are called double, triple, quadruple, etc. Double is when the larger number contains the smaller twice; triple, when it contains the smaller three times; quadruple, when it contains it four times, etc.: double is for example like two to one, or four to two, and it is called an octave; and twice double, which is quadruple, is called a double octave, etc.; similarly with the triple octave, as occurs on organ pipes, etc.

66:5 Superparticulare is the larger number containing the whole of the smaller and some exact part of it, etc., and its species are called sexquialtera or sexquialtera, sexquitertia, sexquiquarta, etc., sexquioctava, etc. Sexquialtera is when the larger number contains the smaller and a half of it, and it is called emiolius; sexquitertia contains the whole and a third, and is called epitritus; sexquiquarta contains the whole

and a fourth; sexquioctava the whole and an eighth, and is (66:11) called epogdus. Also the sexquialtera proportion is called a fifth and vice versa, the sexquitertia is called a fourth, the sexquioctava a tone. Putting what we have said before together with certain other things, in this way the lesser and greater semitone can be arrived at. The octave consists of a fifth and a fourth, just as four, three, two: four to two is double proportion, therefore an octave; three to two is sexquialtera proportion, therefore a fifth; four to three is sexquitertia, which is a fourth. Therefore the octave consists of a fifth and a fourth. And from these three things every concord of the musical or harmonic art is basically derived. But according to some people the fourth is called the first concord, as is written in the ecclesiastical writers: "the fourth is the first, the fifth second, the octave third."³¹ And this is one [way], if anyone takes the same proportions by increasing them, and thus the fourth is called the first simphonia, the fifth the second, the octave the third. But by diminishing the proportions, the octave is called the first, and is the greatest melody and the mother of all concords after its beginning, which is called the unison, as mentioned above, since every inequality proceeds from equality and must be reduced to it, as will be made clear more fully below. The fifth is called the second and is the next melody after the octave. The fourth is the third, etc. The difference between the octave and the

³¹See Reckow's citations for this quotation.

fifth, which is called an interval [intervallum], is the fourth. The difference or interval between the octave and the fourth is the fifth. The difference between the fifth and the fourth is a tone. Therefore the tone and the fourth make up a fifth.

67:13 Superpartiens is the larger number containing the smaller and many parts; and its species are superbipartiens, supertripartiens, superquadripartiens, etc. Superbipartiens is the larger containing the smaller and two parts of it; supertripartiens is the larger containing the whole and three parts; superquadripartiens the whole and four parts, etc., in different ways.

67:18 Multiplex superparticulare contains the whole many times and one part; and its species are double sexquialterum, double sexquitercium, etc.; or triple sexquialterum, triple sexquitercium, etc. And thus join any species of multiplicity with all the species of superparticulare proportion, as is necessary.

68:1 Multiplex superpartiens contains the whole many times and many parts of it; and its species are double superbipartiens, double supertripartiens, etc.; or triple super^{bi}partiens, triple supertripartiens, etc. And join any species of multiplicity with all the species of superparticularity³² proportion, as was mentioned above about multiplex superparticulare.

68:6 The difference or interval between a tone and a fourth or vice-versa is a minor third which is superquinquepartiens twenty-seven or thirty-two to twenty-seven. Therefore the

³²It seems that this is a simple mistake in the manuscripts that was overlooked by Reckow.

difference between a minor third and a fourth is a tone, because a fourth is made up of those. The difference between a tone and a minor third is a minor semitone which is supertredecimpartiens two hundred forty-three, or two hundred fifty-six to two hundred forty<-three>. <A fifth is added to a tone and is called a tone with a fifth. Therefore the difference between a tone with a fifth and a fifth is a tone. A fifth is added to a semitone> and is called a semitone with a fifth. Therefore the difference between a semitone with a fifth and a fifth is a semitone. The difference between a semitone and a fourth or vice-versa is a major third. Therefore the fourth is made up of a major third and a semitone or vice-versa. Therefore the fourth is made up of those things. The difference between a tone and a major third is a tone. Therefore the major third is made up of two tones, which is superseptendecimpartiens sixty-four, or eighty-one to sixty-four. The difference between a minor semitone and a tone is the greater semitone, which is not used. The fifth is added to a major third and is called a major third with a fifth. Therefore the difference between a major third with a fifth and a fifth is a major third. The fifth is added to a minor third and is called a minor third with a fifth. Therefore the difference between a minor third with a fifth and a fifth is a minor third.

68:27 In similar fashion all proportions after the unison can be added to an octave, and to a double and triple octave, thus: semitone with octave, tone with octave, etc., up to the best simphonia, the double octave. And other simphoniae can be

called double sexquitercium, which is a fourth with an octave, and double sexquialterum, which is triple <and> is called a fifth with an octave. And these symphoniae are different from each other in a most noble way. The same description applies also to intervals made up with a double octave, and a triple octave, if necessary, etc.

69:5 The octave [diapason] is so called from dia, which means from,³³ and pan, everything, and sonus, containing all sound, that is enclosing all harmonic proportions in itself, and it is always from one letter of the monochord up to the eighth letter which is the same. The fifth [diapente] is so called from dia, which means from, and penta, five, - from one letter or string to the fifth one. A fourth [diatesseron] is so called from dia, which means from, and thesar, meaning four, - from four, that is from one letter or string to the fourth one; and this can be said either joined together or separately. A major third [ditonus] is so called because it contains two tones. A tritone is so called because it contains three tones, but this is not used except rarely amongst composers of organum. A minor third [semiditonus] is so called because it is an imperfect ditonus. But the difference is a greater semitone, which is not used except very rarely. The semitone is called an imperfect tone, because its ratio is not exact, since if from every superparticulare is removed some proportion, what remains will not be a ratio. A tone is so called

³³This is actually a spurious derivation, since δια primarily means "through," as in the adverb δια-παντός, "throughout."

from intoning [tonando], or from sounding [sonando], etc.

70:1 Note that if you want to add a proportion to a proportion, put down the terms of one proportion, for example two and one, which are duple and subduple terms. If you want to add another similar proportion, put two under the two mentioned before, and one under the one, and it will be similar to it. Multiply two by two, and it will make four; and one by one and it will be one. And thus it will be the proportion of four to one, which \langle is \rangle quadruple, which indeed is twice duple; and thus duple is added to duple. Multiply two by one, and you get two, which indeed is midway between four and one. Therefore look back at the terms four, two, and one. Two to one is duple proportion; four to two is another duple proportion. Therefore the proposition is clear that four to one is twice double proportion, which indeed is adding proportion to proportion. Proceed in exactly the same way with similar and dissimilar terms by adding. If you want to proceed by subtracting, put the terms of one, such as four to one; put under the four, two, and under the one, one; divide four by two and the answer will be two, and divide one by one and the answer will be one. Those two answers will be the remainder of this operation. And show the difference between duple and quadruple which is another duple. Or in another way: put four and one, and under those multiply two and one in contrary fashion, and the result will be the difference between quadruple and duple, which is another duple. And thus if one rule does not suffice, another suffices. And note that when you operate by this rule,

if the terms of one proportion are multiplied by the same number, the result will always be the same proportion. And by these rules the clever [reader] can produce all the above-mentioned proportions that there are from duple proportion or equality, etc., and more, as will be made clear below.

⟨Part Two⟩

70:26 It should be known that organum is an equivocal word. Sometimes organum purum is said as in "Iudea et Ierusalem" in duplum or "Descendit de caelis" or "Gaude Maria," etc. Organum is said in another way as in the instrument the organ [organorum], as the prophecy said, "with stringed instruments and the organ [organo]." Sometimes it is said in another way as in organum triplum, although improperly, as in "Posui adiutorium" in triplum. Sometimes simplex organum is said as in monophonic [simplex] conducti. It is used in another way, as by the common clerics, as in double, triple, quadruple, etc., conducti and similar things, although improperly. And there is also another organum, as all the antiqui called it, and that is when they combined sounds with sounds in concord. And this universal method [modus] of all types (except monophonic conducti) is of any measuring and from any plainsong melody, etc.

71:6 In this way we can proceed about the universal method, above two notes of the previously mentioned notes, and firstly thus: let the melody or tenor have CC, low written notes [signa gravia]; the organum will begin on the octave on a high c against the first C already mentioned, and it can end on the

same ⟨c⟩ on an octave against the last C already mentioned, having high cc against low CC, or it can end on a low G on the fifth having cG, or in another way on the fourth on F having cF, or on E on the third, which some people like, although improperly, having cE, or on ⟨E⟩ flat on a deutera sinemenon, having c ⟨E flat⟩ on a minor third, or it can end on the same (71:14) note on a unison, having cC. Whence the rule: every natural harmonic beginning among the best composers of organum is either on a unison or an octave or fifth, or fourth, or minor third or major third. But the ending properly speaking is not on a minor third or major third, although some people improperly finish their notes there. But every ending is on the octave or fifth or fourth and unison. But note that a fourth is rarely found at the end in dupla, but is appropriate and occurs more often in tripla and quadrupla with another consonance, etc. An example: let the tenor or melody be CC; the organum can begin on G with a fifth, and can end on c with an octave, or on G with a fifth, or on F with a fourth, or on E with a major third, or on ⟨E⟩ flat with a sinemenon and minor third, or on C with a unison or unison sound, bringing them together thus: Gc, GG, GF, GE and GE flat, GC. Again beginning on F on a fourth, sounding: Fc, FG, FF, FE, FC. Proceed in a similar way beginning from E on a major third, thus: Ec, EG, EF, EE, EC. Again on ⟨E flat⟩ beginning on a sinemenon or minor third, sounding or singing: E ⟨flat⟩c, E ⟨flat⟩G, E ⟨flat⟩F, E ⟨flat⟩E ⟨flat⟩, E ⟨flat⟩C. Again beginning on a unison sound and ending on the octave, thus Cc; in another way ending on a fifth

or fourth, on a major third or minor third and unison, thus: CG, CF, CE or on a sinemenon CE <flat>, and CC, and all this with voluntary tempus; and yet it would be better not too fast, but let the concordance or melody be moderately done.

72:12 Again just as we have done it over CC before, let it be done in this way on CD. Let the tenor be CD, the organum beginning on an octave and ending on an octave, or fifth, or fourth, or minor third, or major third, or unison, thus: high cd, ca, cG, cF, cD. Or beginning on the fifth on G and ending as before, thus: Gd, Ga, GG, GF, GD. Or beginning on the fourth and ending, etc., as Fd, Fa, FG, FF, FD. Or beginning on a minor third or major third and ending the same, etc., thus Ed, Ea, EG, EF, ED. Or beginning on the same note with the same ones, as Cd, Ca, CG, CF, CD.

72:20 Again on CE, thus: beginning on an octave, ending on an octave, fifth, fourth, major third or minor third, and the same pitch, thus: ce, ch, ca, cG, cE, and cC. Beginning on a fifth with the same ones, thus: <Ge, Gh, Ga, GG, GE>. Again on CE beginning on a fourth thus, with the same ones: F<e>, Fh, Fa, FG, FE, FC. Again beginning on CE with the same ones: Ee, Eh, Ea, EG, EE, EC, etc.

72:26 Or on CF it is cf, cc, cb, ca, cF, cD, etc. With all double notes ascending, proceeding in similar fashion.

72:28 Or with descending notes in this way, and first on high cc thus: beginning on the octave below and ending with the same notes mentioned above, thus: Cc, <C>a, CG, CF, CC. Again descending from the unison, thus: cc, ca, cG, cF, cC. Or be-

ginning on a in this way on a minor third. Or on c⟨c⟩ beginning below on the minor third, thus: ac, aa, aG, aF, aC. Or on cc and below, thus: Gc, Ga, G⟨G⟩, GF, G⟨C⟩, and thus with all the single notes above and below, etc., all as can be seen in their examples.

73:6 There follows now another discussion, just as we have said above about the concords above two notes, according to the six harmonic concords; thus we now intend to proceed with those same concords above three notes, beginning thus: let there be CCC in the melody or tenor, beginning above with an octave, with the first two notes staying the same and not differing, and the third after also the same, as with high ccc; and then altering the last pitch to a fifth, fourth, minor third, major third and unison thus: ccG, ccF, ccE, and with the sinemenon ⟨ccE flat⟩, ccC. Altering the second note [signum] according to what was said before and with the other notes staying the same: cGc, cGG, cGF, cGE, cGC. Again altering the second note, thus: cFc, cFG, ⟨c⟩FF, cFE, cFC. Again altering the second note, thus: cEc, cEG, cEF, cEE, cEC. Again altering the second note, thus: cCc, cCG, c⟨C⟩F, cCE, cCC.

73:18 What we have done above, now we shall do below, thus: let the melody or tenor have high ccc, beginning above; [the organal voice can have] low CCC, or altering the last note after the second note, thus: CCF, CCG, CCa, CCc. Again altering the second and changing the third, thus: CFC, CFF, CFG, CFa, CFc. Again altering the second and changing the third, thus: CGC, CGF, CGG, CGa, CGc. Or altering the second and changing the

third, thus: CaC, CaF, CaG, Caa, CaC. Or altering the second and changing the third: CcC, CcF, CcG, Cca, Ccc. And thus anyone who is clever, if he wants, can continue the three single notes according to the abovementioned order, as is more fully contained in the concords of the monochord, etc.

<Part Three>

74:2 Here follows a discussion about discant. Discant is the concordance of certain diverse melodies. And it is necessary that there be at least two voices there concordant with each other according to what I shall say, and according to a consideration of their relationship to each other; and this occurs in many different ways both on the part of the <dis>cantus and on the part of the tenor. The melody or tenor is the first melody, created or made first. The discantus is the second created or made, and made concordant above the tenor. Their concordance is considered thus: in the first mode principally, as follows: the first note of the discant must concord with the first note of the tenor, either on an octave, or fifth, or fourth, or minor third, or major third, or unison. And because in the first mode the first note is long in the discant, similarly it is long in the tenor, and therefore they are made equal to each other. However, there is no concern about the following breve, because it is placed indiscriminately according to what seems best, and it is of one tempus against one tempus in the tenor. And the third long note is equal to the third long in the concord, as described before, and the fourth breve against the fourth breve. And proceed thus in the first mode,

for as long as you like. Whence the rule: all the odd-numbered notes of the first mode are long and must concord with the tenor; but the others, or even-numbered notes, are placed indiscriminately.

74:21 And it should be noted that you must always keep three things in mind: sound or proportion, concordance, and tempus and how much tempus. And there is one universal rule amongst such people who are customarily concerned with things of this kind, which is: if the melody or tenor is on the same pitch or unison, the discant can remain with this unison or descend to some consonance, or ascend, as seems best. And this applies above two notes, of there are only two, because every last note must be concordant. Or, if there are three notes, and one ascends and descends or descends and ascends, etc., the discant must operate in the opposite fashion, if it occurs naturally. And there is a difference between these people and discant singers [discantatores] who are called plain singers, since plain discant singers, if the tenor ascends, then they ascend, and if the tenor descends, they also descend; but these people do not, but sing according to the method described above. And it should be noted that there are three types of discant singers: there are some who are plain and new; and they do as mentioned above, except occasionally, since sometimes without even knowing it they descend or ascend in a different way to a different consonance than to the parallel one [consimilem]. There are certain others, who use the other method mentioned above, and they are the true discant singers. And there are

certain others, who partly agree with the first group and partly with the others, etc., as will be made clear more fully below. It should be noted that there are three ways [modus] of making discant according to the true discant singers. The first method is from the close proportions, that is within a fourth or fifth; another method is from further ones, which are contained within an octave, together with the ones mentioned above; the third method is from the furthest ones, within an octave and a fifth, or a double octave, or further, etc. Let us begin from the near ones, thereby not going beyond the fifth by the rule of the tenor, and this occurs in three ways: either from the nearer ones such as below the major third inclusively, or from the further ones below the fifth and above the major third, or from both. First let us make a clausa or punctum in common with these, that is according to the last part, which indeed is clear notating in this way on the part of the tenor, and at first without a rest, thus: ccccdccdc all longs of three tempora, so they are equipollent to a long and a breve in first mode. Again in the discant, and in first mode, thus: cdecf with a plica descending, dcedhG with a plica ascending, equipollent to a long and a breve, cdecdhc. The text of these notes is in French, <Je cuidai mes maus celer ... mais je ne puis ... amors ne mi lesse,> etc.³⁴

76:7 Discant is, etc., as was said above. And it should be noted that discant with a tenor has many and several consider-

³⁴Reckow found this motet beginning on folio 218a verso of W₂, though there are some melodic variants from the version described by Anonymous IV.

ations. One is when there is modus rectus in the discant and the tenor, that is when there is in both parts a mode according to the length of correct longs and correct breves, and thus it is called correct with correct. And there is another mode, which is called overflowing, above the correct measure of correct length and correct brevity, and it is called on the other hand ultra mensuram, or can be called modus obliquus by transfer of terms,³⁵ and thus is oblique with oblique. The third mode is made up of both of the above.

76:16 Correct with correct is of many kinds: either first with first or against first, or second against second, or sixth against sixth. And those three modes are called homogeneous [ad idem]. There is another mode with diverse to diverse, as first against second, first against sixth and second with sixth, together with the reverse of these, that is: put the second in the discant and the first in the tenor, or the sixth in the discant and the second in the tenor. First with first is a, second with second b, sixth with sixth c; first with second is d, first with sixth e, second with sixth f, sixth with first is g, second with first is h. And they are called correct

³⁵Transumptio is the use of one term in place of another. In grammatical and rhetorical usage, it means transfer of terms, or metaphor. Quintilian used the word as a translation of the Greek μετάληψις (Institutiones Oratoriae 8, 6, 37 [ed. Winterbottom (Oxford: The Clarendon Press, 1970), p. 470]). In Aristotelian Logic this meant the conversion of a hypothetical proposition into a categorical one. Modus obliquus is a grammatical term for moods other than the indicative, parallel to the usage casus obliquus. This passage in Anonymous IV might therefore be considered a locus classicus for the use of Trivial terminology in mediaeval music theory.

with correct, because the first, second, and sixth modes proceed with correct longs and correct breves, as mentioned above, etc.

76:27 There are certain other modes that are beyond correct measure [ultra rectam mensuram], although they have something in common with the preceding modes, etc. And they are the third, fourth and fifth. And we say that they occur in three ways, like the others: homogeneously, like the third against the third, the fourth against the fourth, the fifth against the fifth; or diversely, thus: the third against the fourth, the third against the fifth, the fourth against the third, the fourth against the fifth, the fifth against the third, the fifth against the fourth.

76:34 Correct mode against ultra mensuram or oblique can be in many ways: the first against the third, the first against the fourth, the first against the fifth; or, second against third or fourth or fifth, sixth against third or fourth or fifth. For the rest put the tenor in the place of the discant, as in all those that are beyond measure, and put all the other modes in the place of the tenor. And there seems to be a subversion or conversion³⁶ of the aforementioned modes, like third above first or second or <sixth>, and fourth above first or second or sixth, and fifth above first or second or sixth, etc.

³⁶ Subversio means literally "turning upside down." Conversio was a rhetorical term in Classical Latin, meaning the change from one type of literary composition to another (Quintilian, Institutiones Oratoriae 10, 5, 4 [ed. Winterbottom, p. 607]). In Scholastic Logic it referred to the conversion of propositions. See Petrus Hispanus, Summulae Logicales 1.18-1.20 (ed. Bocheński, pp. 6-7).

<CHAPTER FIVE>

77:9 Here follows a discussion of three-part settings and four-part settings and copula. About three-part settings, thus: let there be proposed or given a discant in the first mode both in the tenor and in the discant. The tenor thus: FGFDF with a breve rest, then FFaGF with a breve rest, and thus we can understand the second ordo of the first mode, and it is called "Omnes" according to what is extracted from "Viderunt Omnes," and thus by repetition two or three or several times it suffices for the tenor, etc. The discant or second voice thus: beginning on the same pitch, and proceeding close by below the fifth thus: FEFGF with a breve rest and with the abovementioned ordo, c̄c̄baGa with a breve rest, and then cbcaaGccaGaG breve, repeat, etc. And thus with the two proposed melodies concurring we add a third melody, thus, and it is called triplum by some as the second melody is called the duplum and the tenor primum. In the triplum thus: close by, and this below the octave: abcbdc with a breve rest with the same mode mentioned above, c roundb cba<GF> three for a long, acdcdcdcba<G> three for a breve, abcb breve, repeat, etc.

77:24 The odd-numbered notes of the first mode in the duplum are in concord with the odd-numbered notes of the first mode in the first voice or tenor, according to the concord of the unison or octave for a concord or perfect concord, or fourth

or fifth for the middle concords or minor third or major third <for the imperfect concords>, although the major third and minor third are not reckoned as such among some people. Nevertheless amongst the best composers of organum and for example in certain lands like in England, in the region³⁷ which is called Westcuntre, they are called the best concords, since among such people they are greatly used.

78:5 There are certain good composers of organum and composers of melodies, who, not according to the rules by the aforementioned consideration, place discords in place of a concord or concords, and we do this through a certain subtlety of notes or notae and sounds; like a whole tone before a perfect concord, whether it is the penultimate or otherwise, since the rule is: every penultimate note before a rest, which is called the end of the notes, is long. And if the penultimate is a whole tone in the duplum above the tenor as in organum purum, it will be excellently concordant, although a whole tone is not a concord. And this method is used a lot amongst composers of organum purum [puros organistas] and among Lombards when they are singing organum [organizantes]. But the difference is that in their books composers of organum put the last note, which is after the penultimate, on the same pitch with the tenor or on an octave, but some Lombards sometimes put the last note and sometimes not, and desist from putting a final concord on the

³⁷The word patria here does not mean "my native land; my own country." The meaning of the word by this time had become more general - "country; territory, region, province." See Mediae Latinitatis Lexicon Minus, ed. J.F. Niermeyer (Leiden: E.J. Brill, 1976), and cf. Reckow, Der Musiktraktat . . . Vol. 2, p. 1, footnote 2.

same pitch. Nevertheless it is not a philosophic concord.

79:12 Here is an example of a concord of the abovementioned whole tone in organum purum: gg for an ornamented long [longa florificata],³⁸ as is used in organum purum, ec with an appropriate rest, bdbd in ligature, and then dbG with a rest, bdbd in ligature, bcaa touching, but not in ligature and without ornamentation, with elongation of the final G or without; of which the tenor of the whole thing is continuing on G, and has G at the end in a stable fashion as in the drone of an organ [burdone organorum]. And such an example or something similar can be seen or will be able to be seen in several places of organum purum, and very effectively, as is shown or will be shown more fully in the seventh chapter below.

80:7 Example in discant, thus: its tenor is aG⟨F⟩ two or three or several times, and the duplum of the discant cdef, with its descent, said several times, etc. And thus it is clear, that the vile and unpleasant discord, which is the sixth, and should be avoided by everyone for the most part, and itself is the penultimate before the perfect concord, which is an octave, is the best concord in such an arrangement and position of notes or pitches, as mentioned before. And understand in the same way about the other discords, as is made clear more fully below. Understand in this way also without the final penultimate notes. Again there are some, who multiply many kinds of discords be-

³⁸The longa florificata, or longa florata, is discussed at the end of Chapter Six and in more detail in Chapter Seven of the treatise.

fore one perfect concord, like before an octave, and rejoice and laugh greatly on that account, and it seems to be a great and wonderful thing to them, that this can be done, like dfcdcbc in the upper part, and in the lower part, thus: DDEFEDC. And thus by yourselves you can see sufficiently all the other discordant proportions that are exactly the same, together with certain other things discussed below, etc. And note the same before the fifth, and this is found in organum purum and in certain other places. But <it is> difficult for common men to do this and we shall state this more fully in the seventh chapter that follows, etc.

80:24 With the two proposed parts well prepared, the duplum with the primum, as was mentioned, although they may be sufficient with each other, to these is added a triplum which can be in one way, thus: abcdc breve rest, in the same mode mentioned above, then cbcbaGF three for a long, acdcdcdcbaG three for a breve, abcb, repeat, as much as you like, and it will concord well with the aforementioned parts. The rules of the triplum are as follows: if it is in first mode, all the odd-numbered notes must be concordant with all the odd-numbered notes of the duplum in such a way that the first is concordant with the first, the third with the third, the fifth with the fifth, and so on. Thus we also say that all the odd-numbered notes must be concordant with all the odd-numbered notes of the tenor: the first with the first, the third with the third, the fifth with the fifth, and so on, etc. Then we bring them together thus: the duplum is concordant with the

primum in every odd-numbered note, the triplum similarly with the primum, and the triplum with the duplum always in every odd-numbered note, therefore any one with any one and <any one> with the other two, and so all three will concord with each other and will be concorded with. All the even-numbered notes in the triplum are placed indiscriminately, either in a concord or not. Nevertheless good singers place the even-numbered notes, as is most appropriate or suitable, both with the even notes in the duplum and with the even notes in the primum, in the following way: if the duplum ascends, the triplum descends, and vice-versa. And this once or twice or three times at most. And let the triplum do similarly with the tenor once or twice or three times at most, since amongst such people it is judged blameworthy, if one part ascends too much together with either one of the other parts, as will be made clear more fully below.

81:15 Understand in the same way about a quadruplum added to the previous parts: if it is in first mode, all the odd-numbered notes must be concordant with all the odd-numbered notes in the triplum and duplum and primum. If now it ascends with one of them, this can be done appropriately two or three times like with the other parts discussed above; but it must go in an opposite direction now with the triplum, now with the duplum, now with the primum, or agree with them on a unison. And we understand about the others [that they should occur] in this way sometimes and not much, because it may be perceived as too much. But note that the quadruplum can sometimes put itself³⁹

³⁹Eum = se? There appears to be no other plausible antecedent.

in a discord with one of the previous parts, which the triplum cannot do with the parts underneath it, - for example if [the quadruplum] has placed itself in a major third or minor third with the tenor or duplum, and the other three were in a concord or concurring on an octave, fifth or fourth. And thus of necessity there will be one discordant sixth, if the major third or minor third is the third above the tenor. And it is very remarkable how such things can be compatible with each other without discord.

81:29 The rest of the things that are appropriate will be explained below. End of the fifth chapter.

<CHAPTER SIX>

82:2 Now let us move on to the final point, in the following way. It should be known that many methods and a large number of types of volumes, as we have said above, occur in such matters. There is a certain volume containing quadrupla such as "Viderunt" and "Sederunt," which Perotin the Great composed, and in which are contained colors and beautiful things. For the greater part of the whole of this art you may make use of those together with certain similar ones, etc. And there is another volume of fine great tripla such as "Alleluia Dies Sanctificatus," etc., in which are contained colors and beautiful things in abundance. And if anyone held a divine service, in this way he would have the best volume of this art, and we shall deal with this volume below in this chapter. The third volume is of triple conducti that have caudae like "Salvatoris hodie" and "Relegentur ab area" and similar ones, in which are contained the final sections [puncta] of the organum at the end of the verses and in some not, and a good composer of organum is expected to know these perfectly. And there is another volume of double conducti that have caudae like the ancient "Ave Maria" in duplum and "Pater Noster commiserans" or "Hac in die reg(e) nato," in which are contained the names of several conducti, and similar things. And there is a fifth volume of quadruple, triple and duple [conducti] without caudae, which

used to be much used by minor singers, and similar things. And there is a sixth volume of organum in duplum like "Iudea et Ierusalem" and "Constantes," which indeed never occurs in triplum nor can occur that way on account of a certain mode of its own which it has that is different [extraneum] from the others, and because the longs are too long and the breves too short. And it seems to be an irregular [irregulativus] mode compared to the abovementioned modes of the discant itself, although it is regular in itself, etc. And we shall discuss this more fully in the seventh chapter. And several other volumes are found according to the different arrangements of the composition and melody, like single conducti lagi [?]⁴⁰ and several other similar things, and all these things are made clear more fully in their own books or volumes.

82:30 For the present we intend to deal with the great tripla mentioned above, which proceed in one way according to three types, and proceed in a similar way according to three other types, and again proceed according to another single type, and thus we bring them together through the one, the second, and the third, with the exception of the common division that is mentioned above with certain other things. One type is one which proceeds according to the three types of measure with the mode of the discant throughout, or in all three, the tenor and duplum and triplum, without the species of organum purum or anything similar. Another type is when the primus in its whole section [punctum] only keeps two notes on the same pitch

⁴⁰ See Reckow, Der Musiktraktat . . . Vol. 1, p. 94, footnote 42.

(83:9) or different pitches, which indeed can occur appropriately in similar fashion in a semipunctum. But in the duplum and trip- lum it has the mode of discant, and agrees at the ends according to one proportion of the six concords, as was said above. The third type is with the same tenor, but in the duplum and triplum it has a different [extraneum] mode, so that the first <note> is too long and <the second> too short, so that it seems to share for a time the characteristics of both discant and organum; and it is neither discant nor organum. But it agrees appropriately at the ends with the primum, as was mentioned above. And note that the first note of the tenor continues along as mediator and is sustained in places, according as it is more appropriate for the concords placed above it, or rests according to the unsuitable discords, etc., as seems most appropriate. The second⁴¹ type of the second style of tripla is of the three mentioned above of the first type, when one part proceeds according to the mode of discant, as is mentioned above, with a pleasant mode in a fixed time, proceeding slowly, more slowly, very slowly; fast, faster, very fast; with middling speed, more middling, and very middling. And they are called in the first state of the measuring of time, or in the second or third, increasing, decreasing, or being in the middle. The third type of the <second> style of tripla is when it has a pleasant or pleasing section at the beginning performed in a slow mode, and afterwards in the second section a fast mode,

⁴¹The first type is not discussed.

but not as slow as a certain mode of discant, and afterwards, in the third, some diverse mode, different from those, as (83:30) was discussed above. And all these things can be seen in the great triplum "Allelui Posui adiutorium," and in many others. But note that according to good composers of organum, such sections [puncta] mentioned above must be found in some species of delectation and color or beauty of this art, and thus we bring together different methods of making melodies in this part. And together with such things⁴² some people add a section of organum purum after what we have discussed above for a more noble ending, and in similar fashion add, through the method of making organum, two or three notes⁴³ at the beginning that are appropriately concordant, for a suitable and more notable beginning, and put them as embellishment before a long rest, as is the custom in organum purum and in such things, etc. Proceed further through examples, as can be seen better in the tripla, or in examples extracted from them.

⁴²It is not clear whether the following discussion is to be considered as amplification of the preceding, or as the alia simplex diversitatis promised above (83:2).

⁴³Puncta again. A verbum aequivocum in Anonymous IV, as it appears to be used indiscriminately in the masculine and neuter genders. "Notes" seems correct here. Cf. 87:10-11 and 88:6-12.

〈CHAPTER SEVEN〉

84:12 The seventh chapter deals with irregular modes. These modes are called voluntary,⁴⁴ and are of many kinds.

84:14 One of them proceeds through one longa duplex, 〈and〉 a semibrevis or minima, and a longa debita, and continues in this way with just such a brevis and longa, etc., as can be seen in "Alleluia Posui Adiutorium," since there is put in the place of the copula in the following form: 〈f〉 duplex longa, fe in ligature, fd in ligature, ec, df, gf with a plica, dc with a plica, a duplex longa in ligature with c.⁴⁵ And that mode is called the first irregular mode, and is well suited for organum purum.

84:21 The second irregular mode is a brevis parva or a minima with a duplex longa or a nimis longa in ligature, and again the same brevis and the same longa, and it continues in this way, etc.

84:24 The third irregular mode is a longa nimia with two longae tardae (irrespectively they are called breves), and a third [longa] mediocris, in ligature as is most appropriate, again three similar notes in ligature, and continuing in this way, etc. There is also another irregular mode of the same fine type,⁴⁶ as follows: one longa nimia and three notes in liga-

⁴⁴The Latin word is voluntarii, which in the Middle Ages began to take on connotations of "capricious" or "arbitrary." Cf. my Chapter I, p. 33.

⁴⁵This passage can be found, notated as Anonymous IV describes, on folio 17 of the Montpellier manuscript, third note-group of the duplum. See my Chapter II, p. 99.

⁴⁶It seems that maior here, and below (85:1), is used with non-comparative force. Cf. 82:8.

ture, as mentioned above, and another three, of which the first two are nimiae breves and the third a mediocris or nimia longa, and thus three similar notes continuing, etc. Again there is another type, and a fine one: one longa nimia and three mediocres, as mentioned before, and three festinantes except the last, which is called mediocris or nimia, and in this way three mediocres and three festinantes, etc.

85:4 The fourth irregular mode is as follows: three festinantes, as mentioned before, although the last is a nimia, and three festinantes in a similar way, and continuing in this way, etc. Or three festinantes, as mentioned before, and three mediocres, and continuing in this way by means of mediocres, and sometimes in a mixed fashion by means of festinantes and mediocres, etc. There is also another type by means of mediocres only, although the last of the three is a nimia. And in this way the intelligent reader will easily understand similar such things.

85:10 The fifth irregular mode is one nimia and several - such as three or four or five - longae mediae, although the penultimate note is a nimia. And choose the number according to what suits best and is pleasing to your inclination, according to the desire [appetitum] of any of the abovementioned modes.

85:14 The sixth irregular mode proceeds in this way: four notes in ligature, and three in ligature and three in ligature, etc., all breves mediocres, although the penultimate note of the four is a nimia, and every penultimate note of the three is similarly a nimia. And this mode can be varied in many ways, as will be made clear at some other time.

85:18 And in accordance with the seven gifts of the Holy Spirit is the seventh mode - most noble and worthy, more voluntary and pleasing. And this mode is a mixed and common mode, and it is made up of all the two-note ligatures mentioned above, and all the three-note ligatures, and all the four-note ligatures, etc. And properly speaking it is called pure and noble organum [organum purum et nobile], etc.

85:23 Note <that for> the understanding of organum purum the aforementioned irregular modes will suffice with certain other things mentioned later. Again note that the description of them suffices for the method of their notation, as is made clear more fully above; and their notation [figuratio] is exactly the same as in the other regular modes, although in some there is a difference, etc.

85:28 Rests, however, proceed very voluntarily according to what seems best to the singer or performer and this applies to the smallest rests, the larger ones, and the medium ones. Double rests, however, are rarely found in organum purum.

85:31 The regular concords of organum purum are the unison and octave, fourth and fifth, minor and major third; and those six are called the first concords, and are called perfect and imperfect <and> medium, as has been mentioned before in the chapter on concords. There are said to be only five secondary concords, because the unison is excluded, and they are the double octave, which is harmonically called the quadruple proportion, the fifth with an octave, which is called the triple proportion, the fourth with an octave, which is called the

double sesqui (tertium), and the major third with an octave and the minor third with an octave, as was mentioned above in the aforementioned chapter. And thus we have six [concord]s and five, which makes eleven. Also there are the tertiary or distant concord]s: the minor third with two octaves and the major third with two octaves, the fourth with two octaves, and the fifth with two octaves, which indeed is an effect that can be produced in the human voice by some men, but not by all. And there are nineteen notes in the range of the diatonic genus, and fifteen concord]s, etc. Only rarely do some people reach further, to the triple octave, although it is found in common use on the organ, and even further on other instruments, such as strings or pipes, or for example on the high-sounding cymbals, where this is found more commonly amongst good musicians.

86:13 In organum purum the longs and breves are recognized by many different ways and methods. One way is as follows: every first note, whether it is a concordant note in one of the aforementioned concord]s or not, will either be a longa parva or a longa tarda or a [longa] media, whatever ligature it appears in, whether a two-note ligature or a three-note ligature, etc. But the following distinction applies: if it is concordant, the tenor will be sounding or held over; if it is not concordant, [the tenor] will be silent or remain quiet. Also every last note will be long and concordant. Also every penultimate note before a long rest, such as at the end of a punctus or clausula, is long. Also every penultimate note figuratively perceived long by mode [will be long], whether it is concordant or not. Also, for every note in a two-note

ligatures: the first, if it is in a concord, is long; if it is in a discord it is short in itself except as regards [the rule of] the penultimate above. Also for every last note in two-note ligatures: if it is concordant, it is long; if it is discordant, it is short in itself, etc. Also for every note of three-note ligatures: the first is long if it is in a concord; if not, then it is not. For every second note of three-note ligatures: long in a concord, otherwise not [long] in itself, and if it is in penultimate position as mentioned above then it is long. For every last note in three-note ligatures: long in a concord, short in a discord, and long in the above-mentioned penultimate position. For every note of a four-note ligature: the first or second or third or fourth are long in a concord, short in a discord.

87:10 Also two notes on the same pitch, whether they are in a concord or not, are put in place of a longa florata.

87:12 Also currentes with an antecedent as in "Viderunt" with eleven notes have a certain mode that is different from the others: it does not matter whether they are concordant or not, <but> descend quickly and as equally as possible. If the first note is a currens, then its antecedent is the one before it, or the next one before it, or the third before it, etc. But in the aforementioned descending passage the antecedent will not be the note before, but the second note before, and that <note> is long; and the first note before, although it ascends, will be a currens. Therefore there are twelve currentes there and not eleven, and the second note before is a long <note>.

⟨because⟩ there is a concordant fifth there. And if it were not in a concord, it would still be long, but the tenor would be silent, because every note before, or second or third note before, is long of necessity because of the appropriateness of its descent or its appropriateness in the descent. And this one thing is simply in accordance with the human voice, but it is not necessary in instruments, etc. The same must be said for currentes ascending and descending, or descending and ascending, etc., with their antecedent or antecedents.

88:3 Also there are sometimes several longs by reason of the color or beauty of the melody, whether they are concordant or not, and this is clear by itself in the performance.

88:6 Also there is a certain duplex longa florata. And that is placed in the beginning, in the name of the most holy Alpha, and it is called the beginning before the beginning; and it will always be concordant. Also there are some who put two or three [notes] in place of one; and the first can be concordant or discordant, and always begins slightly before the tenor, and the tenor begins with the second note, if it is concordant, or with the third. And that third note has an elongation that must be ornamented [florificandam], as we have said before. And some people can put three or four [longs] in ligature before the beginning of the tenor; if the last one is concordant, the tenor will begin with it; if it is discordant the tenor will begin with the next one following that is concordant. And there is this one point, which is that if there is a formation of the melody ⟨because of⟩ a certain beauty ⟨or⟩ appropriate

color, etc., then similar things apply which pertain to the beginning before the beginning.⁴⁷

88:18 The ending in the name of the most holy Omega can finish in many ways. Some people finish with a single note either in an octave or a unison or a fifth, but rarely on a fourth, unless it is a stringed instrument, and more rarely on a major or minor third, as the men from the <West> do. But all make the abovementioned beginning of the tenor. There are some others, who put one penultimate [long] whether it is concordant or discordant, as long as it is appropriate, etc., before the abovementioned octave. And there are some others, who place one, two, three or more [longs] before that penultimate note, as seems best or seemed best, from one mode or from several, as long as there is not too much delay before reaching the end. And some good composers of organum more willingly put discord in such penultimate notes than concords, etc., and similar things, as can be seen more fully in the books of organum.

89:3 Whatever occurs between the abovementioned beginning and ending, is considered as mediation.

89:5 In the name and for the honor of the most holy mediator of all things, who is the true saviour, Jesus Christ, son of the living God, who is the crown and glory of all the saints, to which glory we can all attain together with the holiest one.

⁴⁷The phraseology here (inceptionem ante principium) differs from that above (principium ante principium). Anonymous IV therefore is presumably referring to the method of the duo vel tria loco unius (88:8) rather than to that of the duplex longa florata above (88:6-8).

APPENDIX

CHRONOLOGY OF THE MAJOR THIRTEENTH-CENTURY TREATISES

Garlandia	c. 1260
Lambertus	c. 1260-1279
Anonymous of St. Emmeram	1279
Franco	c. 1280
Anonymous IV	after 1280
Hieronymus of Moravia	1280-1304

The earliest important thirteenth-century treatise seems to be that of Johannes de Garlandia. Erich Reimer places it in the second quarter of the century.¹ This is based upon the fact that Franco's treatise is clearly dependent upon Garlandia's and Reimer accepts Besseler's dating of c. 1260 for the Ars cantus mensurabilis.² In an article that appeared after the conclusion of Reimer's work,³ Frobenius shows that a date of c. 1280 is far more likely for Franco, which would make it possible that Garlandia's treatise was written somewhat later. The identification of the author of the musical treatise with the English grammarian John of Garland, championed by Waite,⁴ and more recently by Antley,⁵ has been effectively disproven by Reimer,⁶ so that no clues may be had from Paetow's carefully reconstructed biography of John of Garland.⁷ Anonymous IV is probably referring to Johannes de Garlandia⁸ when he mentions

¹Reimer, Johannes de Garlandia . . . Vol. 1, p. 12.

²Reimer, Johannes de Garlandia . . . Vol. 1, p. VIII.
Heinrich Besseler, "Franco von Köln," MGG 4 (1955), p. 692.

³Wolf Frobenius, "Zur Datierung von Francos Ars cantus mensurabilis," Archiv für Musikwissenschaft 27 (1970):122-127.

⁴William Waite, "Johannes de Garlandia, Poet and Musician," Speculum 35 (1960):179-195.

⁵Bob R. Antley, "The Rhythm of Medieval Music" (Ph.D. dissertation, Florida State University, 1972).

⁶Reimer, Johannes de Garlandia . . . Vol. 1, pp. 12-17.

⁷Louis Paetow, The Morale Sclarium of John of Garland, Memoirs of the University of California 4,2 (Berkeley: University of California Press, 1927):82ff.

⁸Anonymous IV's treatise is of course closely based upon that of Garlandia, and he twice, though in other places, quotes the beginning of Garlandia's work (33:8 and 45:16).

a "Iohannes dictus Primarius," and "Iohannes supradictus" in the following passages:

Liber vel libri magistri Perotini erant in usu usque ad tempus magistri Roberti de Sabilone et in coro Beatae Virginis maioris ecclesiae Parisiensis et a suo tempore usque in hodiernum diem.

Simili modo etc., prout Petrus notator optimus et Iohannes dictus Primarius cum quibusdam aliis in maiori parte <notabant> usque in tempus magistri Franconis primi et alterius magistri Franconis de Colonia, qui inceperant in suis libris aliter pro parte notare. Qua de causa alias regulas proprias suis libris apropiatas tradiderunt. [46:18-26]⁹

Sed abbreviatio erat facta per signa materialia a tempore Perotini Magni et parum ante, et brevius docebant, et adhuc brevius <a tempore> magistri Roberti de Sabilone, quamvis spatiosè docebat. Sed nimis deliciose fecit melos canendo apparere. Qua de causa fuit valde laudandus Parisius, sicut fuit magister Petrus Trothun Aurelianus in canto plano. Sed de consideratione temporum parum aut nichil sciebat, ut dicebatur. Sed magister Robertus supradictus optime ea cognoscebat et fideliter docebat. Post ipsum ex documento suo fuit magister Petrus optimus notator, et nimis fideliter libros suos secundum usum et consuetudinem magistri sui et melius notabat. Ed tempore illo fuit quidam, qui vocabatur Thomas de Sancto Iuliano Parisius antiquus. Sed non notabat ad modum illorum, sed bonus fuit secundum antiquiores. Quidam vero fuit alius Anglicus, et habebat modum Anglicanum notandi ac etiam in quadam parte docendi. Post ipsos et in tempore suo fuit quidam Iohannes supradictus, et continuavit modos omnium supradictorum usque ad tempus magistri Franconis cum quibusdam aliis magistris sicut magister Theobaldus Gallicus et magister Symon de Sacalia cum quodam magistro de Burgundia ac etiam quodam probo de Picardia, cuius nomen erat magister Iohannes le Fauconer. [50:14-36]¹⁰

⁹ (The book or books of Master Perotin were in use up to the time of Master Robertus de Sabilone, and in the choir of the Parisian cathedral of the Blessed Virgin, and from his time up to today.

This was done in a similar fashion, etc., just as Petrus the best notator and Iohannes called the First, along with certain others, for the most part used to notate, up to the time of Master Franco the first, and the other Master Franco of Cologne, who for their part used to notate differently in their books. And for this reason they handed down other rules of

From these passages the following tentative chronology may be derived:

- (c. 1200) Perotin
 Robertus de Sabilone/Petrus Trothun Aurelianus
 Petrus (optimus notator)/Thomas de Sancto
 Iuliano/alius Anglicus
 Iohannes (dictus Primarius)
- (c. 1280) Franco/Theobaldus Gallicus/Symon de Sacalia/
 Magister de Burgundia/Iohannes
 le Fauconer

Names on one line are considered as contemporary, or approximately so, and the lapse of time between the names on one line and those on the next is uncertain. There is insufficient evidence to date the work of any of these men¹¹ except that of Perotin and Franco.¹² However, by positing a lapse of

their own, appropriate to their books.)

¹⁰ (But an edition was made by means of written notation from the time of Perotin the Great and a little before, and they used to teach more briefly, and hitherto more briefly <from the time> of Master Robert de Sabilone, although he used to teach extensively. But he rendered the melody extremely delightfully in his singing. And for this reason the Parisian was very praiseworthy, just as Master Petrus Trothun Aurelianus was in the plainsong. But he knew little or nothing about the concept of the tempora, as was said. But the abovementioned Master Robert knew those things very well and taught them faithfully. After him Master Petrus was the best notator, as appears from his own testimony, and he notated his own books very faithfully according to the use and custom of his master, and even better. And at that time there was someone who was called Thomas de Sancto Iuliano, a Parisian of olden times [antiquus]. But he did not notate according to their way but he was good according to the older generation [antiquiores]. But there was another man, a certain Englishman, and he had the English method of notating and even partly of teaching. After them and in his time was the Iohannes mentioned above and he continued the methods of all the people mentioned above up to the time of Master Franco with certain other masters like Master Theobaldus the Frenchman and Master Symon de Sacalia, with a certain master from Burgundy and also a certain honorable man from Picardy, whose name was Master Iohannes Le Fauconer.)

¹¹ See Reckow, Der Musiktraktat . . . Vol. 1, Personen-Register.

twenty years between each generation of notatores (post ipsum, post ipsos, etc.), the date of c. 1260 is reached for Johannes de Garlandia.

There is no other evidence from other sources that allows a closer dating.¹³ The musical examples of Johannes de Garlandia's treatise itself include fragments from the Notre Dame repertoire as well as some early motets. This, together with the obvious respect of later authors towards Johannes de Garlandia as auctoritas, can do no more than reinforce the very approximate dating so far reached. Until further evidence comes to light a closer dating is not possible.

It should be noted that this discussion is based on the edition of Johannes de Garlandia as transmitted by Reimer, which assumes that the manuscript P (Paris, Bibliothèque Nationale, fonds latin 16663) does not represent Garlandia's original. His argumentation¹⁴ remains convincing despite Antley's objections.¹⁵

¹²Perotin's dates are still somewhat controversial. The contrasting views are clearly summarized in Ian Bent, "Perotin," in The New Grove Dictionary of Music and Musicians, ed. Stanley Sadie (London: Macmillan, 1980). According to one theory, Perotin's abreviatio of the Magnus Liber occurred between c. 1180 and 1190; according to the other, between c. 1200 and 1210. In either case the (highly) tentative calculation reaches a mid-point of c. 1260 for Garlandia. Frobenius' dating of Franco is persuasive (see below).

¹³For further mention of Garlandia in other treatises, see Reimer, Johannes de Garlandia . . . Vol. 1, pp. 3-10.

¹⁴Reimer, Johannes de Garlandia . . . Vol. 2, pp. 1-7 and 39-42. Rudolf Rasch, Johannes de Garlandia en de Ontwikkeling van de voor-Franconische Notatie, Musicological Studies, vol. 20 (Brooklyn: Institute of Mediaeval Music, 1969) shares this view.

¹⁵Bob Antley, "The Rhythm of Medieval Music," and idem,

The next two treatises, those of Lambertus and the Anonymous of St. Emmeram, are closely related. The Emmeram treatise was written partly as an attack on Lambertus, and is dated 1279 in its verse explicit.¹⁶ Since the Anonymous of St. Emmeram says that Lambertus "nuper (recently) composuit" his work, Sowa suggests a date of c. 1275 for the Lambertus treatise. "Nuper" is a vague word, however. Since Lambertus is heavily dependent on Garlandia, all that can be proposed with certainty is a date after Johannes de Garlandia and before 1279.

Frobenius has shown that Franco appears to refer to Lambertus in his treatise, and that the Anonymous of St. Emmeram, despite criticizing certain "Franconian" procedures in Lambertus and other authors, does not mention Franco. From this, and other evidence, he concludes that Franco must have written after Lambertus and the Anonymous of St. Emmeram, therefore c. 1280.¹⁷ Andrew Hughes's objection to this conclusion¹⁸ - that Reckow gave a terminal date of 1280 for the treatise of Anonymous IV, which mentions Franco - cannot be sustained, since Reckow's dating was based only on approximate

"Textual Criticism and John of Garland's De Mensurabili Musica: A Question of Authorship," paper delivered at joint meeting of the American Musicological Society and the Society for Music Theory, Denver, Colorado, 6-9 November 1980.

¹⁶ See Heinrich Sowa, Ein anonymer glossierter Mensuraltraktat 1279 (Kassel: Bärenreiter, 1930), p. 132 and XVIII, footnote 1.

¹⁷ Frobenius, "Zur Datierung."

¹⁸ Andrew Hughes, "Franco," in The New Grove.

paleographical evidence,¹⁹ and Reckow himself has revised his suggested dating for Anonymous IV since the appearance of Frobenius' article.²⁰

The terminus post quem for Anonymous IV must now be taken as c. 1280, since Franco of Cologne is specifically mentioned in Anonymous IV's treatise (46:23 and 50:29).

The work of Hieronymus of Moravia was dated between 1272 and 1304 by his modern editor.²¹ The latter date is fixed since it was at that time that the single surviving manuscript was received into the library of the Sorbonne. The former date must now be revised, since Hieronymus' compendium contains the treatise of Franco.

¹⁹ See Reckow, Der Muskitraktat . . . Vol. 2, p. 2, and Der Musiktraktat . . . Vol. 1, p. 5 and footnote 12.

²⁰ See Reckow, Die Copula, p. 51, footnote 1.

²¹ Simon Cserba, Hieronimus de Moravia O.P.: Tractatus de musica, Freiburger Studien zur Musikwissenschaft, 2nd series, vol. 2 (Regensburg: Friedrich Pustet, 1935).

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