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CANONIC CONUNDRUMS: THE SINGER'S PETRUCCI

by BONNIE J. BLACKBURN

When Petrucci undertook to perfect the art of printing polyphonic music, he must have been convinced that there was a market for easily portable and relatively inexpensive books of music. But what purchasers did he have in mind? Professional singers at cathedrals and courts? Amateurs? A study of the compositions containing canons has led me to the conclusion that his intended buyers in the first place must have been non-professional singers, because the music has been edited to fit their needs. Whereas professionals normally had no need of resolutions of canons (though they can often be found in cathedral manuscripts, especially those copied in the sixteenth century), Petrucci – or more likely his editor, Petrus Castellanus – realized that amateurs would require more help.¹ This is especially true in the case of canons with enigmatic inscriptions, as opposed to imitation canons, those drawing two or more voices forth from a single written part.

The following MS sigla are used:

Basel F.IX.25	Basel, Öffentliche Bibliothek der Universität, MS F.IX.25
Bologna A. XXXI	Bologna, Archivio Musicale della Fabbriceria di San Petronio, MS A. XXXI
Bologna Q 17	Bologna, Civico Museo Bibliografico Musicale, MS Q 17
Brussels 9126	Brussels, Bibliothèque royale de Belgique, MS 9126
CG XIII, 27	Vatican City, Biblioteca Apostolica Vaticana, Cappella Giulia MS XIII, 27
CS	Vatican City, Biblioteca Apostolica Vaticana, Cappella Sistina
Florence 178	Florence, Biblioteca Nazionale Centrale, MS Magliabecchi XIX.178
Florence 229	Florence, Biblioteca Nazionale Centrale, MS Banco Rari 229
Florence 2439	Florence, Biblioteca del Conservatorio di Musica „Luigi Cherubini“, MS Basevi 2439
Leipzig 51	Leipzig, Universitätsbibliothek, MS Thomaskirche 51
Milan 2267	Milan, Archivio della Veneranda Fabbrica del Duomo, Sezione Musicale, Librone 3 (<i>olim</i> 2267)
Modena IV	Modena, Duomo, Biblioteca e Archivio Capitolare, MS Mus. IV
Munich 3154	Munich, Bayerische Staatsbibliothek, Musiksammlung, Mus. MS 3154
S. Pietro B 80	Vatican City, Biblioteca Apostolica Vaticana, MS San Pietro B 80
Verona DCCLVII	Verona, Biblioteca Capitolare, MS DCCLVII
Verona DCCLXI	Verona, Biblioteca Capitolare, MS DCCLXI
Vienna 1783	Vienna, Österreichische Nationalbibliothek, Handschriften- und Inkunabelsammlung, MS 1783
Vienna 11778	Vienna, Österreichische Nationalbibliothek, Handschriften- und Inkunabelsammlung, MS 11778
Vienna 18746	Vienna, Österreichische Nationalbibliothek, Musiksammlung, MS Mus. 18746

¹ On Petrus Castellanus and his editorial work, see Bonnie J. Blackburn, „Petrucci's Venetian editor: Petrus Castellanus and his musical garden“, *MD* 49 (1995) 15–45, and „Lorenzo de' Medici, a lost Isaac manuscript, and the Venetian ambassador“, in: Irene Alm, Alyson McLamore, and Colleen Reardon (eds.), *Musica Franca: Essays in honor of Frank A. D'Accone*, Stuyvesant, NY 1996, 19–44. Both articles have been reprinted in Bonnie J. Blackburn, *Composition, printing and performance: Studies in Renaissance music*, Aldershot 2000.

The notion that canons would need resolutions did not occur to Petrucci immediately: the first three anthologies, the *Odhecaton*, *Canti B*, and *Motetti A*, contain several enigmatic canons, and none is resolved. I suspect that singers may have complained that they could not sing these pieces; even if they knew Latin, the composer's desire to express canonic directions obscurely – part of Tinctoris's definition of canon² – must have left them in perplexity. Only beginning with his fourth volume, the first book of Josquin's masses of 1502, did Petrucci start to give resolutions of such canons, while still including the original form. With Josquin's second book of masses, three years later, he gave only the original or only a resolution, often labelled „Resolutio“, but sometimes not. After this book, the compositions with enigmatic canons drop off sharply, since they were rapidly becoming unfashionable. An exception is the third volume of Josquin's masses of 1514, which was obviously an attempt to gather up those masses missed earlier; they do contain canons, but all are imitation canons except is from the *Missa Di dadi*, with its dice indicating proportional augmentation, for which resolutions are provided.

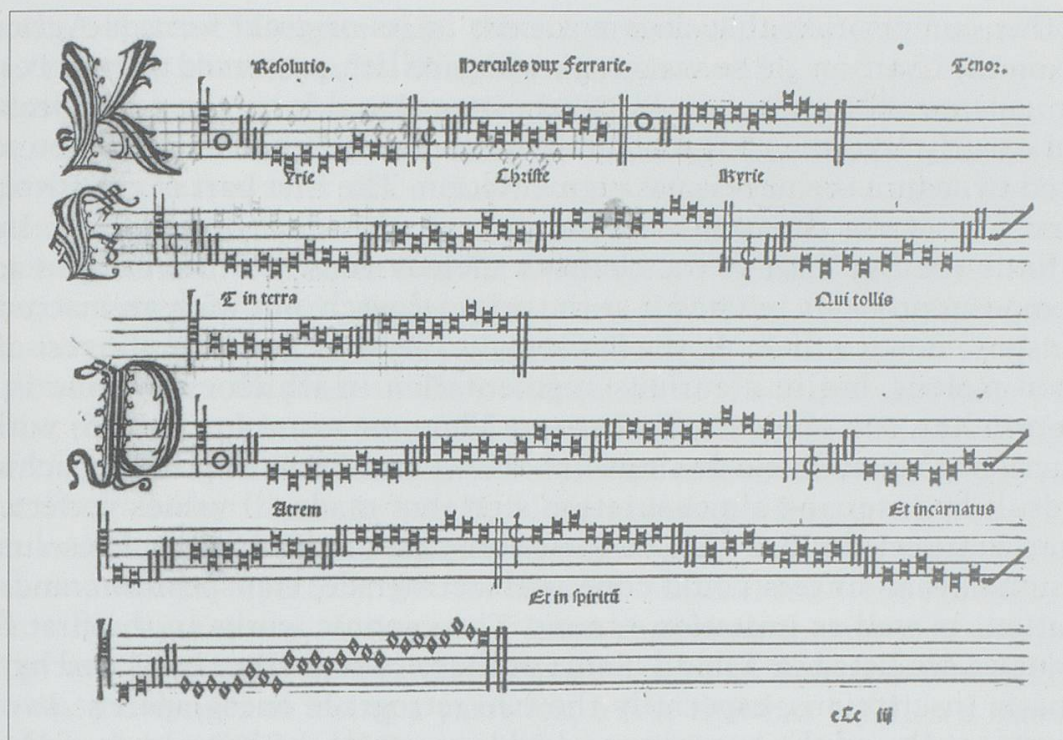
Where Petrucci provides only a resolution, in a number of cases we can recover the original enigmatic inscription or notation from manuscript sources, but some appear to be lost, either in part or altogether. For example, the tenor of Josquin's Hercules mass appears only in resolved form, labelled „Resolutio“ at the top (see Pl. 1). I have posited elsewhere that the original form consisted of no music at all, merely the inscription „Hercules dux Ferrarie“ and instructions for singing the vowels.³ Part of the original form of the canon appears in Milan 2267 (Librone 3).⁴ The canon itself is indeed the phrase „Hercules dux ferarie“, but the instructions are not very helpful: they say „Conceive the vowels by means of the following signs“ or „Mould the vowels to the following signs“ („Fingito vocales: sequentibus signis“). But there are no signs in Milan 2267. The resolution, labelled „Dilucidatio enigmatis“, has only *one* sign at the beginning, showing the resolution of the tenor in the first part of the Gloria. Gaffurius must have transferred the original inscription from the Kyrie – where three signs are needed to ensure the three different pitch levels of the ostinato – to the Gloria. (He did not copy the Kyrie itself because it was not needed in the Ambrosian rite.) Josquin's Hercules mass in Basel F.IX.25 has a similar inscription, which explains the rising pitch levels of the ostinato, but also omits the signs.⁵ But no source known at present depicts the tenor as I believe Josquin notated it.

² „Canon est regula voluntatem compositoris sub obscuritate quadam ostendens“; *Terminorum musicae diffinitorium*, Treviso, c.1495, s.v. „Canon“.

³ In Chapter 4 of Richard Sherr (ed.), *The Josquin companion*, Oxford 2000, „Masses based on popular songs and solmization syllables“, 83–84.

⁴ Fols. 141v–147r. See the facsimile edition with an introduction by Howard Mayer Brown, New York and London 1987 (Renaissance Music in Facsimile 12c).

⁵ „Hercules dux ferrarie / fingito vocales modulis apte“, eight rests on a stave, and then „primo in dsol, secundo in ala, tercio in dla sequentibus signis“. Josquin's „Vive le roy“ in *Canti C* has a similar inscription.



Pl. 1. Tenor of the *Missa Hercules dux Ferrariae*, Kyrie, Gloria, Credo. *Missarum Josquin liber secundus*, Venice, 1505. Photo: Herzog August Bibliothek Wolfenbüttel, 2.8.3. Musica (2), sig. CCciii. Reproduction with the kind permission of the owners.

Pl. 2. Tenor of Agricola's Credo „Je ne vis oncques la pareille. Fragmenta missarum“, Venice, 1505. Photo: Herzog August Bibliothek Wolfenbüttel, 2.8.2. Musica (1), fol. 33. Reproduction with the kind permission of the owners.

Another composition that does not exist in its original form is Agricola's Credo on the chanson „Je ne vis oncques la pareille“, preserved only in Petrucci's *Fragmenta missarum* (see Pl. 2).⁶ In its original form the tenor probably looked exactly like the chanson tenor, but with different mensuration signs inserted to ensure the necessary augmentation. The first part of the Patrem is the first half of the chanson tenor augmented, then repeated *ut iacet*. In the Crucifixus the first half of the chanson melody goes into the bass, *ut iacet*; the composer probably notated it at the original pitch, but with an instruction to transpose down a fifth. At the Et ascendit the tenor takes up the rest of the chanson melody, but in a curious augmentation in which every note is dotted, reminding one of Josquin's chanson *L'homme armé* in *Canti B*, with its instruction „Canon. Et sic de singulis“.⁷ However, Agricola probably achieved this result by inserting a mensuration sign that made all values perfect.⁸

Before Petrucci decided that at least some canons would need resolutions he assumed that singers could cope with retrograde, transposition, and augmentation, as well as imitation canons. The canonic works in the first three anthologies are listed in Table 1. Some of these canons were indicated by very enigmatic inscriptions, especially the two retrograde ones, Japart's „J'ay pris amours“ (no. 6), and the anonymous double canon at the beginning of *Motetti A* (no. 11). On the other hand, this early repertoire contains three imitation canons that are completely written out, with no indication that one voice is canonic. These are Stokem's five-voice „Brunette m'amiette“ (no. 1), Josquin's „Comment peult avoir joye“ (no. 4), and his double canon „Baisez moy“ (no. 7). There is nothing difficult about these canons, and the choirbook format makes it easy to read from another singer's part. This is especially clear in Stokem's piece, where one voice is written directly beneath the other, each on a single line, and it is clear at a glance that they are the same. While the double-canon version of „Baisez moy“ was written out, the triple-canon version notates only three voices (no. 9); layout on the page may have been a concern here. It seems unlikely that Petrucci's editor resolved these particular canons for the ease of singers, because he left other canons unresolved, including two that are *not* straightforward, although the pitch interval is specified. These are Bulkyn's „Or sus, or sus, bovier“ (no. 8) and the anonymous „Avant avant“ (no. 10), both unica, each of which carries the inscription „In subdiatessaron“

⁶ Published in Alexander Agricola, *Opera omnia*, ii, ed. Edward R. Lerner, American Institute of Musicology 1963, 94–102 (*Corpus Mensurabilis Musicae* 22).

⁷ The canon is the dot, notated only after the first note, but meant to apply to all the remaining notes.

⁸ This would be Θ ; the perfect mensuration of the original melody is preserved, since breves are imperfected. This type of mensural transformation is more typical of Ghiselin and Obrecht, raising the question whether this Credo is correctly attributed, especially since Agricola wrote another Credo on „Je ne vis oncques“, preserved under his name in Vienna 1783, fols. 89^v–94^r, and anonymously in CS 41, fols. clxxv^v–clxxx^r (modern edition in *Opera omnia*, ii. 103–7). Where the tenor draws on the chanson the treatment is fairly straightforward, but the rhythm has been altered in a number of spots.

over the superius.⁹ Despite this, the singers would have had a very difficult time resolving these canons, since the time interval is not indicated; experimentation shows that the only solution that will work is to have the canonic voice, the *comes*, enter *first*, a semibreve earlier.¹⁰ In retrospect, the singer might have guessed this since there is no *signum congruentiae*. Or perhaps he was meant to read the text as a clue: „Or sus, or sus, bovier“ means „Get up, get up, cowherd!“ (or, in Randle Cotgrave's French-English dictionary of 1611: „on forward!“) and „Avant, avant“ is „Ahead! ahead!“¹¹ Were singers at the time more attuned to such textual clues than we are today?

Major changes took place in the presentation of the music in Petrucci's next volume, the first volume of Josquin's masses, issued four and a half months after *Motetti A*. This was Petrucci's first volume of mass music and it was printed in partbooks rather than the small oblong choirbook format used for the first three anthologies. Hitherto, manuscript partbooks had been used for secular music and mixed repertory, not for masses: since these were normally sung in churches by a group of singers, a large choirbook format was much more appropriate. Practically speaking, it was also safer to have choirbooks because there was no danger of losing a partbook, a fate that has befallen a number of sets of partbooks.¹² Why did Petrucci change to this format, which he used for all his subsequent publications of motets and masses except *Motetti B*? Large churches were not likely to purchase these volumes, though they might have had the music copied into their choirbooks.¹³ However, partbook format would be very convenient for smaller churches that had only one singer per part, for services at side altars, for processions, and also for rehearsals, which may well have taken place in private rooms, without access to the church's large choirbooks. This may explain, for example, why music that we know was sung in the Papal Chapel does not appear in any of the extant manuscripts.¹⁴ But I think

⁹ Jennifer Bloxam has suggested to me that the layout of the pieces on the page may have been a factor in Petrucci's decision to resolve or not resolve imitation canons. Indeed, by not resolving „Baisez moy a 6“, „Or sus, or sus bovier“, and „Avant avant“ Petrucci could fit the works on a single page.

¹⁰ There are other examples of such canons in the motet repertoire: „Absque mora primum ruit in dyatessaron ymum“ (Tinctoris, *Missa L'homme armé*, Et incarnatus, in CS 35); „Eodem modo preit altera vox in lycanosypathon“ (Vacqueras, *Missa L'homme armé*, Et in terra, in CS 49); „Precedam vos in Galileam“ (Brumel, *Magnificat octavi toni*, Fecit potentiam, in CS 44); „Precedat mea me semper odia proles“ (Anon., „Vexilla regis prodeunt“, in S. Pietro B 80, fol. 1^r).

¹¹ Helen Hewitt, in her edition of *Canti B*, Chicago 1967 (Monuments of Renaissance Music 2), could not find a text for these two pieces. Curiously, she does not remark on the necessity for the *comes* to enter before the *dux*, although she resolves the canons correctly.

¹² For some unexplained reason, it is often the alto or bass that goes missing.

¹³ For example, Josquin's *Missa L'ami Baudichon*, evidently copied from Petrucci into CS 23.

¹⁴ See Richard Sherr, „From the diary of a 16th-century papal singer“, in: *Music and musicians in Renaissance Rome and other courts*, Aldershot 1999, no. IV (originally published in *Current Musicology* 25 (1978), 83–98); see pp. 91–94 for some motets sung in the second half of the sixteenth century but missing from the surviving choirbooks.

Petrucchi also expected amateur singers and even instrumentalists to buy these volumes of masses as well as the earlier anthologies, to say nothing of the frot-tola repertory. We know, for example, that the lutenists Francesco Spinacino and Vincenzo Capirola intabulated masses from Petrucci's books.¹⁵

The preparation of *Misse Josquin* for publication immediately posed a number of problems for the editor, especially since the first mass, the *Missa L'homme armé super voces musicales*, was full of difficult canons. If amateur singers had complained to Petrucci or Petrus that they could not read the canons in the first three anthologies, they would be at sea with this mass. The tenor has to be sung in augmentation throughout, under a different mensuration. In the Gloria and Credo portions of the tenor must be sung retrograde, following the instruction „Cancrizet“. The Benedictus is a series of three two-voice mensuration canons, and the second Agnus a three-voice mensuration canon with three different signs. In the third Agnus the enigmatic inscription directs the singer of the superius to „sing without ceasing“: what does that mean? An amateur singer was certainly entitled to call „Help!“

And so Petrucci did. Underneath the tenor parts he printed a resolution. The resolution is labelled as such, lest the unwary singers attempt to sing both parts. Resolution of the Qui tollis in retrograde shows this is not a simple back-to-front reading: since the mensuration is perfect, alteration and imperfection affect different notes in the retrograde version. And what about the instruction in the superius of the third Agnus to „Sing without ceasing“? Josquin intended that all the rests be omitted, but Petrucci's resolution shows that the editor thought it meant to omit all the breve rests; he left in the minim rests.¹⁶ The resolution also shows that the part is to be sung in double augmentation, something that is not immediately clear from the inscription. Having provided this much help to the singer, Petrucci did not feel it was necessary to resolve the mensuration canons in the Benedictus and second Agnus, since all are at the unison and merely involve singing in different mensurations. Granted, the Agnus is a bit trickier since one voice is to be sung in three mensurations; this was a favourite example of theorists.

If one reads only from the Petrucci volume, that appears to be all there is in the way of canonic artifice in this mass. However, manuscript sources show that Petrucci's Kyrie is a resolved version, not hinted at. In each of the three sections one of the voices forms a mensuration canon with the tenor at an unusual interval. In the first Kyrie the superius and tenor are written on the same stave; the placement of the clefs (F on the second line, C on the fourth line) shows that the tenor enters a ninth below. A *signum congruentiae* marks the end of the tenor part; since it is much slower because of the augmentation, only part of the music is sung. Of course it is possible that Petrucci wrote the voice parts out separately because of the partbook format; yet Basel F.IX.25, which preserves the canonic form, is also in partbooks.

¹⁵ See Blackburn, „Masses based on popular songs“, 51 n. 1.

¹⁶ At the beginning, though not at the end. Essentially, the semibreves (= longs) are not imperfect, and the counterpoint shows that it is indeed possible to sing without ceasing.

In the first Josquin volume as a whole, seven canons appear only in the original form, eight in the original with a resolution, two in resolved form only, and three are simply written out (see Table 2). By contrast, in the Obrecht volume that followed next, only four canons are given in the original alone, while seventeen canons have both original and resolution (see Table 3). The masses involving mensural transformation of one voice under different signs were easy to resolve, but the second Agnus of the *Missa Je ne demande*, with its enigmatic inscription in the superius „I give tithes of all that I possess“, and curious remark in the alto, „An accident may be present or absent without corrupting the subject“, proved a difficult nut for the editor to crack. In fact he got it spectacularly wrong, as is evident by comparison with the version in Munich 3154. Unfortunately, neither source preserves the original canonic inscription for the tenor, which would have explained how the chanson melody was to be broken up into segments which were to be sung in reverse order, interspersed with an ostinato repetition of the head-motif. Not realizing how it was to be done, Petrucci's editor rewrote large portions of the other voices to make them fit with the tenor, which was presented in its normal form as the chanson melody. Elsewhere I have offered a hypothesis on what the original inscription may have been.¹⁷ The whole Obrecht volume shows considerable editorial intervention, especially in the matter of text underlay.

The 1503 volume of masses by Johannes Ghiselin, who liked to use augmentation, retrograde, and enigmatic inscriptions, also required many resolutions, but subsequent volumes of masses proved less demanding on the editor, with the exception of the two other volumes of Josquin's masses. As mentioned, in the second volume Petrucci gave only the original form or only a resolution (see Table 4). He wrote out five imitation canons, though the *signum congruentiae* is preserved in the *dux*. Although four of the five masses have enigmatic inscriptions in other sources, only one such inscription is retained in Petrucci's volume. This is the amusing „De minimis non curat praetor“ in the first Agnus of the *Missa Malheur me bat*. It was such a well-known legal maxim („the magistrate does not bother with trifles“) that Petrucci did not resolve the tenor, which is identical with the chanson tenor. The phrase means to omit all minims and smaller notes. But the singer has to be on his toes, since the sign C shows that he needs to augment all the note values. If this tenor had been presented only in resolution, it would look like a succession of breves with a few longs, far different from the original, and perhaps giving the impression of a chant melody.¹⁸ The inscription appears in many manuscript sources, but the one in Leipzig 51 is different, the biblical tag „Multi sunt vocati, pauci vero electi“ („Many are called, few are chosen“).

¹⁷ „Obrecht's *Missa Je ne demande* and Busnoys's chanson: An essay in reconstructing lost canons“, *TVNM* 45 (1995) 18–31, reprinted in Blackburn, *Composition, printing and performance*. In the Agnus II the bass is to duplicate the superius in tenths; the altus is an optional voice that does not appear in the Munich manuscript.

¹⁸ The tenor is resolved in Brussels 9126, fol. 93^v („Canon ad longum“), but not augmented. The resolved version, in augmented note values, appears in Bologna A. XXXI and Modena IV.

Two of the masses in Josquin's second volume have fallen under suspicion for various reasons: *Missa L'ami Baudichon* and *Missa Una musique de Buscaya*.¹⁹ Petrucci's treatment of their canons differs from his previous practice: he gives only a resolution, whereas some manuscripts preserve the original versions, with enigmatic inscriptions, for the Gloria and the Credo. *Missa L'ami Baudichon* is one of those masses where the original version must have looked exactly like the chanson melody, which we do not know from a polyphonic source, but probably matches the tenor of the Kyrie (see Pl. 1, 1 in the article by Jaap van Benthem).²⁰ Much of the original version, though perhaps not all, is present in two other manuscript sources, Verona DCCLXI, which carries the chanson text, and Vienna 11778. In the Qui sedes of the Gloria (van Benthem, Pl. 2, p. 74), the resemblance to the chanson melody is evident, but the segments seem out of order. The Verona MS (van Benthem, Pl. 2) makes clear how this was done, with a very economical notation. Nevertheless, this is not quite the chanson melody, because it lacks the repeated notes in the middle of the phrase and now sounds – to English ears, at least – much more like „Three Blind Mice“, and this version underlies all the other sections of the mass. In the Kyrie (van Benthem, Pl. 1, 1) the repeated notes are fused into an imperfected longa. But Petrucci's version fits the secular text much better, allowing notes for the word „Madame“. One wonders if he (or Petrus, through his singers) knew the chanson himself. Nevertheless, Josquin's tenor is obviously based on the version without the repeated notes, and pitch is more important than rhythm. A version of the melody with the second segment transposed, with its startling B \flat , underlies the Et in terra (van Benthem, Pl. 1, 2), though we cannot tell how the transformation was achieved. In the Verona MS the singers are instructed to augment („in duplo“): this too does not explain how the melody has been derived from the chanson.

If Petrucci's decision to omit the enigmatic originals was deliberate, and not owing to their absence in his source, perhaps the singers were just as happy: certainly some may have regarded these peculiar puzzles as just too pedantic. But others, especially Josquin's fellow composers and canon enthusiasts,²¹ must have regretted this change of policy. I certainly do, because we miss an important element of the composer's conception of his work by ignoring the

¹⁹ On these masses, see Blackburn, „Masses based on popular songs“, 69–76, with references to earlier literature. On the *Missa L'ami Baudichon*, see also the contribution by Jaap van Benthem in the present volume.

²⁰ A fragment of the tune with the text „L'amy baudichon ma dame, l'amy baudichon“, matching Kyrie I but all in minims, appears in the quodlibet bass of the chanson „Souviegne vous/A bien amer“ in the Dijon chansonnier. Modern edition in *The combinative chanson: An anthology*, ed. Maria Rika Maniates, Madison, Wis. 1989, 50–1 (Recent Researches in the Music of the Renaissance 77).

²¹ One such was Hermann Finck, who in the third book of his *Practica musica*, Wittenberg 1556, reprinted many of the canons from Josquin's masses, but without text or even the name of the author. He also used sections of Josquin's masses to illustrate notational procedures. For his examples from Josquin's *Missa L'homme armé super voces musicales*, see Blackburn, „Masses based on popular songs“, 58 n. 20.

original version of enigmatic canons. This has been an almost universal failing in modern editions as well, except insofar as a facsimile happens to show the tenor.²² In many masses based on a secular cantus firmus the composer began with the idea that he was going to present a visual image of the melody that matched the original exactly: clefs, mensuration sign, and note values. Behind every transformation lies the intact original, and clever composers can present the melody in its original visual form, adding inscriptions, changing the clefs, and using different mensuration signs to ensure different interpretations, which may involve repetition, transposition, augmentation, diminution, inversion, retrograde, segmentation, omission, and addition. Obrecht was a past master at this.²³

In principle, the tenor of such a mass might be presented only once, with the appropriate signs and directions for each section. But such a presentation is impossible in choirbook format, and I have never seen it in partbook format—which is, however, fairly rare for masses. Moreover, in a choirbook it is impossible to present an enigmatic canon in its original form even in single sections of the mass unless there are no page turns; this is why resolutions of enigmatic canons are often necessary in choirbooks, though with imitation canons at short distances there is no problem. Even if singers were expert in deciphering enigmatic canons, they could not be expected to sing from a voice part that was not present on the page. Perhaps this is one reason that Petrucci turned to partbook format when he began printing masses.

Petrucci may have come to the aid of the singer by resolving many canonic conundrums, and in not a few cases I suspect that modern scholars are equally grateful for the resolutions. But when he has omitted the original versions, we have suffered a loss that is not always remediable from manuscript sources.

²² Even so astute a scholar as Edgar Sparks rarely looked at the original notation, which would have saved him from several misunderstandings and clarified his analyses in his otherwise admirable book, *Cantus firmus in mass and motet 1420–1520*, Berkeley and Los Angeles 1963.

²³ See R. Larry Todd, „Retrograde, inversion, retrograde-inversion, and related techniques in the masses of Jacobus Obrecht“, *MQ* 64 (1978) 50–78, and, in general, Rob C. Wegman, *Born for the Muses: The life and masses of Jacob Obrecht*, Oxford 1994.

Table 1. Canons in Petrucci's first three anthologies

	Composition	Type of canon	Inscription
	Odhecaton (15 May [June?] 1501)		
1	Jo. Stokem, <i>Brunette m'amiette</i> , fol. 7v	at lower 5th after 2 breves	None: written out (also in Vienna 18746, in partbooks).
2	Josquin, <i>De tous biens playne a 4</i> , fol. 102v	at unison, at minim	"Canon Petrus et Joannes currunt In puncto" (John 20: 3-4).
	Canti B (15 Feb. 1501/2)		
3	Josquin, <i>L'omme armé</i> , fol. 2r	all notes dotted	"Canon. Et sic de singulis" (the canon is the dot; it is written after the first note in each part but applies to all notes thereafter).
4	Josquin, <i>Comment peult</i> , fol. 22v	at lower octave after 2 breves	None: written out (canonic in Bologna Q 17, CG XIII, 27, and Florence 178; written out in Glareanus).
5	De Orto, <i>D'ung aultre amer</i> , fol. 27v	segments repeated transposed up a 5th	Over both CT and B: "Obelus quinis sedibus ipse volat" ("The obelus itself flies by five places"); over T: "Quartus confortativus" (not a canon but a remark).
6	Japart, <i>J'ay pris amours</i> , fol. 33v	retrograde, transposed down a 12th	Over S: "Fit aries piscis in licanosypa-thon" ("Aries [the first sign of the zodiac, governing the head] becomes Pisces [the last sign, governing the feet] on licanos hypaton"). CG XIII, 27: "Canon Vade retro Sathanas". Florence 178: "Antiphrasis baritonat". Florence 229: "Canon: Ne sonites a mese. Lycanosipathon summite" and "Antiphrasis baritonat". Verona DCCLVII: no instructions.

	Composition	Type of canon	Inscription
7	Josquin, <i>Basies moy a 4</i> , fol. 38r	double canon at upper 4th after a breve	None: all voices written out (2 voices notated in Antico 1520 ³).
8	Bulkyn, <i>Or sus, or sus, bovier</i> , fol. 40r	at lower 4th before a semibreve (i.e. canon at upper 4th)	Above S: „In subdiatessaron“ (canonic voice enters <i>before</i> the superius).
9	Anon., <i>Basies moy a 6</i> , fol. 40v	triple canon at upper 4th after a breve	Above S: „Fuga In diatessaron“; above T and B: „Fuga“.
10	Anon., [A]vant avant, fol. 35 [= 41]	at lower 4th before a semibreve (i.e. canon at upper 4th)	Above S: „In subdiatessaron“ (canonic voice enters <i>before</i> the superius).
	Motetti A (9 May 1502)		
11	textless piece, fol. 2r	double; retrograde	Upper voice: „Canon: misericordia et veritas obviaverunt sibi“; lower voice: „Canon. iustitia et pax obsculate sunt“ (Ps. 84: 11).
12	Ghiselin, <i>O florens rosa</i> , fol. 22v	augmentation in T	♢ in S and CT, C in T; in Florence 2439 the T is resolved.
13	Compère, <i>Quis numerare queat</i> , fol. 46v	1.p. at lower 2nd after breve 2.p. at lower 4th after 3 breves 3.p. at lower 4th after breve	T: „Canon uni post toniza.“ S: „Canon: Subdiathessaroniam.“ T: „Canon. Ipodiathessaroniza.“
14	Josquin, <i>De tous biens a 3</i> , fol. 55v	at 5th above after semibreve	Tenor et Contra [i.e. one voice with this label at the side]: „Canon. Fuga per semibreven in netesinemenon“.

Table 2. Canons in *Misse Josquin* (1502)

Mass	Inscription ^a	Original only	Original and resolution ^b	Resolution only	Written out	Different inscription or notation in other sources
<i>L'homme armé s.v.m.</i>						
Kyrie					x (and resolved)	x (mens.)
Et in terra			x			
Qui tollis	x		x			
Patrem			x			
Et incarnatus	x		x			
Confiteor	x		x			
Sanctus			x*			
Osanna	x	x (ut iacet)				
Benedictus	x (mens.)	x				
Qui venit	x (mens.)	x				
In nomine	x (mens.)	x				
Agnus I			x			
Agnus II	x	x				x
Agnus III	x		x			
<i>Gaudeamus</i>						
Et in terra	x	x				
Agnus II	x	x				x

<i>Fortuna desperata</i>									
Patrem		x					x		
Et incarnatus		x					x		
Et in spiritum		x					x		
Sanctus		x			x				
Osanna		x			x				
Agnus I		x					x		x
Agnus III		x			x				x
<i>L'homme armé sexti toni</i>									
Sanctus								x	x
Osanna								x	x
Agnus III		x (S, A)					x (T, B)		x

^a mens. = mensuration canon
^b asterisk = resolution not labelled

Table 3. Canons in *Misse Obrecht* (1503)

Mass	Inscription ^a	Original only	Original and resolution ^b	Resolution only	Written out	Different inscription or notation in other sources
<i>Je ne demande</i>						
Kyrie I	mens.		x			
Kyrie II	mens.		x			
Et in terra	x; mens.		x			
Qui tollis	mens.		x			
Cum sancto spiritu	mens.		x			
Patrem	mens.		x			
Et incarnatus est	mens.		x			
Et in spiritum	mens.		x			
Sanctus	mens.		x			
Osanna	x; mens.		x			
Agnus I	mens.		x			
Agnus II	x	x				x
<i>Grecorum</i>						
Et in terra	x		x			
Qui tollis	mens.		x			
Patrem	x		x			
Et resurrexit	x		x			
Sanctus	x	x				
Agnus I	x		x			
Agnus III	x		x			

<i>Fortuna desperata</i>									
Et in terra	x							x	
Qui tollis	x							x	
Patrem	x							x	
Et incarnatus	x							x	
Agnus I	mens.				x				
Agnus III	mens.				x				
<i>Malheur me bat</i>									
Kyrie I	mens.							x	
Kyrie II	mens.							x	
Et in terra	mens.							x	
Qui tollis	mens.							x	
Patrem	mens.							x	
Et in spiritum	mens.							x	
Sanctus	mens.							x ^a	
Osanna	mens.							x ^a	
Agnus I	mens.							x	

^a mens. = mensuration canon^b asterisk = resolution not labelled

Table 4. Canons in *Missarum Josquin liber secundus* (1505)

Mass	Inscription ^a	Original only	Original and resolution ^b	Resolution only	Written out	Different inscription or notation in other sources
<i>Ave maris stella</i>						
Agnus I					x	
Agnus II					x	
Agnus III					x	
<i>Hercules dux Ferrarie</i>						
Kyrie to Agnus, T				x		x
Pleni	x				x	
Agnus II					x	
<i>Malheur me bat</i>						
Et in terra	repeats	x				
Qui tollis	repeats	x				
Patrem	mens.	x				
Agnus I	x	x				x
Agnus II					x	
Agnus III	x	x				

<i>L'ami Baudichon</i>									
Et in terra							x		x
Qui sedes							x		x
Patrem							x		x
Et resurrexit							x		x
Sanctus							x		x
Osanna							x		x
<i>Una musque</i>									
Et in terra							x		x
Patrem							x		x

^a mens. = mensuration canon
^b asterisk = resolution not labelled

General Theories of Psychology		Specialized Theories of Psychology	
1. Behaviorism	2. Psychoanalysis	3. Humanistic Psychology	4. Cognitive Psychology
5. Gestalt Psychology	6. Existential Psychology	7. Systems Psychology	8. Developmental Psychology
9. Evolutionary Psychology	10. Social Psychology	11. Clinical Psychology	12. Educational Psychology
13. Health Psychology	14. Environmental Psychology	15. Industrial/Organization Psychology	16. Sports Psychology
17. Forensic Psychology	18. Gerontology	19. Cross-Cultural Psychology	20. Comparative Psychology
21. Neuroscience	22. Biopsychology	23. Psychopharmacology	24. Neuropsychology
25. Psychophysiology	26. Sensory Psychology	27. Motor Psychology	28. Learning Psychology
29. Memory Psychology	30. Thinking Psychology	31. Problem Solving Psychology	32. Creativity Psychology
33. Intelligence Psychology	34. Personality Psychology	35. Social Cognition Psychology	36. Attitude Psychology
37. Group Psychology	38. Leadership Psychology	39. Organizational Behavior Psychology	40. Management Psychology
41. Marketing Psychology	42. Consumer Psychology	43. Advertising Psychology	44. Public Relations Psychology
45. Media Psychology	46. Internet Psychology	47. Virtual Reality Psychology	48. Cyberpsychology
49. Telepresence Psychology	50. Remote Work Psychology	51. Digital Marketing Psychology	52. E-commerce Psychology
53. Online Learning Psychology	54. Distance Education Psychology	55. Hybrid Learning Psychology	56. EdTech Psychology
57. Gamification Psychology	58. User Experience Psychology	59. Interaction Design Psychology	60. Usability Psychology
61. Information Psychology	62. Knowledge Management Psychology	63. Decision Making Psychology	64. Risk Management Psychology
65. Project Management Psychology	66. Time Management Psychology	67. Stress Management Psychology	68. Coping Mechanisms Psychology
69. Resilience Psychology	70. Well-being Psychology	71. Quality of Life Psychology	72. Life Satisfaction Psychology
73. Happiness Psychology	74. Meaning Psychology	75. Purpose Psychology	76. Values Psychology
77. Ethics Psychology	78. Professionalism Psychology	79. Integrity Psychology	80. Honesty Psychology
81. Trust Psychology	82. Cooperation Psychology	83. Teamwork Psychology	84. Collaboration Psychology
85. Communication Psychology	86. Negotiation Psychology	87. Conflict Resolution Psychology	88. Mediation Psychology
89. Arbitration Psychology	90. Dispute Resolution Psychology	91. Restorative Justice Psychology	92. Community Psychology
93. Participatory Action Research Psychology	94. Empowerment Psychology	95. Social Justice Psychology	96. Human Rights Psychology
97. Environmental Justice Psychology	98. Climate Change Psychology	99. Sustainability Psychology	100. Green Psychology