The Martini-Redi Polemic on the Solution of a Canon by Giovanni Animuccia¹

Denis Collins

One of the most respected figures in eighteenth-century musical circles, Padre Giovanni Battista Martini maintained a large correspondence with contemporary musicians on a wide range of musical subjects. Some of this correspondence was of a polemical nature, as in the case of a series of letters concerning his solution of a canon by the sixteenth-century composer, Giovanni Animuccia. This controversy was initiated by Tommaso Redi, *maestro di capella* at the Cappella Lauretana in Loreto. In a letter dated October 7, 1732 to Giacinto Roffi, organist at San Giacomo in Bologna, Redi suggested an alternative solution to the Animuccia canon than the one found by Martini on September 29, 1732. Both solutions were considered by a number of musicians throughout Italy before Martini wrote a long,

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scholarly defense of his solution which closed the question.²

The Animuccia canon is found in an oil painting by an anonymous artist in the Cappella Lauretana in Loreto. The painting (shown in Figure 1) depicts the Virgin Mary surrounded by several angels and a

Figure 1. Anonymous oil painting, Cappella Lauretana, Loreto



²The entire surviving contents of the correspondence are contained in Giambattista Martini, *Carteggio inedito* (Bologna: n.p., 1888; reprint, Bologna: Forni, 1969), 3-68. For biographical details on Redi, see *Dizionario della musica e dei musicisti*, s.v. "Redi, Tommaso," by Carolyn Gianturco.

kneeling man. The canon, whose text is addressed to Mary, is notated at the bottom of the picture. It contains three parts of which two (marked *Canon* and *Quinquae*) have *signa congruentiae* indicating that canonic imitation should take place. Above the canon is a coat of arms which contains three accidental signs, the diesis \sharp , square \sharp , and soft \flat .

The appearance of pieces of music, particularly canons, in Renaissance paintings has been studied by many musicologists who have noted that the canons are often deliberately enigmatic and quite difficult to solve.⁴ Indeed, the Animuccia canon was regarded as particularly difficult to solve before Martini proposed his solution.⁵ In Martini's solution (see Appendix, Example 1), the first two parts given in the painting are treated in canon at the octave below, giving a double canon. The third notated part (*quintus*) is treated as a fifth non-canonic part by Martini.⁶

In his letter to Roffi, Redi objects to Martini allowing one voice to sing the entire quintus part as this part is notated with two clefs: the alto clef for approximately the first third of the piece, followed by the bass clef for the remainder of the piece. In Redi's solution (see Appendix, Example 2), the quintus is presented entirely in the bass

³The banner text may be translated as follows: "Beneath thy protection we seek refuge: O Mother of God, despise not our supplications in our times of distress, but from all perils deliver us, O ever glorious and blessed Virgin." The text of the canon may be translated as "Holy Mary, pray for us."

⁴See particularly H. Colin Slim, "Dosso Dossi's Allegory at Florence about Music," *Journal of the American Musicological Society* 43, no. 1 (1990): 43-98; Edward E. Lowinsky, "Music in Titian's *Bacchanal of the Andrians*: Origin and History of the *Canon per tonos*," in *Music in the Culture of the Renaissance and Other Essays*, vol. 2, ed. Bonnie J. Blackburn, with forewords by Howard Mayer Brown and Ellen T. Harris (Chicago: University of Chicago Press, 1989), 289-350. The essay originally appeared in *Titian: His World and His Legacy*, ed. David Rosand, Bampton Lectures in America 21 (New York: Columbia University Press, 1982), 191-282.

⁵A reference is made by Martini to the difficulties experienced by musicians in solving this canon; see *Carteggio inedito*, 56.

⁶Ibid., 6-7.

clef. For the first seven measures, the quintus is in canon with the alto at the octave below. The first tenor meanwhile sings the opening material originally assigned by Animuccia to the quintus. At m. 7—the point where Animuccia begins to notate the quintus using the bass clef—Redi exchanges the quintus and first tenor parts so that the remainder of his solution is the same as Martini's (that is, the quintus is free and the tenor parts are in canon at the octave below with the two upper parts). Redi also suggests an improvement to Animuccia's canon: at m. 8 the alto enters on the word "Sancta"; Redi increases the semibreve note value by an extra half note apparently for no other reason than his dislike of the alto forming an interval of a fifth with the soprano entering at this point (compare m. 8 of Examples 1 and 2).

Martini's initial reaction to Redi's alternative solution was to write to Redi requesting information on the coat of arms accompanying the Animuccia canon. Redi replied to this request in two letters. In the first, dated October 25, 1732,8 he states that the coat of arms was originally devised by St. Philip Neri (with whom Animuccia was closely associated in Rome), not only to indicate St. Philip's interest in music, but also to allude to Christian morality. The \$\psi\$ sign represents the path of moral correctness, the \$\psi\$ represents anything that would disturb or anger the emotions, while the \$\psi\$ sign serves as a moderator of the disturbed emotions.9 In a second letter dated February 26, 1732, 10 Redi states that he has received support for his resolution from musicians in Spain and Rome (whom he does not name). His second explanation of the coat of arms may be quoted in full:

The coat of arms is a demonstration of what pertains to a

⁷Ibid., 8-9.

⁸Ibid., 12-13.

^{9&}quot;... la strada piena de divini Comandamenti significata per il \$\,\$ e se a caso incontriamo alcuno di quelli oggetti, che han forza d'alterarci le passioni, il che vien significato per il \$\,\$, ci percotiamo flebili il petto, che denota il \$\,\$ finchè ottenendo la moderazione delle passioni sconvolte. . . ." Ibid., 12.

¹⁰Ibid., 28-30.

properly expressive, sweet, and harmonious composition. [Animuccia] has indicated the \sharp , \natural , and \flat signs so that one expects that he has controlled excellently his composition in the diatonic genus (fundamental to harmonic composition) and in the chromatic genus to express the text and render the harmony devout and pleasant. The diatonic is fundamental, the chromatic is accidental. He has put the \sharp sign far from the \flat sign like two hostile cities; in the middle he has put the mediator \natural sign which is at peace with both, serving as a \flat or \sharp sign according to its position. He does not address the enharmonic genus because it is rarely used.¹¹

Redi's distinction between the \sharp and \flat signs as opposing forces with the \sharp sign as mediator recalls his earlier categorization of these signs on religious grounds. Stating that the natural sign may be employed to raise or lower a note depending on its position is correct in the context of contemporary practice (for instance, the note $B \flat$ may become B or $C \sharp$ may become $B \flat$.

The two solutions of the Animuccia canon were viewed by a number of musicians in October and November of 1732, all of whom endorsed Martini's solution. Giuseppe Ottavio Pitoni considered Redi's solution to be a botch ("un pasticcio"). Antonio Maria Pacchioni criticizes the exchange of parts at m. 7 in Redi's solution. Giuseppe

^{11&}quot;'L'Arma è una dimostrazione di quanto appartiene ad una propria espressiva, vaga, e armonica Composizione; ha segnato # \$\beta\$ acci\u00f3 si preveda, che egli ha regolato ottimamente la sua Composizione nel genere diatonico fondamento di essa, e nel Cromatico per esprimere la parola, e rendere devota e grata l'armonia; il Diatonico è fondamentale, il Cromatico è accidentale; ha posto il # lontano dal b come [due] inimici capitali, nel mezzo ha posto il mediatore \$\beta\$ il quale ha pace con ambedue, servendo per b o per \$\beta\$ secondo la sua posizione. Del genere enarmonico non parla, perchè non si pratica molto anzi rarissimamente." Ibid., 30.

¹²Ibid., 11-12.

^{13&}quot;... salta d'una parte in un'altra, cosa da me non mai veduta..." ("... one part leaps into another [part], something never seen by me...") Ibid., 26.

Tartini also considers Martini's solution to be superior.¹⁴ Francesco Antonio Calegari suggests another solution similar to Martini's whereby the opening measures of the quintus are transposed down an octave for performance entirely by a bass part.¹⁵ Calegari suggests that Animuccia notated the quintus in two clefs as a witticism or personal joke. Apart from a polite acknowledgement of this suggestion, Martini does not appear to have responded in detail to Calegari's solution.¹⁶

Between March and October, 1733, Martini's defense of his solution appeared in three letters, two of which are addressed to Redi and one to Pitoni. The first and shortest of these letters is addressed to Redi and considers the significance of the coat of arms accompanying the canon.¹⁷ Martini states that Redi cannot explain the coat of arms according to musica umana (that is, the first of Redi's explanations) as that subject is defined by Aristotle as that "which speculates about the proportions of the body and soul and of these parts among themselves." The coat of arms should instead be considered in the context of musica armonica mensurata ("measured harmonic music"). Martini believes that the three accidental signs pertain to the diatonic, chromatic, and enharmonic genera which were the subject of much debate among Animuccia's contemporaries. Martini does not explore this issue further in this letter, preferring to return to it in detail in the second letter, addressed to Pitoni, in which Redi's solution is examined in great detail.

The letter to Pitoni¹⁹ focuses on three issues: Redi's objection to one singer performing the entire quintus part; the term "canon" as

¹⁴Ibid., 54.

¹⁵Ibid., 13-25.

¹⁶Ibid., 26.

¹⁷Ibid., 32-34. The letter is dated March 11, 1733.

^{18&}quot;Quae de proportionibus Corporis et Animae et harum inter se partium considerat.

. ." Ibid., 33. The quotation is from an unnamed work of Aristotle.

¹⁹Ibid., 35-51. The letter is dated March 18, 1733.

understood by musicians since the sixteenth century; and a consideration of the significance of the coat of arms accompanying Animuccia's canon.

To support his belief that one singer can perform a part involving the range of a fifteenth (the range of the quintus part), Martini quotes from several theoretical sources mainly from antiquity, for instance, Aristides Quintilianus, Cleonides, Aristoxenus, and the later writer, Manuel Bryennius.²⁰ Martini refers to the Meibom and Wallis editions of ancient sources. These writers discuss fifteen steps in the harmonic system and allow further extensions upwards. Two of these references to ancient sources may be given here to illustrate Martini's argument, that is, from Cleonides' *Introduction to Harmonics* and Aristoxenus' *Harmonic Elements*, respectively:

The position of a voice can be increased by an eighth harmonic system, that is, by adding two [types of extension], namely, double-octave and fourth, and double-octave and fifth.

Neither, however, does Aristoxenus deny that the position of a voice can be extended even a triple or quadruple octave, if more [ranges] are combined: consider, if the shrillest voice of boys or women is combined with the deepest voice of men, etc.²¹

Martini claims that these sources support his position that one voice can sing successively two different parts whose combined ranges form a fifteenth such as is found in the *quintus* of the Animuccia canon. Martini also refers to compositions by Banchieri, Viadana, Fattorini, Hermann Finck, Nanino, Festa, and Soriano in which parts spanning

²⁰Ibid., 39-42.

²¹"Vocus autem locus augeri potest ad octavum usque systema consonum, quod est, adiectis duobus; nimirum Bis-dia-pason et Dia-tessaron, et Bis-dia-pason et Dia-pente. . . . Nec tamen negat Aristoxenus, pag. 21 etiam Ter, aut Quater-dia-pason, aut etiam ultra, extendi posse vocis locum, si plura comparentur: puta, si vox Puerorum aut Feminarum acutissima, cum Virorum gravissima, comparetur etc." Ibid., 41. Martini takes both quotations from Meibom.

the range of a fifteenth may be found. Well-trained singers, Martini observes, have always been able to sing in the range of a fifteenth.

Martini next turns to the definition of the term "canon" to see if Redi's solution is consistent with the proper application of canonic technique. He chooses the definition from Silverio Picerli's *Specchio secondo di musica* (1631) which is as follows:

Canon means "rule" because these compositions one makes usually with such rules and conditions that all the first part of it sings, all the other parts sing also (except for a few notes at the end) from beginning to end.²²

This definition, Martini continues, is considered valid by all musicians skilled in both theory and practice. The essential point is that the imitation between the parts is maintained from beginning to end of the composition. However, in Redi's solution, two of the parts are exchanged in m. 7 (as we have already seen). This contradicts the above definition of canon and is therefore, Martini concludes, a serious error in Redi's solution. Martini does not consider another odd feature of Redi's solution, namely, that the tenor voices also switch parts at m. 7 (that is, the second tenor begins in canon with the soprano, but at m. 7 it continues in canon with the alto).

Martini next singles out a passage from Redi's letter to Roffi in which Redi states that the presence of a free fifth part (the quintus) is unusual in a canon. This point is dismissed by Martini who states that many composers include free parts in their canons. Martini is also dismissive of Redi's alteration at m. 8 (which we have noted earlier), saying that Redi shows no such scruple about having two voices begin an interval of a fifth apart in his own compositions.²³

²²"Il Canone vuol dir Regola perchè le dette Composizioni si fanno communemente con regole, et osservazioni tali, che tutto quello dice la prima parte di esse dicono anche tutte l'altre (eccetto alcune poche note nel fine) da principio sino al fine." Silverio Picerli, *Specchio secondo di musica* (Naples: M. Nucci, 1631), chap. 16, 126.

²³"Io non vedo che egli nelle sue Composizioni sia stato rigoroso," *Carteggio inedito*, 46.

The final portion of Martini's letter to Pitoni is concerned with the significance of the coat of arms.²⁴ He rejects Redi's second explanation, saying that he must be ignorant of past debates on the three genera. Martini lists numerous sixteenth-century figures involved in these debates: Zarlino, Galilei, Vicentino, Lusitano, Salinas, Foliano, Artusi, Bottrigari, Meloni, Sigonio, and Colonna. From his study of these writers, Martini attacks Redi in the following passage:

How the \$\\$ sign could have peace with the \$\\$ and \$\beta\$ signs, serving as one or the other, I do not understand. I understand clearly that the \$\\$ sign was instituted solely to displace and raise the \$\beta\$ sign of B fa (although one employs it as one wishes), but I do not know how it can have peace each time it raises and displaces one of the other two signs. As, for instance, Prosdocimus de Beldemandis of Padua in the manuscript on counterpoint: "It must be understood that these two signs (that is, \$\beta\$ and \$\\$) are completely opposed, and therefore operate in a totally opposed manner." 25

Martini bases his argument on an older application of these signs whereby the sign is used to indicate the syllable mi at B (although he is also aware that it may be used as a sign of mi also at places other than B). According to Redi, the \natural sign can serve as a \flat or a \sharp only in completely modern usage by serving as a \sharp in relation to a \flat , and vice versa. The transition between these two usages occurred during the

²⁴Ibid., 46-50.

²⁵ 'Come poscia il \ abbia pace con il \ e \ b . servendo per l'uno e per l'altro, nol sò capire; sò bene che il \ fu instituito solamente per distruggere e levare il \ b . a B. fa, (benchè si adopri come pare e piace) ma non sò come possi aver pace ogni qual volta leva e distrugge uno degl'altri due, che però dice:—Prosdocimus de Beldemandis de Padua in MS. de Contrap. *Item. sciendum, quod haec duo signa* (cioè \ b . e \ fu.) *sunt signa totaliter opposita, eo quod modo opposito totaliter operantur*.' Ibid., 48. Prosdocimo de Beldomandi, *Contrapuctus*, text and trans. Jan W. Herlinger, Greek and Latin Music Theory I (Lincoln and London: University of Nebraska Press, 1984), 76. The above translation is my own.

sixteenth century.²⁶

An explanation of the coat of arms from the point of view of its relevance to the notation of the canon is proposed by Martini. The three signs pertain to what he calls the three properties of song. The first of these is the b sign which, in the signature of the Animuccia canon. indicates that the note F is sung with the syllable ut, in other words, it indicates the soft hexachord. However, at certain places in the composition, we see the \$\\$ sign used at B fa B mi. This means that the note G should be sung with the syllable ut and indicates another property of song, namely the hard hexachord. Furthermore, the # sign appears at several points during the composition, particularly at the notes C and F. This sign makes an imperfect consonance more perfect and is appropriately used when the imperfect consonance proceeds to a perfect consonance (for instance, at a cadence, the interval E-C becomes E-C# and proceeds to D-D'). Martini refers to Prosdocimus who says that this procedure leads to sweeter sounding harmony. Thus, Martini says, the canon uses each of the three signs in the coat of arms. There remains the final property of song, the natural hexachord with C as ut. This will occur if the canon is transposed up a fourth; in this case, the minor third G-B b will become a major third C-E.

Martini then considers how the canon can be sung in three different ways, each employing only one of the three signs. It can be sung entirely with the \sharp sign in the signature if it is transposed up a fifth. This will involve *musica ficta* as the \sharp sign lies outside the realm of *musica vera*. The canon can be sung entirely according to the \sharp sign if it is left as notated by Animuccia, but with nothing in the signature. This will involve the syllable mi at B fa B mi. The canon can be sung entirely according to the \flat sign if it is left as notated by Animuccia, but with no use of the \sharp sign at B fa B mi.

Martini's third letter, addressed to Redi, discusses errors in the

²⁶See Karol Berger, Musica ficta: Theories of Accidental Inflections in Vocal Polyphony from Marchetto da Padova to Gioseffo Zarlino (Cambridge and New York: Cambridge University Press, 1987), 20-29.

latter's reasoning on the solution of the Animuccia canon.²⁷ Martini quotes extensively from Redi's letter to Roffi (which started the polemic) and from Redi's letter to Martini dated February 26, 1733 (which contained Redi's second explanation of the coat of arms). Martini focuses on Redi's statement in his first letter that he is a student of canon to such an extent that he can claim modestly of "not ever being cured of this troublesome study" ("di non essersi mai curato di tali studi noiosi").²⁸ Martini dwells on the fact that although many musicians have studied the Animuccia canon without finding its resolution, Redi not only thinks that he has solved the canon but can improve it by altering it at m. 8. Martini's words are quite acerbic:

It is not understood how a man, who not knowing anything about canons, assumes himself to have the courage to correct a canon, and a canon by Animuccia.²⁹

Martini next mentions a letter from the Roman composer Girolamo Chiti to Redi which seems to support Redi's solution. The original letter has apparently not survived, although Martini quotes the following passage from it:

I add for his consolation, greater reputation and defense, a kind occurring to my mind and furthermore approved of by the oracle [i.e., wisdom] of Mr. Pitoni. And it is this, that, as I have stated above, in defending oneself, in order to maintain one's own honor and to admit partially the truth of the matter, one can secure for oneself a fair merit and admiration much more by demonstrating that in the resolution of the canon done by Your Lordship you have labored more and done greater

²⁷Carteggio inedito, 54-64.

²⁸Ibid., 55.

²⁹"E non sa capire, come si trovi un'Uomo, il quale, non sapendo nulla di Canoni, abbia potuta aver il coraggio di correggere un Canone, e un Canone dell'Animuccia." Ibid., 57.

thinking by making canonic, although not totally, that fifth part, which was not a canon[ic part] but a bass. Thus, you merit all praise, and it is a thought to be borne in mind and admired, without faulting the lively reasonings that support the Rev. Maestro Martini.³⁰

Martini argues that although Chiti appears to be supporting Redi, certain sentences suggest otherwise: "... to maintain one's own honor and to admit partially the truth of the matter... by demonstrating that in the resolution of the canon done by Your Lordship you have labored more... without faulting the lively reasonings that support Rev. Maestro Martini."

Martini moves on to quote another sentence from Redi's letter to Roffi: "I long for my rest" ("io bramo la mia quiete"). If this is how Redi feels, Martini continues dryly, then why did he enter into a controversy over the resolution of the Animuccia canon? Why also did Redi solicit support from other musicians in Spain and Italy? Martini dismisses the value of such support: "But I say to you that it is not greyness of hair that makes a Professor excellent, but knowledge." Despite his younger age, Martini believes that he has studied enough to take an educated view of the problems involved in resolving the Animuccia canon, despite differing opinions from Spain and Rome. He concludes the letter by stating that past controversies were not always

³⁰"Soggiungo per sua consolazione, maggior riputazione, e difesa, una specie venutami in testa, ed approvata poi dall" Oracolo del Sig. Pitoni; ed è, che nello schermirsi, come ho detto di sopra; anzi di più, per mantenere il suo onore, e concedere alla Parte la Verità del fatto, può farsi un giusto merito, e più degno d'ammirazione, nel far vedere, che nello scioglimento del Canone fatto da V.S. . . . ci hà travagliato di più, e fatta maggior riflessione, obbligando a Canone, benchè non totalmente, quella Quinta Parte, che non era Canone, ma Base. Onde merita tutta la lode, e riflessione da esser considerata, et ammirata, senza far torto all vive ragioni, che militano per il P. Maestro Martini." Ibid., 59.

³¹Ibid., 61.

³²"Ma io a Lui dico che non è la canizie del crine, la quale renda eccellente un Professore, ma la Scienza. . . ." Ibid., 62.

settled by the age of the participants, but by reason.

Redi's response to Martini, the final letter in the polemic, is a formal acknowledgement of Martini's position and an expression of regret for having upset him so much.³³ Redi does not concede defeat, but says that he did not tell Martini about further support for his solution he received from Roman musicians. He does not elaborate on who provided this support or what was the reasoning behind it. Perhaps Redi is implying that musicians in Rome would be more familiar with the works of Animuccia, a Roman composer, and would therefore be the most qualified to judge the correct resolution.

The Martini-Redi polemic indicates that canon was still a subject of considerable interest to many musicians in the early- and mid-eighteenth century. Redi's solution of the canon is less convincing than Martini's because of its exchange of parts in m. 7, something which is never seen in canonic composition. Martini's interpretation of the coat of arms is also more persuasive than Redi's. The very impressive command of a vast amount of theoretical literature shown by Martini enabled him to defend his position with authority—something which Redi was unable to counter successfully.

³³Ibid., 66-67. The letter is undated.

Appendix

Example 1. Martini's solution



Example 2. Redi's solution



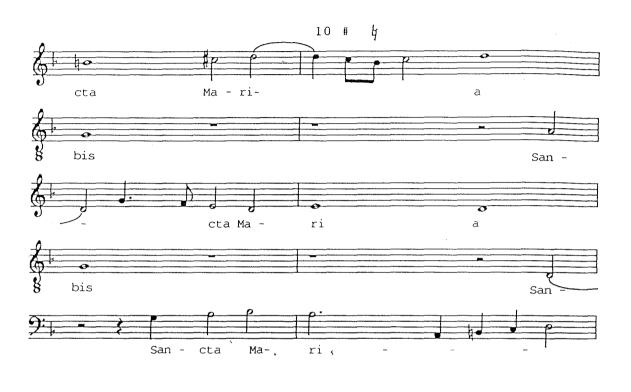
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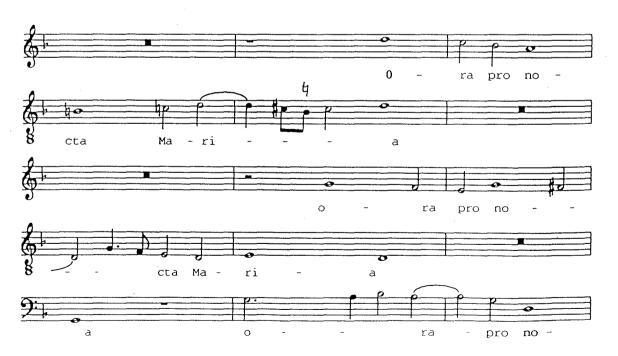


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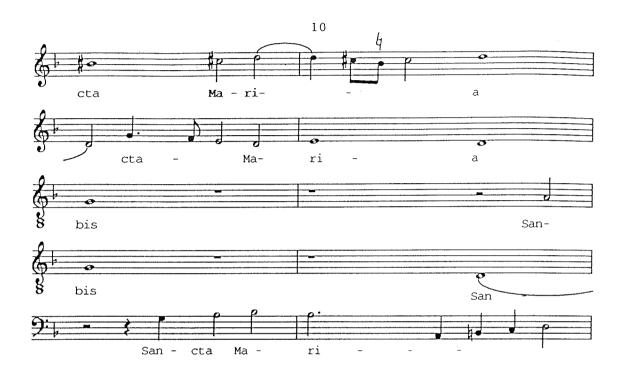


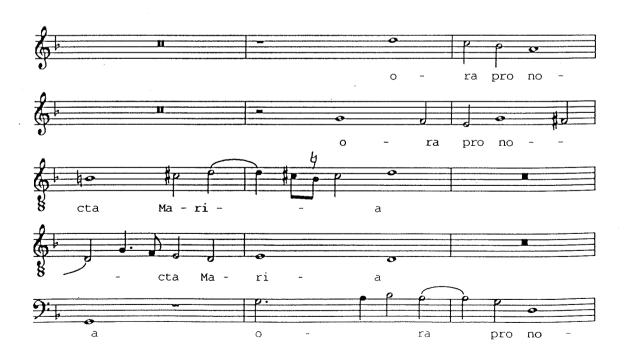
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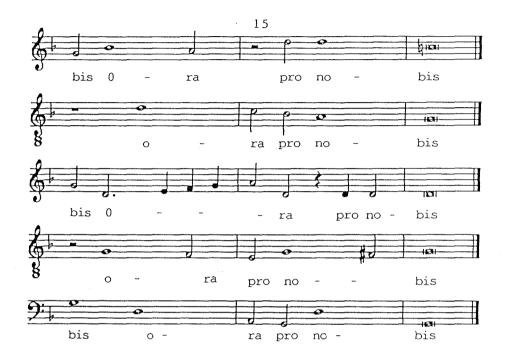


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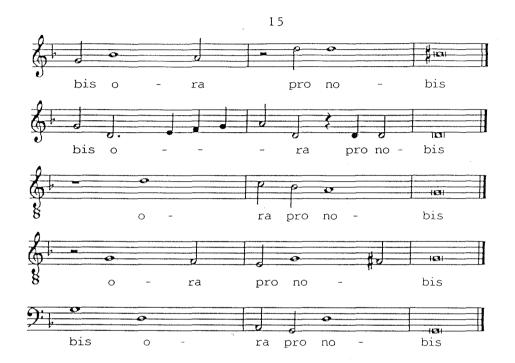




Example 1. (continued)



Example 2. (continued)



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