EARLY GAFFURIANA: NEW ANSWERS TO OLD QUESTIONS

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MONG the numerous unpublished treatises that Franchinus Gaffurius wrote in his formative years, five theoretical works are still extant.¹ Although they have been referred to in recent studies,² an investigation of their collective contents has not been undertaken until the present article. The examination of these treatises yields a wide range of material which considerably augments our knowledge of Gaffurius and contemporary musicians, and also points to a possible answer to the origin of the motetti missales. The five treatises are the following: (a) Extractus parvus musicae (ca. 1474), in codex 1158 of the Biblioteca Palatina, Parma; (b) Tractatus brevis cantus plani (ca. 1474), also in codex 1158; (c) Tractatus praticabilium proportionum (ca. 1482), MS A 69 in the Civico Museo Bibliografico Musicale,³ Bologna; (d) Micrologus vulgaris cantus plani (ca. 1480), MS A 90 in the Civico Museo; and (e) Practica musicae (1487), MS Sigma IV 37 in the Biblioteca Civica, Bergamo.

Although the *Extractus parvus musicae* is undated, it is unquestionably an early treatise, probably Gaffurius's first theoretical work. It was dedicated to Philip Tressenus, a nobleman of Lodi who was also a priest, a professor of music, and a close friend of Gaffurius.⁴ Caretta ⁵ suggests

¹ Not included in this article are manuscript copies of *Theoricum opus* and *De* harmonia musicorum instrumentorum opus, which were later printed. The Practica musicae MS of 1487 is included because it is only a prototype of Book I of the printed version. MSS of earlier theorists that Gaffurius copied for personal study are mentioned in passing.

² By A. Caretta, L. Cremascoli, and L. Salamina, in *Franchino Gaffurio* (Lodi, 1951), written to celebrate the fifth centenary of Gaffurius's birth. Four of the treatises are dealt with summarily; another work, the *Micrologus vulgaris cantus plani*, is not mentioned, and also is not found in the list of Gaffurius's opera in *Die Musik in Geschichte und Gegenwart* (hereafter MGG), IV, col. 1240.

³ Formerly the Biblioteca del Liceo Musicale.

⁴ Tressenus (Trexenus) was the copyist of a lengthy commentary on Juvenal by Battista Guarini. See Paul Kristeller, *Iter Italicum*, I (Leiden, 1965), 298.

⁵ Op. cit., p. 56.

that the treatise was written between 1474 and 1476, during the two years that Gaffurius lived in Mantua. But internal evidence in the manuscript indicates that it was written no later than early in 1474, when Gaffurius was active as a priest in his hometown of Lodi and a singer in the cathedral.⁶ Several references ⁷ to musical instruction *ad utilitatem iuvenum Laudensium*, to *iuvenes nostri sotii*, and to *Laudenses clerici*, show clearly that the treatise was intended for use by young students and clerics in Lodi and was written while Gaffurius was still a resident there.

The Extractus parvus musicae is precisely the kind of work that its author called it in his prefatory remarks: a treatise culled from the writings of recognized musicians and philosophers. It has value not only because it shows the writers who influenced Gaffurius directly, but also because it indicates some of the more popular treatises of his time. The work contains twelve *tractatus* devoted to the elements of music, plainsong, and mensural notation. It consists mainly of lengthy quotations from Marchettus of Padua, Isidore of Seville, Johannes de Muris, and Ugolino of Orvieto.⁸

Marchettus is represented by his Lucidarium and Brevis compilatio, the latter being a practical digest of the Pomerium, a treatise on mensural notation. The lengthy excerpts from Lucidarium that Gaffurius used in his Extractus undoubtedly came from a manuscript⁹ he wrote in 1473 at the Benedictine monastery of St. Peter in Lodi. The presence of the entire Brevis compilatio¹⁰ in his Extractus is significant because it is an unknown and rare source of this work, the only other complete version of which is a Brussels manuscript.¹¹ When Coussemaker first published the Brevis compilatio¹² he used a manuscript from Saint-Dié which in its middle section lacks three folios on tempus perfectum, material that is found in Gaffurius's Extractus. Vecchi's recent edition of Brevis compilatio¹³ does not refer to the version in Gaffurius.

⁶ Ibid., p. 53.

⁷ Fols. 19^v, 21^v, 23^v, 21^v, 23^v, 27^v.

⁸ See Appendix I for a list of sources that have been identified.

⁹ In the Biblioteca Sola-Cabiati, Tremezzo. Contents of the MS are described in *Marcheti de Padua Pomerium*, ed. Joseph Vecchi (Rome: American Institute of Musicology, 1961), p. 8; see also Caretta, *op. cit.*, pp. 48, 53.

¹⁰ Gaffurius omitted the short concluding section on ligatures, probably because elsewhere in the treatise he discusses ligatures according to the *Ars discantus* of Johannes de Muris.

¹¹ For the known sources see G. Vecchi, "Su la Composizione del *Pomerium* di Marchetto da Padova e la *Brevis Compilatio,*" Quadrivium, I (Bologna, 1957), p. 3.

¹² In Scriptorum de Musica Medii Aevi (hereafter CS), III, 1.

¹³ See note 11, above.

The widespread influence of Johannes de Muris, still a vital force among late-15th-century theorists, is reflected in the *Extractus* by numerous citations from his *Libellus cantus mensurabilis, Ars discantus,* and *De numeris.* Gaffurius was fully aware of the mensural practices current in the ars antiqua and ars nova, and their relation to the notational system of his own day. In introducing a lengthy excerpt from *Ars discantus,* he shows ¹⁴ the mensural development *in arte nova* from music sung *secundum antiquos cantores et regulas veteris artis.* He continues by comparing the black and red note values of ars nova with the later white notation, which he says was adopted *propter faciliorem modum scribendi.*¹⁵ In the extract from *Ars discantus* he follows the original text literally, but modernizes it by using white notation in the examples and by adding the more recent semiminim, which he says may be either black or red.

A major source of eight of the twelve *tractatus* in the *Extractus* is the *Declaratio musicae disciplinae* by Ugolino of Orvieto. The fact that Gaffurius was well acquainted with Ugolino's work and used it extensively in his own first treatise requires a reconsideration of that theorist's influence on Gaffurius. At one time the latter owned a copy of Ugolino's *Declaratio* which he presumably acquired after 1480, since he did not mention Ugolino in his *Theoricum opus musice discipline* of 1480 but did mention him in the *Theorica musicae* of 1492.¹⁶ Although it is perfectly possible that Gaffurius acquired this particular copy of Ugolino's *Declaratio* after 1480,¹⁷ it cannot be said that Gaffurius failed to mention Ugolino in his *Theoricum* of 1480 because he lacked knowledge of that theorist's treatise, since earlier in 1473 he had borrowed copiously from it without any acknowledgment of his source.

It is more likely that Gaffurius was following the rather frequent practice of Renaissance theorists to neglect to cite the sources of their information, especially if the source in question was a contemporary writer or one recently deceased.¹⁸ In the *Extractus* Gaffurius was a young theorist al-

14 Fol. 22^r.

¹⁵ Gaffurius is one of the few theorists who offers a reason for the change from black to white notation. His statement does not appear in his later printed works.

¹⁶ Albert Seay, "Ugolino of Orvieto, Theorist and Composer," Musica disciplina, IX (1955), 120.

¹⁷ The manuscript is dated 1477. See Ugolini Urbevetanis Declaratio Musicae Disciplinae, ed. A. Seay (Rome: American Institute of Musicology, 1959), I, 4.

¹⁸ Cochlaeus and Zarlino may be cited as typical examples. In his *Tetrachordum* musices Cochlaeus borrowed from Adam von Fulda, Gaffurius, and the *Opus aureum* of N. Wollick and M. Schanppecher without giving any sources, although he freely acknowledged such early writers as Isidore, Durandus, and Richard of St. Victor. See

most totally dependent on established sources. His *Theoricum*, published in 1480 during his brief stay in Naples, was, although considerably more original in content, still the work of an earnest student striving for recognition. But by the time of the publication of the *Theorica musicae* of 1492, an enlarged version of the *Theoricum*,¹⁹ Gaffurius was firmly established as *magister phonascus* at the cathedral of Milan,²⁰ and had investigated the writings of many early and contemporary theorists.²¹ Thus in the *Theorica* he could afford to acknowledge the contributions of Ugolino, particularly in reference to his transmission of Boethian principles.²²

The extensive borrowings from the *Declaratio* that are found in Gaffurius's *Extractus* show that in both practical and speculative music Ugolino was the first important influence on Gaffurius. The five books of the *Declaratio* are represented both by long sections that are simply copied and by various chapters that are presented in summary form. Of particular interest is the fact that Gaffurius also knew Ugolino's only extant musical compositions,²³ two-voice pieces that are written in red and black notation and contain explicit directions for the performance of proportions applied to the upper voice part.²⁴ Gaffurius did not include the music, but at the conclusion of a long exposition of Ugolino's treatment of the five proportional genera he added the same directions as an illustration of a practical application of proportional and mensural signs to musical composition.²⁵

The second treatise in the Parma codex 1158 is Tractatus brevis cantus plani, dedicated to Paulus Grecus, another cleric of Lodi and a

²⁰ Gaffurius obtained this position in 1484. Cremascoli, op. cit., p. 73.

²¹ As the first treatise in the so-called *Trilogia gaffuriana* the *Theorica* summarizes Gaffurius's extensive studies in speculative music. In addition to a host of ancient and medieval authorities it also contains references to such later writers as Giorgio Anselmi, Cola Montanus, and Marsilio Ficino.

22 Op. cit., I, 1, and IV, 3.

²³ Found in MS 1151, Bibliotheca Casantense, Rome. See Albert Seay, "Ugolino of Orvieto, Theorist and Composer," *Musica disciplina*, IX (1955), 152.

24 Ibid.

25 Extractus, fol. 30°.

my edition of *Tetrachordum musices* (Rome: American Institute of Musicology, 1969), pp. 3, 90.

When Zarlino's Istitutioni harmoniche first appeared in 1558, eleven years after Glarean's Dodecachordon, it contained a complete presentation of Glarean's system of twelve modes but without any reference to its author.

¹⁹ For a comparison of the two editions see Franchini Gafuri Theorica Musicae, ed. G. Cesari (Rome, 1934).



Pinacoteca Ambrosiana, Milan

A portrait of Franchinus Gaffurius by a painter of the Leonardo da Vinci school. member of a noble family. His name also appears several times in the *Extractus*²⁶ as a friend of both Tressenus and Gaffurius. In the preface of this work Gaffurius recalls the hospitality he and Paulus Grecus enjoyed as guests of Tressenus, who was probably the oldest member of the trio, since Gaffurius called him *professor musicae*.²⁷ It is very likely that Paulus Grecus was a novice in the art of music when the *Tractatus* was dedicated to him, since it opens with a Guidonian hand that bears the inscription Sancte bassiane doce paulum grecum cantare.

This treatise, devoted to the elements of music and to plainsong, is also highly derivative, a fact that Gaffurius states at the beginning of the treatise.²⁸ The *Lucidarium* of Marchettus is again an important source, but other sources include the *Tonale* of St. Bernard,²⁹ Anonymous XI,³⁰ and the *Introductio musicae* of Johannes de Garlandia.³¹ The latter is represented in Gaffurius's discussion of the mutation of vocables, while Anonymous XI is followed in the presentation of eight *coniuntiones*. These chromatic tones in Gaffurius are B-flat, E-flat, F-sharp, G-sharp, c-sharp, e-flat, f-sharp, and g-sharp, corresponding to those in Anonymous XI.

Both the *Extractus* and the *Tractatus* contain marginal comments of unusual significance, for they refer to an otherwise unknown theoretical work by Guillaume Dufay, entitled *Musica*.³² Since both treatises have glossary comments on this work by Dufay, and since one of the comments mentions the composer Bernardo Ycart, it must be assumed that Gaffurius took both manuscripts with him to Naples, for his biographer relates that Gaffurius knew the Catalan (or Franco-Flemish) theorist and composer in that city.³³ For these reasons it appears likely that the manu-

²⁷ Paulus Grecus was already dead in 1503 (Caretta, op. cit., p. 56).

²⁸ His opening words are: "Incipit tractatus brevis cantus plani extractus a musicis doctoribus per franchinus gaforum ad paulum grecum."

²⁹ Gerbert, Scriptores Ecclesiastici de Musica (hereafter GS), II, 267.

³¹ Ibid., I, 157.

 32 This may be the same treatise that Haberl mentions in Vierteljahrsschrift für Musikwissenschaft, I (1885), 147. Entitled Tractatus de musica mensurata, it was written secundum doctrinam Wilhelmi du Fay. The manuscript has vanished without a trace.

³³ G. Reese, Music in the Renaissance (New York, 1954), p. 149, considers Ycart a Spaniard; H. Hüschen, MGG, XIV, col. 931, leans toward a Franco-Flemish origin. At the conclusion of De harmonia musicorum instrumentorum opus, a treatise Gaffurius published in 1518 at Milan, Pantaleone Meleguli wrote that while in Naples Gaffurius cum Ioanne Tinctoris, Gulielmo Guarnerii, Bernardo Ycart, compluribusque musicis acutissime disserere non dubitaret.

²⁶ Fols. 1^v, 34^v.

³⁰ CS, III, 426.

script glosses were written at Naples between 1478 and 1480.

There are three marginal comments in all -- two in the Extractus and one in the Tractatus³⁴ — which relate respectively to dots, rests, and \$ quadrum b molle. In the first of these Gaffurius relates that Guilielmus Dufay in his Musica names four kinds of dots, namely, punctus perfectionis, divisionis, alternationis, and transportationis or transformationis. As an illustration of the last type of dot several notes of music are given from the tenor of Missa voltate in qua by Ycart, a Mass not listed in any other source.³⁵ This example was most probably interpolated by Gaffurius and was not part of the original text, since Ycart belonged to a generation of composers younger than Dufay,³⁶ who died in 1474. All the names of the various *puncti* can be found in 14th- and 15th-century treatises with the exception of the *punctus transformationis*, which seems to be unique.³⁷ But its other name, *punctus transportationis*, was retained by Gaffurius in his Practica musicae of 1496, in which a musical example shows a semibreve preceded and followed by a punctus transformationis,³⁸ just as in the Ycart example.

The second gloss, a definition of the *pausa*, is of particular interest. If, as Gaffurius states, it does come from Dufay, the renowned composer must have known some works of Johannes de Muris, for the definition is an almost exact, although shortened, version of the one Johannes gives in his *Libellus cantus mensurabilis*.³⁹ In the third gloss, on the properties of \natural quadrum and b molle, the reader is made aware of a scholastic Aristotelian phraseology in the reference to *natura* and *essentia*. A similar definition of *proprietas* occurs in Ugolino.⁴⁰

For several reasons the Tractatus praticabilium proportionum, which

³⁴ Fols. 26^v and 27^v in the *Extractus*, fol. 56^v in the *Tractatus*. See Appendix II for the complete texts; also F. Albertus Gallo, "Citazioni da un Trattato di Dufay," *Collectanea historiae musicae*, IV (Florence, 1966), 150.

³⁵ See MGG, XIV, col. 931, for Ycart's known works.

³⁶ Gallo, *op. cit.*, accepts the Ycart example as part of Dufay's *Musica*. It is hardly likely, however, that Dufay was acquainted with the music of this younger composer, whose music was still printed by Petrucci in 1506.

³⁷ Adam von Fulda alone names six *puncti* used by the *antiqui*, but does not include the *punctus transformationis*. See GS, III, 362.

³⁸ See Franchinus Gaffurius, Practica musicae, ed. Clement A. Miller (Rome: American Institute of Musicology, 1968), p. 105f., Ex. 11. In connection with this dot Gaffurius also names a *punctus translationis*, which has the same function as the *punctus transformationis*. (Other references are to this edition.)

³⁹ Cf. Appendix II, no. 2, and the *Libellus* definition: "Pausa dicitur vocum amissio seu aspiratio mensurata pro tot temporibus quot fuerint spatiis mensurata quoniam pausa valet tot tempora quot occupat spatia."

40 Seay edition, I, 14.

was written between 1481 and 1483,⁴¹ is the most important Gaffurius manuscript still extant. Designed as an independent treatise and dedicated to Corradolo Stanga of Cremona, it eventually became Book IV of *Practica musicae*, printed in 1496. Thus it is a vital element in disproving the widely held theory ⁴² that the *Practica* was completed about 1483, when in fact only Book I, on plainsong, was finished at that time, and even this book was considerably revised in its later, printed version.⁴³

The *Tractatus* consists of fifty-eight folios devoted exclusively to a study of five proportional genera and includes one hundred and fifteen musical examples, which range from simple proportions in *proportio dupla* to complex types in *proportio superpartiens*. In the *Extractus* Gaffurius had already included text and diagrams from Ugolino's detailed treatment of the five genera in his *Declaratio*. It is probable that Gaffurius wrote his *Tractatus* to demonstrate that all these arithmetical proportions have a practical application in music. This is indicated both in the title of his treatise and in his comments in the preface, wherein he avers that his proportional study is directed to practical music and would be useful to perceptive youths.⁴⁴

There is a small but significant difference between the musical examples of proportions found in the *Tractatus* and those found in Book IV of *Practica musicae*. The latter demonstrate in the more involved proportions a practice which is apparently unique with Gaffurius — an exact application of isometer. This consists of a tenor whose metrical plan under a proportional sign is retained when the opposite proportion cancels the original proportion. In the proportion $\frac{10}{7}$, for example, the tenor has a measure of seven semibreves (or their equivalent values); at the appearance of the opposite proportion $\frac{7}{10}$, the proportion is cancelled but the tenor retains seven semibreves in a measure. This gives rise in these examples to measure units which range from five to seventeen semibreves in a measure.⁴⁵

Although the same musical examples are used in the Tractatus, it is

41 Cremascoli, op. cit., p. 67.

42 Found in Cremascoli, op. cit., 69; MGG, IV, col. 1237, and Cesari, op. cit., 25.

⁴³ For a discussion of this point see Clement A. Miller, "Gaffurius's Practica Musicae: Origin and Contents," Musica disciplina, XXII (1968), 105.

44 Fol. 2: "proportiones ipsas ad praticam redactas ipse comperies"; fol. 1: "docili juventuti facile conducat."

⁴⁵ Gaffurius's knowledge of the earlier practice of isorhythmic and isomelic devices must have been an important influence in the formation of his ideas on isometer. His *Practica* contains the isorhythmic tenor of Dunstable's four-part motet *Veni sancte spiritus*. evident that Gaffurius had not yet completely formulated his isometric principles, for a number of the examples either lack or exceed the number of semibreve units needed to make a true isometer. But in very case, when these examples appeared years later in the *Practica*, they had been altered to create genuinely isometric compositions.

One valuable aspect of the *Tractatus* is found in Gaffurius's many comments on musicians and compositions of his time. Having just left Naples and his invigorating musical discussions with Tinctoris and other musicians, Gaffurius apparently took every opportunity in the *Tractatus* to demonstrate the breadth of his knowledge. As a result many of his comments have considerable significance, especially since a number of them do not exist in any other known source.

In order to give a comprehensive view of the many composers cited by Gaffurius in the *Tractatus*, and also to make a comparison with similar citations in the *Practica*, it seems best to begin by presenting a list of the composers' names:

Tractatus praticabilium proportionum (ca. 1482)

Basiron, Philippe Brolo, Bartolomeo Busnois, Antoine Cervelli, Egidius Domarto, Petrus de Dufay, Guillaume Faugues, Guillaume Fedé, Jehan Godendach, Johannes (Bonadies) Guarnerii, Gulielmus Martini, Johannes Ockeghem, Johannes Quadris, Johannes de Tinctoris, Johannes Weerbeke, Gaspar van Practica musicae (1496)⁴⁶

Amerval, Eloy d' *Basiron, Phillipe **Binchois**, Gilles Bonadies (Godendach) Brassart, Jean Brumel, Antoine *Busnois, Antoine Compère, Loyset *Dufay, Guillaume Dunstable, John Guarnerii, Gulielmus Isaac, Heinrich Josquin des Prez Obrecht, Jacob *Ockeghem, Johannes *Tinctoris, Johannes Weerbeke, Gaspar van

It is clear that between the dates of these two works Gaffurius's views on significant composers changed considerably, and that this change was a reflection of the musical milieu in which he lived. In the *Practica* names of such older men as Brolo, Cervelli, and Quadris are missing, while

⁴⁶ It should be remembered that this *Practica musicae* list includes all four books. Composers in its Book IV (the counterpart of the *Tractatus*) are shown by asterisks. many newer masters appear, among them Brumel, Isaac, and Josquin. The fact that the latter does not appear in the *Tractatus*, while Gaspar and Martini, who were also working with him in Milan, are mentioned, gives further support to the thesis that Josquin's reputation as a composer did not begin before about 1490.⁴⁷

Among the composers active in the first half of the 15th century about whom Gaffurius writes in his *Tractatus* is Johannes de Quadris: in his motet *Gaudeat ecclesia* this composer had indicated *proportio sesquialtera* with the mensuration sign C, a procedure which the theorist calls *intolerabile*.⁴⁹ This comment allows us now to identify Johannes de Quadris as the composer of the anonymous *Gaudeat ecclesia in* the Trent codices.⁴⁹ This motet, based on an Office text for St. Anthony of Padua, has a mensural section in C which supports Gaffurius's comments. It also comes from a period during which Quadris was known to be active, and follows a technique similar to that in his few known works.⁵⁰

Other composers named by Gaffurius in his remarks on *proportio* sesquialtera are Brolo, Faugues in his Missa Unius, and Fedé in the motet O lumen ecclesie pro S. Dominico.⁵¹ The Faugues Mass is also mentioned by Tinctoris in his Proportionale.⁵² Although Fedé apparently was wellknown in his time and was named by several contemporary poets, only one composition of his has been definitely identified.⁵³ The motet named by Gaffurius is the only other work of his that we know of.

A Missa Veni sancte spiritus by Egidius and a Missa Spiritus almus by Don Marto are mentioned by Gaffurius because of the *inexcusabiles* errores he found in their mensuration signs. Egidius (Egidius Cervelli) and Don Marto (Petrus de Domarto) are two composers represented in the Vatican manuscript San Pietro B 80, which is devoted to composers

⁴⁷ At the court of Galeazzo Maria Sforza he was a copyist as well as singer. There is a record dated October, 1475, of manuscript paper given "ad Juxtino de li nostri cantori" for "un libro ch'esso ha ad fare per la nostra capella." See Archivio Storico Lombardo, 1879, p. 251.

⁴⁸ Fol. 19^r. This term is a favorite epithet of Tinctoris in his *Proportionale*, a work that Gaffurius cites in the *Tractatus*.

⁴⁹ Cod. 88, fols. 15^v-17. See Denkmäler der Tonkunst in Österreich, Vol. 76, p. 72, for the music.

⁵⁰ Oxford, Canonici Misc. 213 contains an unicum, a four-voice *Et exultavit* dated 1436; in 1506 Petrucci printed the two-voice canonic Lamentations.

⁵¹ In the *Tractatus* the names of these composers are given as Bartholomeus de Broliis, Faugus, and Ioannes Fede.

52 CS, IV, 171.

⁵³ W. Rehm in the article "Fede," *MGG*, IV, col. 1. Reese, *op. cit.*, p. 115, states that Fedé wrote both sacred and secular works, but does not give any sources.

of the second and third quarters of the 15th century.⁵⁴ Although the Mass by Egidius does not appear in other known sources, Domarto's *Missa Spiritus almus* must have been popular, for Gaffurius mentions it twice,⁵⁵ and Tinctoris refers to it no less than four times in various treatises.⁵⁶ In San Pietro B 80 Cervelli and Domarto collaborate on an untitled threevoice Mass, Cervelli providing the Kyrie and Domarto the following Mass sections. A two-voice example in Tinctoris of a *Patrem quinti toni irregularis* by Domarto ⁵⁷ proves to be the beginning of the Credo of the Cervelli-Domarto Mass, which thus can be called *Missa quinti toni irregularis.*⁵⁸ Such a *Missa irregularis* probably gave Tinctoris and Gaffurius the impetus to write their own *Missae irregulares.*⁵⁹

The *Tractatus* contains references to Tinctoris which help to illuminate his relationship with Gaffurius. Apparently the two theorists exchanged pedagogical motets written to illustrate mensural problems that they had discussed. Gaffurius speaks of his motet *ad Ioannem Tinctoris* called *Nunc eat et veteres*,⁶⁰ which he wrote to demonstrate proportions. In the *Musica practicae*⁶¹ he mentions a pedagogical motet by Tinctoris that shows rests used to indicate *modus maior et minor*.

This exchange tends to support the theory that the relationship of the two men was cordial, and that their musical encounters were discussions rather than disputes, as some modern writers suggest.⁶² Although Franchinus did not agree with Tinctoris on all aspects of music theory,⁶³ he did not hesitate to use Tinctoris's name to support his own position. In the well-known enumeration of outstanding composers in the *Practica*,⁶⁴ Tinctoris's name heads the list. And in a discourse by the 16th-century poet and musician Tomaso Cimello, the comment is made that in Naples

⁵⁴ See Charles Hamm, "The Manuscript San Pietro B 80," Revue belge de musicologie, XIV (1960), 45.

55 Fols. 5^r and 12^r.

⁵⁶ CS, IV, pp. 144, 171, 172, 175.

⁵⁷ Ibid., p. 60.

⁵⁸ The reason that Tinctoris used this title must be because the Mass is based on B-flat, which is a transposition of the fifth mode to a fifth below.

⁵⁹ Missa trium vocum secundi toni irregularis by Tinctoris and Missa sexti toni irregularis by Gaffurius.

60 Fol. 2^r.

⁶¹ P. 86.

⁶² Reese, op. cit., p. 178; W. Apel, Notation of Polyphonic Music (Cambridge, Mass., 1953), p. 90.

⁶³ E.g., his views on some ligatures. See *Practica musicae*, p. 79. ⁶⁴ P. 144. Gaffurius was closely associated with Tinctoris, suo carissimo amico.65

In a reference to the *peritissimi* who employ *proportio sesquialtera* correctly, Gaffurius names two compositions of Tinctoris not found elsewhere, a *Missa Helas* and a motet *Ad regem Ungarie*.⁶⁶ The Mass might have as a source his secular *Helas*, printed in the *Odhecaton*. The motet to the king of Hungary must refer either to the Spanish Ferdinand I, Tinctoris's employer in Naples, or to King Matthias Corvinus of Hungary, who married Ferdinand's daughter. Ferdinand (or Don Ferrante) used the title King of Hungary in his official documents, and Tinctoris did the same in the theoretical treatises he dedicated to Ferdinand.⁶⁷ The musical establishment at the court of Matthias was considered to be second to none.⁶⁶

The other composer among the *peritissimi* that Gaffurius names is Guglielmus Guarnerii, whom he knew personally in Naples and whom he calls *optimus contrapunctista*.⁶⁰ Present knowledge concerning this rather shadowy musical figure is both scant and contradictory. Eitner places him at the papal chapel between 1474 and 1483,⁷⁰ although Gaffurius is known to have met him at Naples sometime between 1478 and 1480. Further evidence that Guarnerii was in Naples at this time comes from a contemporary biography of Serafino dell'Aquila, in which it is stated that the celebrated poet studied music under Guillaume Garnier at Naples shortly before 1480.⁷¹ Serafino's progress in music was so rapid that in a few years he was renowned throughout Italy for his skill in singing and accompanying his own verses. Gaffurius probably met Serafino during

⁶⁵ G. Gaspari, Catalogo della Biblioteca del Liceo Musicale di Bologna (Bologna, 1890), I, 27, 205.

66 Fol. 20^v.

⁶⁷ Reese, op. cit., p. 145.

⁶⁸ In 1483 a papal envoy at the Hungarian court wrote that its *capella* was as distinguished as any that he knew. F. X. Haberl, "Die römische 'schola cantorum' und die päpstlichen Kapellsänger bis zur Mitte des 16. Jahrhunderts," *Vierteljahrsschrift für Musikwissenschaft*, III (1887), p. 242.

⁶⁹ Fol. 20°. See note 33, above. Gaffurius retains his name in the list of "very pleasing composers" in the *Practica musicae*. There are two motets in a manuscript at Cambrai that are entitled "Guarnerius musicus optimus." See R. Eitner, *Quellenlexikon* (Leipzig, 1901), IV, 401; also A. Ambros, *Geschichte der Musik* (Leipzig, 1887-1911), IV, 145.

⁷⁰ Loc. cit. He is not mentioned in Reese, op. cit., nor in MGG. Since records of singers in the Sistine chapel do not exist for the years 1477 and 1478, they can neither affirm nor refute Guarnerii's stay in Naples during those years.

⁷¹ W. Rubsamen, Literary Sources of Secular Music in Italy (Berkeley, Calif., 1943), p. 12. In the Sistine chapel records the composer's name was variously listed as Garner, Guarneri, Garnery, and Garnerii. See Haberl, op. cit., p. 231.

this time and may have used the phrase of optimus contrapunctista to praise Guarnerii's ability as a teacher as well as a singer and composer. The composition by Guarnerii to which Gaffurius refers is a Missa Moro perche non hai fede, another work unknown elsewhere. There is a secular piece of this name by Cornago which is found in Italian and Spanish sources.⁷² Since Cornago is known to have been in the service of Ferdinand I of Naples in 1466, it is very likely that Guarnerii became acquainted with it there and possibly used it as a basis for his own Mass.

The third musician Gaffurius said he knew in Naples is Bernardo Ycart, mentioned earlier in connection with Dufay's *Musica*. There are two references to Ycart, both in relation to notational practices of which Gaffurius did not approve.⁷³ In one he merely states that Ycart was remiss in notational accuracy in many songs, while in the other he names a *Missa de amor tu dormi*, a Mass which is otherwise unrecorded among Ycart's works.

On folio 17^r of the *Tractatus* Gaffurius speaks of Godendach, *musicus* peritissimus. This of course is the same person as the Latinized Bonadies whom Gaffurius calls his teacher in the *Practica.*⁷⁴ The use of Godendach's original surname in Gaffurius's treatise is the only known occurrence of this form of his name in the 15th century.⁷⁵ Even Godendach (or Bonadies) used the Latin form of his name when in 1473-74 he compiled the manuscript known as the Faenza Codex. One wonders why Gaffurius waited until years later to acknowledge him as his teacher. Since his references to Godendach in the *Tractatus* and the *Practica* are in connection with imperfect note values in various mensurations, Gaffurius's study with Godendach must have been devoted to practical instruction in mensural music. A Kyrie by Bonadies is found in the Faenza Codex.⁷⁶

⁷² H. Anglès, "Cornago," MGG II, col. 1682. It appears also in a French source, the Pixérécourt MS, fol. 54^{*}.

⁷³ Fols. 12^{v} , 22^{r} . Gaffurius and Tinctoris must have had many interesting conversations on this subject. Between them in their treatises they found fault with almost every major and minor composer of the century for alleged inconsistencies or errors. It is noteworthy that Gaffurius was much more tolerant of composers in his later printed works. In the *Practica musicae*, for example, his references to composers were mostly laudatory; instead of naming those with whom he disagreed, his favorite expression was "*pace* to others."

74 Pp. 104, 176.

 75 Charles van den Borren in "Bonadies," MGG, I, col. 102, stated that during the 15th century the form Godendach did not appear. But his hypothesis concerning the identity of the two names and the spelling of the original surname is proven correct by Gaffurius in this treatise. The latter also uses the form Godendach in Meleguli's biography.

⁷⁶ Facsimile in MGG, I, col. 103.

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Gaspar van Weerbeke is mentioned twice in the Tractatus. In the first instance Gaffurius refers to Gaspar's Missa Venus bant." The Mass occurs in numerous late-15th-century sources,78 and Gaffurius's reference to it in 1481 can serve as a terminus ad quem for the date of the Mass. It was very likely composed some years earlier, for Gaspar served at the court of Galeazzo Maria Sforza in Milan from 1471 to late in 1480, when he went to Rome.⁷⁹ Gaffurius probably became acquainted with the Mass before 1477, when he was still living in the vicinity of Milan and before he went to Genoa and then to Naples. The second statement about Gaspar may be significant in connection with motetti missales or "substitution" Masses, which are motets that replace certain parts of the ordinary and the proper of a Mass. In his statement Gaffurius refers to the incorrect mensural usage of Gaspar ille dulcissonus compositor in motettis suis ducalibus.⁸⁰ Here is proof that Gaspar wrote a number of his motets during his first stay at the Milan court, motets that Gaffurius later had copied in codices which are the only source of many of these works.⁸¹ The term dulcissonus seems particularly appropriate since these motets of Gaspar show a strong Italian influence.⁸² The suggestion that Gaffurius knew Gaspar,⁸³ meeting him about 1489 in Milan, is now generally strengthened, but the date of their meeting was probably more than a decade earlier.

The most important aspect of Gaffurius's comment on Gaspar is the reference to his ducal motets. Since the great majority of Gaspar's motets which Gaffurius collected are motetti missales, it is reasonable to believe that these are the ducal motets to which he refers. From this a new hypothesis on the origin of motetti missales is suggested, namely, that they were written at the behest of members of the Sforza family. The motetti missales are generally considered to spring from either the Ambrosian or the Roman rite, since they contain certain elements that are characteristic of both rites.⁸⁴ Some reasons which tend to indicate that they are more

⁷⁷ Printed by Petrucci in 1507 and entitled Missa O venus banth.

⁷⁸ See G. Croll, "Gaspar van Weerbeke," Musica disciplina, VI (1952), 75.

⁸¹ Cod. 2268-2269 in Milan, Fabbrica del Duomo, part of the so-called Gaffurius codices.

82 Croll, op. cit., p. 77.

⁸³ Ibid.

⁸⁴ Most writers call them Ambrosian, although Reese, op. cit., p. 227, suggests that they may have been used in Low Mass of the Roman rite. No motet substitutions occur for the Kyrie, which suggests the Ambrosian rite, since in it the Kyrie is not a separate chant; there are motet substitutions for the Agnus Dei, which is used in the

⁷⁹ Ibid., p. 68.

⁸⁰ Fol. 22^r.

closely connected with the Sforzas than with either liturgy are in the following:

- The motetti missales are known to have been composed between ca. 1472 and ca. 1490. This was a brilliant period at the Milan court under the Sforzas. Duke Galeazzo Maria Sforza appointed Gaspar to organize the court chapel in 1471.⁸⁵ After the assassination of the duke in 1476 his wife Bona became regent for their son, Gian Galeazzo, but the duke's brother Lodovico usurped her power in 1481 and later himself became duke of Milan, meanwhile restoring the musical reputation of the court.
- 2. The three known composers of motetti missales all worked for the Sforzas: Gaspar for Galeazzo Maria and Lodovico, Compère for Galeazzo Maria, and Gaffurius for Lodovico. Under Galeazzo Maria, Gaspar was vice abbot of the ducal *cantori de camera*, while under Lodovico he was in attendance at the duke's castle in Milan every day to sing the Mass in the ducal chapel.⁸⁶ Although Gaffurius was choirmaster at Milan cathedral and not a musician at Lodovico's court, his close connection with the latter is well-known. Both the *Theorica musicae* and the *Practica musicae* are dedicated to Lodovico, as well as the motet *Salve decus genitoris;* in turn Lodovico appointed Gaffurius to teach music in the newly-founded Gymnasium.⁸⁷
- 3. Gaspar's motets are called ducal motets by Gaffurius in his *Tractatus* praticabilium proportionum.
- One of the three motetti missales by Compère is entitled [Missa] Galeazescha, which is almost certainly a reference to Galeazzo Maria.⁸⁸
- 5. All the motetti missales are contained in the first three Gaffurius codices, which were completed ca. 1490. The fourth codex, finished in 1527 after Gaffurius's death, contains no motetti missales.⁸⁹
- 6. The combined usage of Ambrosian and Roman rites at Milan is evident in the Gaffurius codices, in which approximately one half of the

Roman rite but not ordinarily in the Ambrosian. For a thorough study of the motetti missales see Thomas L. Noblitt, "The Ambrosian Motetti Missales Repertory," Musica disciplina, XXII (1968), 77.

⁸⁵ Croll, op. cit., p. 68.

⁸⁶ Archivio Storico Lombardo, XIX (1887), 322, 328. Already in 1475 Galeazzo Maria had given an ecclesiastical benefice to Gaspar, "nostro cappellano et cantore dilectissimo." *Ibid.* (1878), p. 114.

⁸⁷ Cremascoli, op. cit., p. 89.

⁸⁸ Or possibly to his son Gian Galeazzo. See Noblitt, op. cit., p. 95.

⁸⁹ Ibid.

Mass ordinaries are Ambrosian and the other half Roman.⁹⁰ A similar relationship of the two liturgies is clearly evident in the *Practica musicae*.⁹¹ This indicates that the two rites had achieved a kind of modus vivendi at Milan in which elements of both were used. It further suggests that since motets substitute for sections of both liturgies in order to form motetti missales, the source of the latter is not related so much to a liturgical practice as it is to a highly personal conception of the Mass.

7. The motetti missales have been characterized as adding "an element of subjective interpretation to the objective ritual of the Mass," and as being "a natural expression of the humanistic spirit." ⁹² Both these characteristics of the motetti missales could have their source in concomitant traits of the Sforza family.

Gaffurius's reference in the Tractatus praticabilium proportionum to Johannes Martini has unusual significance. In the same passage in which he censures Gaspar's mensural practices he also speaks of Io. Martini, dulcissimus compositor in Missa de Io ne tengo quanto te ... et in aliis compositionibus suis.⁹³ Since Martini's name does not appear in any of the well-known contemporary lists of composers, such as those in Aron and Molinet,⁹⁴ nor in Gaffurius's own printed treatises, its presence here indicates that by 1480 he had gained some recognition as a composer, But it also is further proof of Finscher's thesis that Martini's renown was limited and that by 1500 it was no longer significant. It is very likely that Gaffurius met Martini in 1474 when Gaffurius was living in Mantua⁹⁵ and Martini stopped in that city before proceeding to a new position at the court of Ercole I in Ferrara. This would explain his apparently wide knowledge of Martini's works. The phrase dulcissimus compositor indicates the high regard Gaffurius had for Martini. The Missa Io ne tengo quanto te is found in the Gaffurius codices,⁹⁶ and most probably was

90 Ibid., p. 97.

91 Miller, op. cit., 111ff.

92 Noblitt, op. cit., p. 102.

⁹³ Fol. 22^r. Other composers mentioned here are Phillipon de Borges (and his *Missa tetradi plagis*), Busnoys famissimus compositor in multis compositionibus suis, and Okegem in nonullis Missis et cantilenis suis. The Mass of Phillipon de Borges (or Basiron) is unrecorded elsewhere. Gaffurius names him also in the *Practica*, but in another context.

94 L. Finscher, "Martini," MGG, VIII, col. 1725.

95 Cremascoli, op. cit., p. 54.

⁹⁶ Librone II, fol. 57[°]; modern edition in "Johannes Martini, Magnificat e Messe," Archivium musices metropolitanum Mediolense, ed. B. Disertori, (Milan, 1964).

written not later than 1474, when Martini was a singer at the court of Galeazzo Maria Sforza.

The Italian treatise entitled Micrologus vulgaris cantus plani Franchini Gafori Lauden(sis) lacks both a date and a dedicatee. Although it is mentioned briefly by Gaspari⁹⁷ and Kristeller,⁹⁸ it apparently has been completely overlooked in studies on Gaffurius. This modest treatise on the elements of music and the eight modes is clearly an early work, but much less derivative in material than are the previous writings. Its dedication is referred to in the Practica musicae manuscript (1487), folio 2": in vulgaris micrologo cantus plani ad paulem grecum sacerdotem laudensem, virum siguidem moribus et litteris ornatissimum. This then is a second treatise dedicated to Paulus Grecus of Lodi, and it attests to the continuing friendship of the two men. Some years probably elapsed between the writing of the two works. While the first contained numerous references to mi paule and seemed to suggest a teacher-student relationship, the comment in the Practica musicae manuscript shows that Paulus Grecus had achieved considerable stature in Gaffurius's eyes by the time of the second treatise.

A further indication of its date is found in Gaffurius's use of the term *deductio* for hexachord, a substitution that occurs in all his later works. This term was acquired from Tinctoris's *Expositio manus*, written ca. 1477, and was already used by Gaffurius in his *Theoricum musicae*, printed in 1480.⁹⁹ It is likely that the *Micrologus vulgaris cantus plani* was written ca. 1482, after Gaffurius had returned to Lodi and been named to a position at Monticelli through the recommendation of the bishop of Lodi.¹⁰⁰

Among the authorities listed in the treatise are Boethius, Guido, Marchettus, and Ioannes Antonio Certosino. The latter, also known as Ioannes Cartusiensis or Johannes Gallicus (d. 1473), is the only contemporary theorist named. Gallicus was strongly opposed ¹⁰¹ to Marchettus's advocacy of three types of semitones, and it was in this context that Gaffurius used his name to uphold his own opposition to Marchettus on this

98 Op. cit., I, 30.

⁹⁹ Lib. V, cap 6. His first acknowledgment of Tinctoris as the source comes in the *Practica musicae* MS of 1487, fol. 6^r.

100 Cremascoli, op. cit., p. 66.

101 See CS, IV, 328.

⁹⁷ Op. cit., p. 215. Gaspari lists the MS as having forty folios, but only the first twenty belong to the treatise. Despite its Latin title the entire work is in the vernacular.

point.¹⁰² Since the first record of Gallicus in Gaffurius's writings occurs in the *Theoricum musicae* of 1480, it seems clear that his influence on Gaffurius came at a later date than that of Ugolino of Orvieto.

The Micrologus vulgaris cantus plani, consisting of twenty folios, is followed by twenty more folios which are textually unrelated to it but form the second part of the complete manuscript. This part is written by several scribes, partly in Italian and partly in Latin, and treats various aspects of mensural music in a series of highly condensed definitions. The one exception to this procedure is a section entitled Capitolo della ligature,¹⁰³ which proves to be a vernacular source of the chapter on ligatures in the Practica musicae of 1496.¹⁰⁴ This is further evidence of the date of the manuscript, for Gaffurius is known to have begun the Practica musicae around 1481 while at Monticelli.¹⁰⁵ It is also the earliest existing manuscript source which can be directly connected with the Practica musicae of 1496, since it antedates by approximately five years the manuscript copy of the treatise.

In 1487 the Carmelite friar Alexander Assolari made a copy of the *Practica musicae* that Gaffurius supposedly had completed in 1483.¹⁰⁶ Although the friar's manuscript contains over a hundred folios, only the first twenty of these relate to the *Practica*,¹⁰⁷ and constitute a version of Book I which, as previously mentioned, was itself considerably altered by the time of its imprint in 1496. Not only are the other three books of *Practica musicae* missing from the manuscript, but the *Tractatus pratica-bilium proportionum*, which became Book IV of the *Practica*, was written as an independent treatise during the same period of time in which the *Practica musicae* has been thought to have been completed. From this and from the many differences between the manuscripts of Book I and Book IV and their appearance in the printed version, it is apparent that the final state of Gaffurius's treatise on practical music was the result of many years of growth and development on the part of the author. It is necessary to take literally Meleguli's statement that when Gaffurius lived

102 Fol. 4^v. In the earlier *Extractus parvus musicae* Gaffurius had simply copied Marchettus's statement on semitones.

103 Fols. 21^v-24^r.

104 P. 78. In many places the Italian texts of the MS and the Latin counterpart in the printed version are identical except for inherent differences in the languages.

105 Cremascoli, op. cit., p. 67.

¹⁰⁶ Ibid., p. 69.

107 The remainder consists of excerpts from various medieval treatises, a short work by friar Alexander, and several motets in black notation.

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at Monticelli "he began to write the Practica" (practicam scribere occepit).

The preceding five treatises, written between ca. 1474 and 1487, have considerable value as source material for the formative years of Gaffurius's musical career. Although the first two manuscripts, written for clerics of Lodi, exhibit little originality, they already point to a significant characteristic of Gaffurius, his assiduous search for and study of early and contemporary treatises on music.¹⁰⁸ They also show the dominant role of Ugolino of Orvieto and Marchettus of Padua in the development of his musical concepts. The glosses from the treatise by Dufay point to a connection between him and Gaffurius on theoretical as well as musical grounds.¹⁰⁹

The treatise on proportions shows the effect on Gaffurius of his stay in Naples. The influence of Tinctoris and other musicians with whom he came in contact must have been a decisive factor, for he published his *Theoricum musicae* while in Naples and began the *Practica musicae* shortly thereafter. But his comments on Gaspar and Martini are a distinct surprise, since they indicate an early and hitherto unknown connection with these composers, who were working in Milan. Gaffurius must have become acquainted with the two men, or at least with their compositions, prior to his trip to Naples in 1478. The many other composers and their works named in this treatise reveal that Gaffurius had acquired a wide knowledge of the music of his contemporaries and his immediate predecessors. A number of the compositions he mentions are unrecorded in other sources known at present.

Although the *Micrologus vulgaris cantus plani* is a minor work, it represents Gaffurius's first treatise in the vernacular, antedating by more than a quarter of a century his only other Italian work, the *Anglicum ac divinum opus musicae* of 1508.¹¹⁰ It was typical of Gaffurius to write the

¹⁰⁸ In addition to theorists already mentioned Gaffurius copied or had copied works by Boethius, Bacchius, Bryennius, Aristides Quintilianus, Anselmi, Franco, and Prosdocimus. In 1499, three years after publishing his *Practica musicae*, he wrote a *Glossemata* on the *Ars novae musicae* of Johannes de Muris.

¹⁰⁹ Gaffurius was well acquainted with Dufay's music. This is shown by his comments on Dufay in the *Practica musicae* and in the use of a Dufay composition as model for his own *Missa Trombetta*. See *Archivium musices metropolitanum Mediolense*, II, vi.

¹¹⁰ In 1493 his pupil Francesco Caza published, with Gaffurius's approval, a *Trac*tato vulgare del canto figurato. Although this work is a translation and condensation of Book II of *Practica musicae*, Gaffurius writes in the preface of Caza's treatise that its source was a Latin compendium he (Gaffurius) had written some years earlier. This statement is further proof that the four books which comprise the *Practica musi-* titles of both treatises in Latin — apparently this gave them greater weight and respectability. In his prefatory remarks in the *Angelicum* he apologizes for the use of the vernacular, citing among other reasons the "molti illiterati" in the music profession.

The last of the five treatises, the *Practica musicae* manuscript of 1487, demonstrates by comparison with its 1496 imprint how much in the latter Gaffurius had advanced as a writer and musician. Although the manuscript contains only Book I of the printed version, even this is considerably changed in style and content in the imprint. The former reads like a late medieval treatise; the latter shows the many humanistic influences that Gaffurius absorbed after arriving in Milan in 1484. The authorities quoted in the two versions vary considerably, the many allusions to new writers in the imprint revealing the scope of Gaffurius's broadened knowledge. Above all, the interrelationship of Ambrosian and Roman rites in the printed edition, material that is completely lacking in the manuscript, attests to the change that Gaffurius underwent as a result of his appointment as choirmaster of Milan cathedral, a post he retained for the remainder of his life.¹¹¹

APPENDIX I

Sources of Extractus parvus musicae (ca. 1474)

Ars = Ars discantus (Johannes de Muris) Lib = Libellus cantus mensurabilis (Johannes de Muris) Num = De numeris (Johannes de Muris) Dec = Declaratio musicae disciplinae (Ugolino of Orvieto) Brev = Brevis compilatio (Marchettus of Padua) Luc = Lucidarium (Marchettus of Padua) Sen = Sententiae de musica (Isidore)

Folio	Tractatus	Sources
1 r	I De excellentia musice	Dec V, Proemium
3r	II De sono	Dec V, 1-3
5'	III De elementis musice	Dec I, 4-6

cae imprint of 1496 were originally separate treatises. For Caza's book see op. cit., ed. Johannes Wolf (Berlin, 1922).

¹¹¹ Gaffurius's kinship with the Ambrosian rite is seen in the many references in the *Practica musicae* of 1496 to "we Ambrosians" and "our own Ambrosian rite." These comments occur mostly in Book I on plainsong. His famous remark about the Ambrosian practice of singing parts of the Requiem Mass in seconds and fourths against a plainsong melody is found in Book III on counterpoint.

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Early Gaffuriana: New Answers to Old Questions

6 *	IV	De dispositione	
		latine manus	Dec I, 8-11
9°	v	De proprietatibus	
		musice	Dec I, 13-16
10 [•]	VI	De difinitione musice	Luc I, 1-6, 8-16; II, 3-8; Sen II, III, VI
12 ^v	VII	De distincione	
		consonantiae	Luc V, 1-6; Dec I, 20-44
16 ^r	VIII	De musica plana	Luc XI, 1-4; XII, 2; XIII, 8, 9; XIV
19 ^r	IX	De contrapuncto	
21*	X	De arte discantus	Ars IV
23 *	XI	De prolationibus et	
		figuris	Lib I, 6; II, III, VI, VII, IX, X;
			Dec II, 6; III, 7, 8
27 *	XII	De proportionibus; de	
		cantu mensurato	Dec IV, 4-27; Brev

APPENDIX II

Extracts from Dufay's Musica in glosses of the Extractus parvus musice and the Tractatus brevis cantus plani.

1. Extractus parvus, folio 26^v:

Dicit autem Guilielmus Dufay in sua *Musica* quod punctus musicalis est quadruplex, scilicet, perfectionis, divisionis, alterationis et transportationis seu transformationis.

Punctus alterationis est qui additus cuique note eam augmentat de tertia parte. Dicitur autem alterationis ad differentiam perfectionis, quia illa dicitur alteratio per quam valor notule ultra sui proprietatem mediante puncto augetur, ut hic:

Punctus divisionis est ille qui positus inter duas notulas, earum valorem non crescit nec minuit, sed ipsas dividit, demonstrando quod utraque illarum numeratur divisim cum ceteris notulis sibi propinquis, ut hic: $\blacksquare \diamondsuit \blacksquare$

Punctus perfectionis est ille quod additus alicui notule valenti recipere imperfectionem ipsam notulam in sua perfectione remanere facit, ut hic: $\mathbf{H} \cdot \mathbf{H} \cdot$

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2. Extractus parvus, folio 27':

Gu. Dufay: Pausa est vocum submissio seu aspiratio mensurata pro tot temporibus quot occupat spatia. Pause non possunt imperfici nec alterari.

3. Tractatus brevis, folio 56':

Ait nam Guilielmus Dufay in sua *Musica* quod \ddagger quadrum est quedam perfectio conferens suam perfectionem naturali perfectioni, et sicut perfectioni perfectio datur substantivo illarum quatuor in homine, sic in \ddagger quadro ea datur perfectio, quoniam illarum sex vocum \ddagger quadrum ipsius est modulatio per naturam naturatam.

Natura est quoddam ens continens in se illas neumas, vel conferens suam perfectionem suis totalibus partibus et ideo neume ille dantur in naturam ex proprietate, et non dicitur natura causa essentie rei sed causa destinationis et sic dicitur natura in musica.

b molle est quedam armonia continens in se illas neumas non ipsius proprietatis ex se sed ex nature naturate virtute productas, quoniam neume ille per se ipsas proferri non possunt nec modulari nisi per substantivum nature naturate, et sic dicitur bmolle in musica.

Principia harum proprietatum consistunt in tribus litteris, scilicet, G, C, et F, et sciendum est quod iste littere non habent vim super istas proprietates sed ponuntur in istis per signo, eodem modo quo ponitur aliquod signum in ostensione alicuius rei.

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