# Musical Evidence of Compositional Planning in the Renaissance: Josquin's *Plus nulz regretz*

# By Christopher Reynolds

**R** ECENT EXAMINATIONS OF AUTOGRAPH MANUSCRIPTS by Cipriano de Rore and by an anonymous student have given fresh insights into the practices of 16th-century composers shaping works section by section, and demonstrated the importance of structural models to novices and accomplished composers alike (Owens 1984; H. M. Brown 1982). From their different perspectives these two essays raise the reciprocal issues of conception and procedure: a composer's plan for a work would ultimately affect the methods used to notate it, and, conversely, the notational habits of a composer would condition the type of plans he developed before committing notes to paper or parchment. Thus the theory that Cipriano de Rore worked one phrase at a time on the limited space of a *cartella* is particularly useful to analysts, because it shows how a compositional plan conceived in terms of sections could be carried out. Modern sectional analyses also receive support from Joachim Burmeister's discussion of the 'periods' in Renaissance music.<sup>1</sup>

Since Renaissance composing autographs are so rare, analytical studies offer the best means of probing issues of compositional planning. How a work was structured, and how a composer coped with the issue of musical length—both on the phrase-by-phrase level and on a larger scale—are questions for which analysis can suggest answers, at least in part. Analyses proving that a composer worked from a model can isolate the areas of derivation and deviation between the new work and its structural source. Quentin Quereau's article on parody, Howard Mayer Brown's on emulation, and Charles Warren's on Dufay's architectural inspiration all deal in various ways with a diversity of compositional techniques and models.<sup>2</sup> Structural analy-

<sup>&</sup>lt;sup>1</sup> Burmeister's treatise, *Hypomnematum musicae poeticae* (1599, revised in 1601 and 1606), and his analysis of a Lassus motet are discussed in Palisca 1972 and 1974.

<sup>&</sup>lt;sup>2</sup> Quereau 1978, Brown 1982, and Warren 1973.

ses of works without a known model have turned increasingly to proportional and mathematical approaches in attempts to find a rational basis for relating the dimensions of one section to those of another.<sup>3</sup> What makes Warren's proportional account of *Nuper rosarum flores* so unusual in this regard is precisely the strong agreement between the sectional lengths of Dufay's motet and the proportions used by Brunelleschi to complete the dome of the Florence Cathedral of Santa Maria del Fiore.<sup>4</sup>

In this study of Josquin's chanson *Plus nulz regretz*, proportional structures and what they imply for the compositional planning of fifteenth and sixteenth-century composers figure prominently. I will distinguish between those compositional decisions for which the poem apparently served as a model, and those decisions for which poetic structure and conventions provided no guidance, especially decisions about musical length.

I

Josquin's attention to the nuances of rhyme and poetic structure in *Plus nulz regretz* suggests a close collaboration with the poet, Jean Lemaire de Belges, or at the very least, a highly refined awareness of the conventions utilized by that renowned *rbétoriqueur*. It is as if Josquin had deliberately set out to show the younger Lemaire just how closely music could depict poetic conventions. The poem dates from about 1 January 1508, the occasion of a political treaty between Margaret of Austria and England, and it celebrates the resultant engagement of Archduke Charles and Mary Tudor.<sup>5</sup> Lemaire termed it a "chant nouvel." Formally it is identical to the "chant nouvel" he had written two years earlier, "Champier gentil, riche champ, pur, entier," to honor the Lyonnais humanist Symphorien Champier.<sup>6</sup>

<sup>3</sup> Among numerous recent contributions to this type of analysis are Strohm 1985, 118–20, Sandresky 1979 and 1981, Trowell 1978–79, Powell 1979, and Luhring 1973. These articles are generally much more focused and temperately worded than Marcus van Crevel's prefaces to his 1959 and 1964 editions of Obrecht. And before him see Gombosi 1950, a structural investigation of mass movements and motets.

<sup>4</sup> Warren equates the number of tactus in each of the four sections with the "number of braccia contained in the modular scheme" of the cathedral (1973, 94–96). The four sections of the motet have the same proportionate lengths as the dimensions of the nave, transept, apse, and elevation of the dome (6:4:2:3).

<sup>5</sup> Herbert Kellman provides this date for the poem (1976, 182–83). He then conservatively dates Josquin's music between 1508 and 1511. Martin Picker (1965 and 1978) suggests a date of late 1507 (1965, 72 and 1978, 447–48). The best edition of the chanson is by Howard Brown in Lowinsky 1976, 675–79, but see note 9, below.

<sup>6</sup> The text is available in Becker 1893, 89–90 and in Stecher 1891, 4:428.

54

The poems are both twenty verses long with ten syllables per verse, and a concentric rhyme scheme that reverses the order of the first eight rhymes in the last eight; thus in "Plus nulz regretz" the rhymes *a b a b*, *b c b c* become *c b c b*, *b a b a* at the end (see Table 1).<sup>7</sup> Pursuing this concentric pattern further-and this is the poem's most distinctive feature-verses 1 and 12 begin with the same words, only for verse 12 the order is twisted: "Plus nulz regretz" becomes "Regretz plus nulz," and "Champier gentil" gives way to "Gentil Champier." Each "chant nouvel" also underscores the division of the twenty verses into eight, four, and eight verses by repeating the first words of verse 1 at the end of verse 8, and the beginning of verse 12 at the close of verse 20. By combining this repeat with the characteristic reversal of word order, Lemaire concludes each poem with the opening words. Finally, Lemaire injects into "Plus nulz regretz" a rime batelée, a device popular among rhétoriqueurs of his time. The last syllable of the odd-numbered verses rhymes with the fourth syllable of evennumbered verses.8 One can label the overall form either a "reduced rondeau" (Picker 1965, 72) or a "Double virelai de nouvelle taille," as did Lemaire's biographer Philipp Auguste Becker (1893, 90, n.1). The point most relevant to this study is that Josquin incorporated formal details from the entire poem into his setting of the first eight verses.

Scholars have examined Josquin's chanson from several different angles. Howard Brown has stressed the "rhythmically distinct motives . . . clearly composed to fit the syllabic declamation of the text," while also finding the music representative of a "new control over harmonic direction" (1970, 83–6). Putnam Aldrich, preferring to limit the discussion to musical issues sanctioned by Renaissance theorists, focused on cadences and modal species (1969). Martin Picker concentrated on Josquin's manipulation of melodic contour and what he termed "a quasi-canon at changing time and pitch intervals between tenor and bassus." The "quasi-canon," as he then observed, changes its pitch intervals according to a "planned symmetry: 4th-5th-octave-5th-4th" (1965, 72). No comparable order distinguishes the changing time intervals, but Josquin had other constraints for the temporal location of motives.

To begin where Picker left off, the canonic element bears further scrutiny, for it is not confined to the tenor and bass; it is simply

<sup>&</sup>lt;sup>7</sup> The rhyme scheme of Champier gentil is a b a b, c d c d, c b c b, d c d c, b a b a. This is called concentric because it represents the intersections of a line drawn through a series of concentric circles.

<sup>&</sup>lt;sup>8</sup> As Carol MacClintock observes, Molinet claimed to have invented the *rime* batelée (1959, 116). On this and other rhyme forms, see Chamard 1932, 143-44.

## TABLE 1.

# Plus nulz regretz, Jean Lemaire

VERSE	TEXT	RHYME	TRANSLATION*
Ι.	Plus nulz regretz grans moyens ne menuz	а	No more discontent, neither large, medium, nor small,
2.	De joye nulz ne soyent dictz n'escriptz.	b	Of such joy nothing can be spoken or written,
3.	Or est venu le bon temps Saturnus	а	Now has arrived the happy age of Saturn,
4.	Ou peu cogneuz furent plaintifz et criz.	b	Where complaints and cries are little known.
5.	Long temps nous ont tous malheurs infiniz	b	For so long we have had unlimited sadness.
6.	Batuz pugnis et faictz povres meigretz,	c	From battles, strife, plundering, and famine,
7.	Mais maintenant d'espoir sommes garniz	b	But now we are strengthened with hope,
8.	Joinctz et unis n'ayons plus nulz regretz.	с	Joined and united we have no more discontent.
9.	Sur nos preaux et jardinetz herbuz	а	On our fields and green gardens
10.	Luyra Phoebus de ses rayz ennobliz.	b	The lyre of Apollo will shine with its noble rays.
11.	Ainsi croistront noz boutonneaux barbuz	а	And so will grow to maturity the shoots of our beards
Ι2.	Sans nulz abus et dangereux troubliz.	b	Without any abuse or troublesome perils.
13.	Regretz plus nulz ne nous viennent apres	c	Discontent no more will come to us afterwards.
14.	Nostre heur est pres venant de cieulx beniz.	b	Our time is near, coming from celestial blessings.
15.	Voisent ailleurs regretz plus dur que gretz	с	Let it go elsewhere, this discontent harder than stone,
16.	Fiers et aigretz et charchent autres nidz,	b	Haughty and harsh, and seek out other nests,
17.	Se Mars nous tolt la blanche fleur de lis	b	If Mars takes from us the white <i>fleur de lis</i> ,
18.	Sans nulz delitz sy nous donne Venus	а	Without any offense, and if Venus gives to us
19.	Rose vermeille amoureuse de pris	b	The amorous vermilion rose of great price,
20.	Dont noz espritz n'auront regretz plus nulz.	a	With which our spirits will have discontent no more.

\* My thanks to Professor Marc Eli Blanchard for his advice and assistance.

pursued less tenaciously in the soprano and contra. Rather than speaking of one canon it is more precise to refer to several. Josquin proceeds phrase-by-phrase, usually altering the relationship of the

	(							
Verses:	I	2	3	4	5	6	7	8
Cadences:		<u>A</u> F L	)		)		$  \qquad C$ D D $\overline{E}$	
Bar numbers:	7 9	9 I	6 2	2 293	2 4	0 48	53 596	1 66   71   68 73
Canonic pitch interval:	4th (Double)	4th (Dble)	5th (4v)	5th, 4th	8ve (4v)	8ve, 5th (4v)	4th (Dble)	4th (Double)
Number of bars canon								
S + CT:	7	3	5		8 8	4	(3), 4	3, 3, 5
$\mathbf{T} + \mathbf{B}$ :	7	39	4	3,7	8	4, 5	8	13
the top	by num	per and	l by a	line draw	'n dow	e. Verses ar nward thro e previous v	ugh the	ed at time
Cadenc	es are ide	ntified	with	a letter fo	r the so	ale degree	cadenced	l on.

Plus nulz regretz: Distribution of Verses, Cadences, and Canons

Cadences are identified with a letter for the scale degree cadenced on. When the cadence is not to the root of a triad, two letters are used, the top one for the cadence, the lower one for the triad at the moment of cadence (eg. in bar 7 there is a cadence on E, while the other voices create a C-major triad).

canonic voices with the start of a new verse (as shown in Table 2). Verses 4 and 6 each have canons at two different pitch intervals. And in verses 1, 2, 7, and 8, double canons prevail, rigorously for the first verse, less so in verse 2, which however commences as a double canon by inversion (see Example 4a).

Josquin's application of canon in his setting of verse 7 is curious. He appears to back into a double canon at bar 57 (see Example 1) when the phrase sung by the contra is quickly repeated a fourth higher by the superius at bar 59. The counterpoint in these bars seems victimized in the process as Josquin has the lower three voices converge on middle C in bar 57, and then two bars later leads the superius to a questionable doubling of an F, which the tenor needs to continue his more easily discernible canon with the bass. In fact the counterpoint of the top parts is as boldly conceived as that of the lower. Josquin introduces the double canon at the beginning of verse 7 by letting the superius imitate itself: bars 53-54 return a fourth higher in bars 55-56 over the step-ladder canon in the tenor and bass. On paper the canon appears feigned, but aurally, as Josquin meant it to be perceived, the effect of a double canon stands out forcefully.

### TABLE 2.

Example 1



Josquin, Plus nulz regretz, mm. 53-61; setting of verse 7

The use of double canons in the first and last verses, together with the symmetry Picker noted in the changing pitch intervals, recalls the concentric order of Lemaire's rhymes: a b a b,  $b c b c \ldots c b c b$ , b a b a. But the feigned canon in verse 7 leads to a more precise understanding of Josquin's musical logic. He also organized motives concentrically, so that important motives in the first half of the chanson recur in reversed order in the second half. Example 2 aligns the three entrances of what I shall call the motivic mirror, placing motives, or mirror

58





Plus nulz regretz, mm. 1-4 and 53-57; mirror point 1

points, from the beginning alongside their counterparts from the end. Josquin generally shuns exact repetition in favor of a slight variation, a variation in rhythm more than pitch. The sole exception is the virtually note-for-note repetition which occurs in the central mirror-point (Ex. 2c), where he reuses the music of verse 5 for the first words of verse 6.

By contrast the first mirror point (Ex. 2a), involving the double canon entries for verses 1 and 7, combines changes in rhythm with an inversion of voices. The opening canon between tenor and bass (bars 1-9) uses the same notes as the feigned canon in the superius (bars 53-57) at verse 7. Both are strict imitations at a fourth above that move from A down a major third to F and back, finishing with a downward leap of a fifth (these motives are marked with dotted brackets). Similarly, in the accompanying imitation the two voices step up through conjoined fourths to fill out a minor seventh (marked with



Example 2b

mm. 22–7 and 48–48; mirror point 2



brackets). Josquin here comes very close to writing ornamented invertible counterpoint at the minor seventh. In the second mirror point (Ex. 2b) Josquin displays a different kind of contrapuntal artistry. Once again he introduces important rhythmic changes, but instead of inverting voices, he readjusts the temporal relationship between the canonic parts and the accompanying contra voice. Originally (bars 22-27) the canonic voices entered in rapid succession below two statements of the contra's contrapuntal motive. In the mirrored statement beginning at bar 43, the canon unfolds more deliberately, while the contra states its motive once only. Over each passage the superius oscillates between a high C and the G below, finally coming to rest on A.

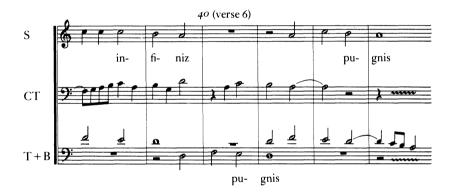
The concentric organization of *Plus nulz regretz* embraces more than motives and canons. In the series of cadences visible in Table 2, verses 4 and 6 share a similar musical structure. After sustaining the

60



mm. 32-43; mirror point 3





two longest periods without any cadences, each comes to closely spaced cadences on A and then on D. To arrive at these two cadences on D, Josquin simply repeats the non-imitative upper voices that had led to the preceding cadences on A, transposing them down a fourth. With verse 6 the superius is transposed intact (bars 44-48 are a fourth higher than bars 49-53), but Example 3 shows how in verse 4 the transposed superius is actually a hybrid of notes from the contra and superius in bars 27-29. Also, verses 4 and 6 feature the only change of canonic interval in the middle of a verse. Elsewhere Josquin links verses 2 and 8 by casting their beginnings in the same rhythmic mold (see Example 4). Taking all of these features into account, the symmetrical plan of *Plus nulz regretz* is summarized in Table 3. Verses I and 7 share canonic voices and motives, verses 2 and 8 begin with the same rhythmic pattern, the first part of verse 6 repeats the notes Example 3

Plus nulz regretz, transposition (and realignment) of mm. 27-29 in mm. 30-32



Example 4a

Plus nulz regretz, mm. 9-11; beginning of verse 2



Example 4b

mm. 61-63; beginning of verse 8

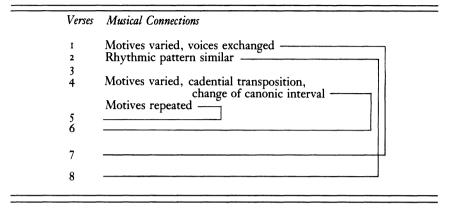


of verse 5, and verse 4 and the second half of verse 6 vary motives and are structured in like fashion. Only the setting of verse three stands outside the symmetrical organization of motives and cadences, for reasons discussed below.

As a musical depiction of poetic design, *Plus nulz regretz* is a tour-de-force. Lemaire achieves a concentric order in his "chant nouvel" chiefly by reversing the order of the rhymes, but also by repeating the first words of the poem both at the end of verse 8, and in reversed order, as the last words of verse 20. Josquin matches each step of Lemaire's plan. Just as the concentric rhyme scheme inspires the motivic mirror, Lemaire's alteration of "Plus nulz regretz" to "Regretz plus nulz" provides impetus for Josquin's inversion of voices between the settings of verses 1 and 7 (Ex. 2a). As the words exchange

#### TABLE 3.

Plus nulz regretz: Symmetrical Plan



positions, so do the paired imitations: top becomes bottom and bottom top.

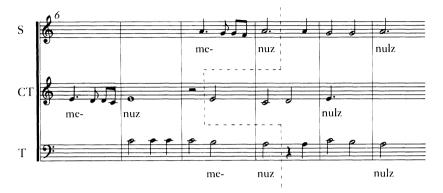
Josquin even takes pains to observe the *rime batelée*, the rhyme of the fourth syllable of the even verses with the last syllable of the preceding odd verse. This is partially visible in the way he elides the ends of odd verses with the beginnings of even verses (represented by slurs along the top of Table 2). But, more significantly, for these elisions Josquin relies on essentially the same notes to end one verse and begin the next. The verses for which this is most exact, verses 5 and 6 (Ex. 2c), are perhaps the least admissable as evidence, because they are also the center-point of the motivic mirror and all parts repeat anyway. Nevertheless, as shown in Example 5, the upper three voices of verses 1-2 and 3-4 also display the melodic equivalent of the *rime batelée*.<sup>9</sup>

The extent of the musical-poetical union suggests a change in the prevailing view of how the remainder of the poem ought to be set to music. The rhyme scheme of the full twenty verses alternates quatrains of  $a \ b$  rhymes with quatrains of  $b \ c$  rhymes in the pattern  $A \ B \ A \ B \ A$ . To accommodate the final three quatrains to Josquin's music, the usual solution is to underlay verses 9-12 to bars 1-32 since their rhyme scheme is the same as verses 1-4, and then to go back to the beginning, setting the last eight verses to bars 1-74 (Jeffery 1976,

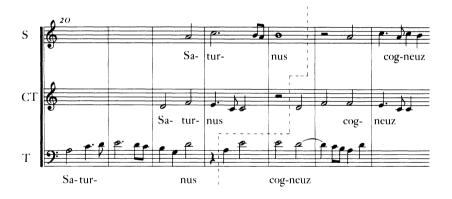
 $<sup>^{\</sup>circ}$  Because of the *rime batelée*, the text as it is set in Lowinsky 1976, 675–79, ought to be adjusted in the superius, bar 26, so that the first four syllables of verse 4 fall on the first four notes of the line.

Example 5a

Plus nulz regretz, mm. 6-11; musical rime batelée of verses 1-2



Example 5b mm. 20-26; musical *rime batelée* of verses 3-4



418). As a result the musical scheme A B A A B diverges from the alternating poetic scheme A B A B A after the third quatrain. But here too I believe Josquin intended to follow Lemaire's lead.

Working with an unconventional poetic form, Josquin seems to have engineered an equally unusual musical form, for if music and poetry are to adhere over the full twenty verses, then the musical structure should also be A B A B A. Accordingly verse 13 would begin in bar 32, continuing without a break from verse 12, and the final quatrain, beginning at bar 1, would finish at bar 32. Because each of the verses has ten syllables, reversing the music for the third and fourth quatrains poses no difficulty in terms of text underlay; indeed,

64

## Example 6

*Plus nulz regretz*, mm. 27–34; end of verse 20 and beginning of verse 13 in *ABABA* text setting



this arrangement enhances the relationship between text and music for the last eight verses by revealing a link between motivic variation and poetic turn of phrase. According to my suggested arrangement the last eight verses would begin and end with the same words, "Regretz plus nulz", sung to the same notes (D-F-E-D or A-C-B-A). Example 6 demonstrates the circular result of this text setting. Among other textual realignments effected, the longest melisma (superius, bars 13–18) would thus accompany "Venus" (verse 18) rather than "beniz" (verse 14), and the grammatically identical beginnings of verses 8 and 16 would both be set to the entrance at bar 61 (Ex. 4b).

Undeniably, a conclusion at the cadence in bar 32 is musically less 'final' than that at the cadence in bars 73-4; yet in setting a poem that ends with its beginning, 'finality' must compete with circularity. A concern for a circular order also offers a formal justification for Josquin's brief departure from the symmetrical plan of the canons. As shown in Table 2 the canon at the upper fifth which begins in bar 16 reverts to a canon at the upper fourth in bars 26-32. This reversion sustains the canonic symmetry only if these are the final bars of the chanson, thereby closing the setting as it had begun, with a canon at the fourth above. And finally, an A B A B A musical form accords with structural evidence which we may now proceed to consider.

Π

In seeking a rationale for the relationships between motives, I have so far concentrated on substantiating the connections between similar configurations of pitches. The added bond of motivic order and poetic structure provides us with two essential elements of "compositional planning": a plan, in this case a structural model, and the materials with which to realize the plan. We can therefore suppose that in setting out to replicate important poetic events in music, Josquin began with a clear structural goal—the concentric order—and proceeded by arranging symmetrically a limited number of motives and canons. But because Josquin's musical proportions diverge from the dimensions of the poem, it is evident that the influence of poetic structure had its limits.

The position of any musical event in a vocal work can be reckoned in two ways: in relation to the text, and in terms of the music itself. Measured against the text the three pairs of canonic mirror points coincide with the beginnings of a verse in all but one instance: verse 1, verse 4, verse 5, verse 6, verse  $6\frac{1}{2}$ , and verse 7. However, when the mirror points are measured against the music, the symmetrical layout is striking. The spacing of the concentric motives, shown along the top of Table 4, occurs at regular intervals, marking out overlapping segments of bars in the sequence 22:11:12:11:22.<sup>10</sup> Both entrances of the first mirror point endure for twenty-two bars, and both of the

<sup>&</sup>lt;sup>10</sup> Because the texture is so persistently polyphonic, I have counted each section to the conclusion of the tenor voice (always the last voice to finish), resulting in one bar of overlap with the start of the succeeding section.

second points last for eleven, while the third points fill twelve bars between them. The central twelve bars contain twelve statements of the motive, six in the first  $5\frac{1}{2}$  bars (up through bar 37) and six in the next  $6\frac{1}{2}$ . Thus the musical midpoint at bar 37 is truly a motivic pivot, a turning point after which the motives turn back to reiterate those already introduced.

In their symmetrical proportions the concentric motives offer yet another musical manifestation of the symmetrical rhyme scheme. Yet this proportional structure is abstract in the sense that it bears no apparent relation to the structural dimensions of the poem. Josquin does acknowledge poetic proportions in other ways. Along the bottom half of Table 4 I have indicated both the number of bars required to set individual verses and the number for settings of elided verses. For individual verses the totals are irregular, predictably so, while the couplets show a surprising regularity. Allowing for one bar of overlap between verses 4-5 and 6-7, Josquin sets the paired verses to units of sixteen bars (verses 1-2 and 3-4) and then twenty-two bars (verses 5-6and 7-8). Since each of the twenty-two bar settings concludes with a repetition, they also devote sixteen and seventeen bars to the paired verses, coming to a cadence before repeating the final bars. Although these extensions result in an asymmetrical division within the setting of verses 1-8-the first quatrain receives a shorter setting than the second—in the context of the full twenty verses, this does not disturb a close correspondence between textual and musical dimensions. Josquin's music certainly applies to the entire poem. Because the complete length of the setting is 180 bars (that is, 74 + 74 + 32) and that of the poem is twenty verses, the ratio of the first 74 bars to the entire 180 corresponds to that of the first eight verses to all twenty. Put in mathematical terms, 8:20 = .40 and 74:180 = .41. Furthermore, with verse 10 concluding at the cadence in bar 90 (bar 16 at its first repeat), text and music in their entirety share the same midpoint.

Having identified two levels of proportional organization, I see no sure means of establishing that one takes precedence over the other. The abstract organization of motives and the text-related elision of paired verses both exert structural constraints on the text setting; these constraints apparently lead to the motivic asymmetry of verse 3 observed earlier (see Table 3). A structural discrepancy between the setting of verses 1-4 and that of verses 5-8 is evident in Table 4. For the last four verses the two levels of organization coincide, so that the beginning of each of the twenty-two bar segments required for each pair of verses meshes neatly with an entry of the motivic mirror. No such synchronization takes place in the first quatrain, because the

Mirror points: 1				2	3 - 3	2		I	
Number of bars:		22		11	I	2	11		22
				$\frown$	$\neg \frown$	$\sim$		$\neg$ —	$\sim$
v	. I	V. 2	v. 3	v. 4	v. 5	v. 6		+ v. 71	v. 8
Length of individual verse in bars: Length of pairs of	8	8	6	10	8	14		8	14
Length of pairs of elided verses in bars:		16		16		22 (17+	- 5)	 2	2 (16+6)

TABLE 4. Plus nulz regretz: Mirror points and verse lengths

proportional demands of the paired verses and mirror points diverge. Verse 3 consequently falls between the end of verse 2 in bar 16 and the entrance of the second mirror point in bar 22. Were Josquin to have filled these intervening six bars by repeating the end of verse 2, he would have augmented the structural parallels between the first and last twenty-two bars, but sacrificed the equilibrium of verses 1-2 and 3-4.

The difficulty of establishing a hierarchy of the various structural features in *Plus nulz regretz* may in fact stem from their having been conceived simultaneously, according to a procedure similar to the one artists of the time used to achieve a mathematically exact perspective. Fifteenth-century artists thought of linear perspective as a means of depicting objects in their proper proportions according to their distances from the viewer. How much to enlarge or diminish an image in order to maintain its proportional size could be gauged with geometrically determined ratios. Alberti was the first to formulate a theory of linear perspective in *Della pittura* (Latin, 1435; Italian, 1436), and he began his treatise with a mathematical discussion, expressing proportionality in terms of similar triangles: ". . . every intersection of any triangle parallel to the base must form a new triangle proportional to the bigger one. So that objects which are proportional to each other, correspond to each other in all their parts" (Wittkower 1953, 278). From proportional triangles it is a short step to Alberti's notion of painting as "the intersection of the visual pyramid" (ibid., 277-78). In other words the canvas is an intersecting plane in the visual pyramid that extends from the viewer's eye to the objects viewed. By means of perspective the images represented on the two-dimensional cross-section of the canvas are given the same proportional relation to each other as seen in the objects in space.

	Verses 1-4	Verses 5-8	Verses 9-12	Verses 13-16	Verses 17-20
Bars per quatrain:	32	42	32	42	32
Elapsed bars:	32	. 74	106	148	180
		·		·	·

 TABLE 5.

 Plus nulz regretz: Large-scale Structure

Josquin may have approached Plus nulz regretz as an exercise in musical perspective. The events within his setting of eight verses appear to be ordered according to a system of proportions based on the large-scale structure of the entire twenty-verse chanson. By "large-scale structure" I mean the form which results from performing all five quatrains to repetitions of the seventy-four bars Josquin composed for two. Table 5 charts the successive musical divisions, quatrain by quatrain, up to a total length of 180 bars. I have assumed that the musical order adheres to the A B A B A order of the quatrains. Using a procedure similar to the one artists of the time used to achieve a mathematically exact perspective, Josquin may have derived the small-scale structure from the ratios between the large scale sections. On the small scale of seventy-four bars the compositional decisions were extensive: how much music to devote to each verse, where to introduce and change canons, and how to arrange the concentric motives. On the large scale of 180 bars there was only the question of the relative length for each quatrain. The thought of a proportional relationship between the large and small scales would seem farfetched, were it not for a remarkable agreement between the location of events within the seventy-four bars and the ratios of the large-scale sections.

Mathematically the ratios are complex, but geometrically, relying on the Euclidean triangles and intersectors used by artists and mathematicians, their derivation is simple. Virtually all of the important structural points in *Plus nulz regretz* relate to the seventy-four bar setting according to this involved series of ratios between the settings of the five quatrains. These I have listed in Table 6, together with the musical events that commence in the designated bar. The scope of the correspondences leaves the impression that Josquin calculated the ratios, grouped them in numerical order, and then assigned to each resultant bar a verse, a canon, and a motive.

#### TABLE 6.

PRO	PORT	IONS	MUSICAL EVENTS					
Large-scale ratios	<u></u>	Small-scale ratios	Begin at bar	Verse	Canonic Interval	Mirror		
I	=	I	I	I	4th	I		
32:148	=	16:74	16	3	5th			
32:106	=	22:74	22	4	5th	II		
32:74	=	32:74	32	5	8ve	III		
106:180	=	43:74	43		5th	II		
106:148	=	53:74	53	7	4th	I		
148:180	=	61:74	61	8	4th			

Plus nulz regretz: Proportional relationships and location of musical events

As an interim summary of how thoroughly large- and small-scale planning are integrated in *Plus nulz regretz*, two earlier observations on Josquin's musical response to Lemaire's inversion of "Plus nulz regretz" into "Regretz plus nulz" may now be tied together. Within the seventy-four bar setting I suggested that Josquin mimicked this shift in the inversion of canonic voices at bars 1 and 53. Motives remain the same as the vocal ranges exchange. Meanwhile in the setting of all twenty verses, a rendition with the musical order A B A B A achieves a similar end, with verses 1-8 sung to bars 1-74 and verses 13-20 to bars 32-74 and 1-32. This time the changed word order spurs a change in motives while the order of entrances remains the same, and the use of the same motive on either side of bar 32 results in "Plus nulz regretz" coming full circle from the beginning of verse 13 to the end of verse 20. In view of the possible dependence of small scale events on large scale ratios, Josquin's double exploitation of Lemaire's syntactical change is itself a kind of musical perspective. One system of relations is portrayed on two scales, once in the confines of eight verses and again more expansively over the whole chanson.

Five years after writing "Plus nulz regretz," Jean Lemaire expressed his belief that "Rhétorique et Musique sont une mesme chose."<sup>11</sup> It is hard to imagine a better demonstration of this unity than Josquin's meticulous representation of the poem's concentric structure. The circular organization of the poem doubtless reflects the engagement of archduke Charles and Mary Tudor, anticipating the day when they would become "joinctz et unis."<sup>12</sup> Josquin manifests the concentric rhyme and the inversion of the first words in almost every facet of his composition: in the order of canons, motives, and dimensions, and perhaps even in the central and circular *D-F-E-D* motive of verses 5–6, almost a drone with twelve overlapping statements.<sup>13</sup> Because there may also be circular symbolism in the octave, Josquin's presentation of the *D-F-E-D* motive in an octave canon reinforces this interpretation. Indeed, *Plus nulz regretz* looms as a motivic counterpart to the harmonic circle Lowinsky identified in Josquin's slightly earlier *Fortuna d'un gran tempo* of 1501.<sup>14</sup>

# III

The sources of such abstract musical thinking extend back at least as far as the isorhythmic motets of Dufay. The inversion of upper voices to lower and lower to upper in *Plus nulz regretz* has two precedents in *Fulgens iubar* (1442) and *Rite maiorem Jacobum*, both of which involve simultaneous exchanges of melodic material between

<sup>11</sup> Written in a letter to 'Monsieur Maistre Francois Le Rouge' in 1513, and published in Stecher 1891, 3:197. Beck 1984 offers a modern affirmation of this view. He writes of a "challenge" faced by composers "to 'musicalize' meaning—that is, to reflect or embody a verbal message through correspondences in music and even, as it were, equivalences for the words of a text" (657). But until we understand the musical style better, it is premature for him to claim that composers "often" used "a formal artifice not for structural purposes but in a merely incidental, anecdotal way" (658). And it oversimplifies the discussion to set up an opposition between structural usage on the one hand, and "the merely incidental, anecdotal" on the other, and then maintain that if something isn't the one it must be the other.

<sup>12</sup> Similarily, in his earlier "chant nouvel," that written to honor Symphorien Champier, Lemaire's concentric rhyme scheme may have been inspired by the neoplatonic writings of Champier. In *La nef des Princes* (1502) Champier borrowed from Ficino to declare "Dieu est une esphere incomprehensible et qu'on ne peut entendre laquelle a le centre c'est le mylieu partout et la circumference cestassavoir le finement et le bout n'est en nul lieu." And a year later in *La nef des Dames* he translated Ficino directly, "L'amour est ung cercle bon." See Wadsworth 1962, 111 and 164, and Mahnke 1937, 46–47.

<sup>13</sup> Warren Kirkendale argues the rhetorical significance of circular motives (1984).

<sup>14</sup> Lowinsky 1943. Lowinsky had earlier observed that "the octave takes the same place among musical intervals as does the circle among geometrical figures" (1941, 77).

motetus and triplum.<sup>15</sup> And the complex melodic retrograde of Balsamus et mundi (1431) is in principle analogous to the concentric plan followed by Josquin (Sandresky 1981, 297-301). Among works written after Plus nulz regretz, I have detected concentric melodic structures in the madrigals Madonna, qual certezza by Philippe Verdelot and Grat' e benigna donna by Adrian Willaert. As happens in Josquin's chanson, similar motives tend to be set to similar durations, so that in both Verdelot and Willaert not only pitch but also time has a concentric design.<sup>16</sup> Verdelot ends his setting of the ballata text with a virtually exact repetition of the first fourteen bars. He also orders the interior phrases of this framing section concentrically, in the order a-b-c-b'-a' (see Example 7). In this case the motives are not repeated literally but in a slightly varied form, generally steering the end of each phrase to the starting note of the succeeding phrase. Like Verdelot, Willaert pairs a series of short motives, four or five bars long, instead of the larger segments matched by Josquin. The first and last motives of Grat' e benigna donna are given in Example 8. Josquin's is the only concentric structure to incorporate exact repetition at the pivot point. Verdelot and Willaert both insert a phrase between the mirrored motives, and Willaert further blurs the central pivot by inverting two voices from the first half when they return in the second half, as had Josquin.

Of greater import, Dufay's use of proportional structures to govern the sectional dimensions in at least some of his large isorhythmic motets provides obvious parallels to the constructional schemes described above.<sup>17</sup> But symmetrical sections are still evident in much later compositions such as Monteverdi's setting of "Cruda Amarilli" or Rore's of "Dalle belle contrade." Monteverdi places the musical midpoint (b. 34) half way through the eight verses of text. He also surrounds the conjunction of midpoints with a simple and vividly

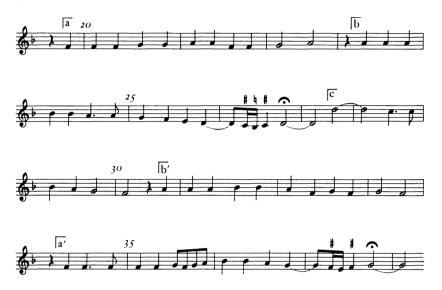
<sup>15</sup> On these works see S. E. Brown 1957. 'Isomelic' is there defined as "a general term identifying reappearances of the same or similar melodic material in the upper voices at corresponding locations with respect to the divisions of the tenor" (p. 7). On the dating of *Fulgens iubar*, see Fallows 1982, 60-61.

<sup>16</sup> Daniel Heartz observed a proportional structure in Madonna, qual certezza for which he could find "no textual explanation" (1964, 123). Verdelot's madrigal was first published in *Il primo libro de Madrigali di Verdelotto* (Venice, 1537) and Willaert's in *Il secondo libro de Madrigali di Verdelot insieme con alcuni altri bellisimi Madrigali di* Adriano (Venice, 1536). Madonna, qual certezza is a ballata with a closing repeat of the first fourteen bars, and Grat' e benigna donna has been said to resemble a ballata "except that it lacks a rhyme between the volta and ripresa. ..." (Cesari 1908, 26).

<sup>17</sup> For a discussion of arithmetic proportions in Dunstable's motets, see Trowell 1978–79.

Example 7

Philippe Verdelot, *Madonna*, *qual certezza*, mm. 20-37; concentric structure of interior phrases



symmetrical abstract structure: verses 1-2 (25 bars), verses 3-4 (9 bars), verses 5-6 (9 bars), and verses 7-8 (24 bars). Similarly, Rore divides the sonnet "Dalle belle contrade" into musical halves, 40 bars for the *ottava* and 41 for the *sestina*, with a half bar of rest separating the two.<sup>18</sup> Moreover, the center of the sonnet, a six-verse speech by the poet's lover, straddles this division with three verses at the end of the *ottava* and three at the beginning of the *sestina*. Rore gives these equal musical time, allowing  $15\frac{1}{2}$  bars for each. Because there are  $24\frac{1}{2}$  bars both before and after the speech, the musical-poetic structure is plainly symmetrical,  $24\frac{1}{2}:15\frac{1}{2}:24\frac{1}{2}$  (+ 1).<sup>19</sup>

The most important structural precedent of all may be the isorhythmic distinction between *color* and *talea*, a separation of the

<sup>18</sup> If the final cadential breve is omitted from the count, then each musical half is of equal length. Strohm 1985, 119 is the most recent of many discussions to make proportional calculations excluding the final chord. This is perhaps analogous to the practice in architectural treatises of the fifteenth and sixteenth centuries of figuring spatial proportions "in luce," that is, not counting the space occupied by columns. On this, see Saalman 1959, 95, n. 16.

<sup>19</sup> Michele Fromson discussed more complex proportional structures in the settings of *O sacrum convivium* by Wert and Pallavicino in her paper "*O sacrum convivium*: A Study of Motet Traditions in Late Sixteenth-Century Italy," read at the national meeting of the American Musicological Society (Cleveland, 1986). I am grateful to her for providing me with a copy of her paper.

Example 8

74

Adrian Willaert, *Grat' e benigna donna*, pairing of opening motives a, b, and c (mm. 1-13) with closing motives (mm. 44-55)



melodic and temporal elements of music. Compositional planning in the fourteenth century often involved the laying out of a time frame in the dimensions of the tenor and then fleshing out this framework with a recurrent motivic pattern. The conceptual difference between this practice and what I am describing for *Plus nulz regretz* is more a difference in degree than kind. Durations may no longer be measured by divisions of a *talea*, but abstract temporal units did not necessarily disappear as composers dispensed first with the isorhythmic tenor and later with a cantus firmus. Just as art historians would no longer agree that Alberti "freed himself, as far as method is concerned, from every tradition" of the fourteenth century, his exact contemporary Dufay did not abandon the medieval dichotomy between temporal and melodic organization.<sup>20</sup> Proportional works had to have the relative

<sup>20</sup> Panofsky 1955, 94–95. Jane Andrew Aiken refutes Panofsky's position (1980, 68). She demonstrates that Alberti's "system of human proportions resulting from measurements of the human body," the first extant of its kind, ". . . turn[s] out to be controlled by mathematical relationships deriving from both classical and medieval commentaries on human proportions as well as from contemporary workshop

lengths of the parts and the whole planned before setting text to music. Despite spanning more than a century-and-a-half of stylistic changes, the isorhythmic architecture of *Nuper rosarum flores*, the motivically defined proportions of *Plus nulz regretz*, and the abstract symmetry of Monteverdi's *Cruda Amarilli* all attain Alberti's definition of beauty as "a harmony and concord of all the Parts achieved in such a manner that nothing could be added or taken away or altered except for the worse."<sup>21</sup>

One of the first compositional steps taken by Dufay, Josquin, or Monteverdi must therefore have been to determine the length of the whole. John White has detected an analogous circumstance in fifteenth-century visual arts: "Space is created first, and then the solid objects of the pictured world are arranged within it in accordance with the rules which it dictates. Space now contains the objects by which formerly it was created" (White 1967, 123). The dimensions of a composition with a proportional structure would be established either by determining the entire length and then interpolating divisions at the mathematically appropriate bars, or by fixing the size of one section and using it as a basic module from which to extrapolate the proportionate size of the whole. Only then would the individual verses, the musical analogues of "solid objects of the pictured world," be distributed within the alotted space.

Musical planning along these lines, whether for strictly proportional compositions or not, would explain how a composer such as Cipriano de Rore could work section by section, evidently working out at least a few voices on a *cartella* before transferring them into the part books (Owens 1984, 271–93). Prenotational decisions about where to place cadences, chords, canons, etc.—these all limited a composer's options by delimiting space, by erecting structural guideposts. Cipriano could move from one motive to another, from one cadence to another, working within self-imposed temporal constraints. Alberti's advice to painters, based on that Cicero gave to orators, comes remarkably close to this process:

practice." This supports Howard Saalman's contention that quattrocento architects were "inextricably tied to preceding Gothic theory and practice" (1959, 89).

<sup>&</sup>lt;sup>21</sup> This passage is taken from the abbreviated quotation in Wittkower 1952, 29, of James Leoni, trans., *The Architecture of Leon Battista Alberti in Ten Books...* (London, 1755). For a helpful discussion of the terms used by Alberti, see Krautheimer 1970, 1:270 and Gadol 1969, 108. Alberti's definition of beauty is usually thought to stem from Vitruvius, but John R. Spencer also suggests Cicero and Quintilian as possible sources (1957, 38, n. 44).

## JOURNAL OF THE AMERICAN MUSICOLOGICAL SOCIETY

We will first make our sketches (*concepti*) and drawings (*modelli*) of the entire "storia" and of each of its parts.... And then we will force ourselves to have every part well thought out in our mind from the beginning, so that in the work we will know how each thing ought to be done and where located. In order to have the greater certainty we will inscribe our drawings (*modelli*) with parallels.<sup>22</sup>

The final admonition to divide the models with parallels probably would have been unnecessary for composers of the fifteenth and sixteenth centuries. So long as the musical segment was not extended, the notation would have served the same function, requiring only that a composer could count enough breves and semibreves to align the parts of one point of imitation, section of homophony, or whatever.

Whether Josquin could manage the complex contrapuntal interactions in *Plus nulz regretz* without some sort of composing score is another question.<sup>23</sup> The often-quoted testimony of Lampadius of Lüneburg suggests that Josquin did sketch separate voices in score. In his *Compendium musices* (1537), Lampadius advises young composers:

For just as poets are stirred by a certain natural impulse to write their verses, having in their minds the subjects that are to be described, so also the composer ought first to think out in his mind musical phrases, indeed very good ones, and to consider them carefully with good judgement lest one note ruin the whole phrase and tire the ears of the listener, and then to proceed to the working out, that is, to distribute in a certain order the phrases that have been thought out and to save those phrases that seem most suitable.<sup>24</sup>

This much is another paraphrase of Cicero, but what follows echoes Alberti. According to Lampadius, the order of distributing voices "is that ancient order that was used and taught by Josquin himself," an order "that the ancients used instead of tablets." To clarify his ambiguous prose, he then provides an example of a Verdelot motet, all four voices laid out in score and inscribed with barlines (facsimile in Lowinsky 1948, 23). The juxtaposition of Ciceronian precepts with an instruction to divide by parallels (or barlines) is the same didactic sequence used a century earlier by Alberti, but instead of *telling* his

76

<sup>&</sup>lt;sup>22</sup> The translation is from Spencer 1956, 96, as modified in Tintori and Miess 1962, 30–31. Spencer elsewhere describes Alberti's debt to Cicero (1957, 37).

<sup>&</sup>lt;sup>23</sup> Lowinsky makes a similar observation about Ockeghem's *Missa Prolationum* (1981, 185-89).

<sup>&</sup>lt;sup>24</sup> This translation is from Owens 1984, 296. It is based on the translation published in Lowinsky 1948, 19, but with important modification. In the next sentences I follow Lowinsky's translation.

readers in so many words, Lampadius shows them with a printed example.

While the form of this passage follows Alberti, the content specifically acknowledges Josquin. If Josquin did indeed use scores marked with some indication of tactus, and further, if he conceived of Plus nulz regretz as an exercise in perspective, then in both cases it is likely that he followed the practice of Dufay rather than the writings of Alberti. Dufay, more than any other musician, had the opportunity to exchange ideas with Alberti. They had both lived in Bologna during the 1420s, and served together at the papal court, first of all in Rome (both perhaps arriving in 1428) and later in Florence (Krautheimer 1970, 1:315-18). Certainly music influenced Alberti, fundamentally shaping his theories of proportion and perspective: "We shall therefore borrow all our rules for harmonic relations from the musicians to whom this sort of numbers is extremely well known. . ." (Wittkower 1952, 97). "Number" here refers to the Pythagorean ratios governing musical intervals. Alberti applied these vertical musical consonances spatially, to derive architectural proportions and linear perspective. In order to insure the exactitude of proportions in art and architecture, Alberti advised artists to follow his practice in checking for errors. He is the first to report using a mirror to verify linear perspective in painting: "it is wonderful how each defect of a painting shows distorted in the mirror";<sup>25</sup> and in architecture, faults in ground-plans emerged by making measured elevations on paper: "... I openly confess that many ideas had frequently come into my mind, in which I found many errors, when I tested them in a larger measure and put them down in lines, even in those parts which delighted me most . . .<sup>226</sup> Lampadius seems to suggest a similar corrective function for the early score format. Phrases first "thought out" in the composer's mind could thus be aligned, checked for errors, and adjusted. Harmonic defects of contrapuntal ideas would "show distorted" in score format, where notes of individual lines were arranged in "measured elevations" to reveal vertical as well as horizontal relationships.

To judge from the structure of Nuper rosarum flores (written the year Della pittura appeared in Italian), Dufay fully understood the architectural, i.e. linear application of musical ratios. Not only are the four sections of the motet related proportionally, but also the melodic lines of each four-voice section are variants of one another, with

<sup>&</sup>lt;sup>25</sup> Krautheimer 1970, 236, n. 21, quotes from Book 3 of Alberti's *Della pittura*.
<sup>26</sup> This passage of *De Re aedificatoria* is discussed in Lang 1965, 334.

expansions or contractions to accomodate the sectional dimensions.<sup>27</sup> They thereby embody in music the theory of perspective Alberti had formulated for art, a theory itself grounded in music theory. In this symbiotic relationship it is difficult to determine who took what from whom. Alberti's influence on musicians has until now been traced primarily through Tinctoris (Lowinsky 1966, 161–64). The possibility that Dufay learned from his illustrious contemporary suggests an influence as significant and enduring among musicians as it was among artists.

Compared to the explicit and detailed discussions of art and architectural theorists in the Renaissance, the comments about compositional planning by music theorists are distressingly vague.<sup>28</sup> Of Lodovico Zacconi's seven aspects of composition, recently discussed by James Haar, arte and buona dispositione come closest to encompassing this sort of planning. Zacconi praised Adrian Willaert, for example, for just these two qualities (Haar 1983, 194). Whether they are also what Zarlino referred to when he called Willaert "a new Pythagoras," we may never know (Istitutioni harmoniche, Proemio, p. 1). Perhaps the most useful implication of Zacconi's remarks is that not all composers excelled at creating musical artifices. By combining his categorizations of composers' strengths with investigations of temporal structure, we may arrive at a more reasoned assessment of what makes the work of one composer distinct from that of another. Where works are stylistically similar, such analyses provide another avenue for distinguishing individualistic traits; where compositions are patently different, they can lead to the discovery of similarities otherwise undetectable. In Plus nulz regretz Josquin applied cadences as the theorists prescribed: to articulate a textual order. But there is no sanction from music theorists for his use of motives as musical, rather than textual, benchmarks. In this dual order the medieval traditions of rhetoric and mathematics combine. Composers, like other artists, took what they could from each.

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<sup>&</sup>lt;sup>27</sup> Among those who have commented on the variations between the motet sections are Lowinsky (1981, 189–91) H. M. Brown (1976, 40–42) and Warren (1973, 101).

<sup>&</sup>lt;sup>28</sup> Here the situation of music historians has less in common with that of historians of art and architecture than with that of literary historians, who also must contend with vague theoretical guidelines on structure during the Middle Ages and Renaissance. Recent studies of literary structure have increasingly raised questions of symmetry and proportion. For a survey of the methods and findings of these analyses, for the most part written since 1960, see Peterson 1976.

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MUSICAL EVIDENCE OF COMPOSITIONAL PLANNING IN THE RENAISSANCE 81

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# ABSTRACT

While much discussed and analyzed, Josquin's setting of *Plus nulz regretz* mimics the structural features of the poem in ways which have gone undetected for two reasons: essential stylistic details of the "Chant nouvel" by Jean Lemaire de Belges have not been identified, and Josquin disguised his musical realization of those details. By first examining the text and comparing it to Lemaire's other surviving "Chant nouvel," and then analyzing the motivic organization of the chanson, the article shows that for every poetic gesture Josquin devised a musical counterpart, chief among which is a concentric organization of motives (*ABCCBA*) to match the rhyme scheme. The hypothesis that Josquin used techniques related to Leon Battista Alberti's methods for determining perspective in art is invoked to explain a striking symmetrical structure of temporal units. This in turn has implications for the way composers throughout the Renaissance planned proportional compositional structures.