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## PSALM-TONE TONALITY IN MONTEVERDI'S VESPERS OF 1610

### ABSTRACT

In questo articolo, viene descritta la messa in polifonia dei Salmi del *Vespro della Beata Vergine* da parte di Monteverdi nel 1610, come composizioni basate sui toni salmodici invece che sulla modalità. Per iniziare si distingue dal punto di vista teorico il concetto di tono salmodico da quello di modo, alla luce di scrittori contemporanei a Monteverdi, come Pietro Ponzio e Adriano Banchieri. In seguito viene illustrato come la descrizione che fa Banchieri delle cadenze dei toni salmodici collima con quella messa in pratica da Monteverdi nel *Dixit Dominus* e nel *Nisi Dominus*. Seguendo questa strada, l'autore propone una teoria di 'relazioni sul sistema di trasposizione' attuato da Monteverdi nelle sue opere basate sui toni salmodici, in modo da spiegare la varietà delle cadenze riscontrabili e il suo approccio alle forme su larga scala.

PAROLE CHIAVE Monteverdi, vespri, *cantus mollis*, *cantus durus*, sistema, toni salmodici, Banchieri, trasposizione

### SUMMARY

In this article, I describe Monteverdi's 1610 psalm settings as psalm tonal, rather than modal, compositions. I begin by distinguishing psalm tone from mode with the help of Monteverdi's contemporaries, Pietro Pontio and Adriano Banchieri. I then illustrate how Banchieri's description of psalm tone cadences matches Monteverdi's cadence practice in *Dixit Dominus* and *Nisi Dominus*. Along the way, I posit a theory of transposition-system relationships for Monteverdi's psalm tone works to explain his cadential variety and his approach to large-scale forms.

KEYWORDS Monteverdi, vespers, *cantus mollis*, *cantus durus*, system, psalm tones, Banchieri, transposition



## Issues with mode in Monteverdi's psalm and canticle settings: an introduction

Giovanni Maria Artusi famously scolded Claudio Monteverdi for his modally confused work, *Cruda Amarili*, writing, «I don't know whether it's in the ordinary seventh [mode] or the twelfth, because there are as many cadences in one as in the other...»<sup>1</sup> Monteverdi's work has been defended by numerous authors, including his own brother who pitied Artusi for not understanding the mixed modes.<sup>2</sup> Since that time, scholars more willingly accept irregular cadences as common in Monteverdi's works, deeming their influence negligible when considering a composition's overall mode.<sup>3</sup> This should hardly seem surprising given our reception of Artusi as a bit of a disgruntled traditionalist, but such a broad approach to modal analysis complicates examinations of Monteverdi's psalm and canticle settings.

Consider Leo Schrade's description of Monteverdi's *Magnificats* from *Vespro della Beata Vergine* (1610): «Both are written in the same 'mode.' If a strict adherence to the mode can be claimed for these works, the first mode undoubtedly prevails»<sup>4</sup> Schrade's scare quotes hint at his reservation with the term 'mode,' further implied by the conditional clause, «if ... mode can be claimed for these works». Nevertheless, Schrade settles on the first mode.

John Whenham's analysis of *Lauda Ierusalem* (also from the *1610 Vespers*) suggests a possible incentive for Schrade's scare quotes, as he writes, «This setting is in Mode 3 ... Monteverdi uses only two of the principal cadence centres of the mode – A and C (the median cadence of the psalm tone; D and F when the psalm tone is transposed). Cadences on E, the final of the mode, are not used».<sup>5</sup> Whenham's observations could certainly warrant scare quotes for 'mode' given the complete absence of cadences to the modal final, E.

These introductory remarks highlight the dubious application of mode for analyzing Monteverdi's psalm and canticle settings. In this article, I posit a different approach inspired by Cristle Collins Judd's essay, «Josquin's Gospel Motets and Chant-Based Tonality».<sup>6</sup> Judd argues that Josquin's gospel motets are not modal, but rather tonal, since the gospel tones serve as their structural basis. Furthermore, she contends that what analysts consider modally irregular cadences are instead proper cadences for the gospel tonalities. Similarly, I

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<sup>1</sup> ARTUSI, *L'Artusi ovvero delle imperfettioni*, p. 11: «Nel Madrigale, Crud' Amarilli, qual tuono osserva? Non so se sia del settimo ordinario, o del duodecimo, perché tanto sono le cadenza dell'uno, quante del l'atro» (translation from POWERS, *Monteverdi's Model*, p. 188).

<sup>2</sup> STRUNK, *Source Readings*, p. 543.

<sup>3</sup> See, for example, discussions of *Cruda Amarilli* in CHAFE, *Monteverdi's Tonal Language*, p. 8ff; MCCLARY, *The Transition from Modal to Tonal Organization*, pp. 160-175.

<sup>4</sup> SCHRADER, *Monteverdi, Creator of Modern Music*, p. 253.

<sup>5</sup> WHENHAM, *Monteverdi: Vespers*, p. 74.

<sup>6</sup> JUDD, *Josquin's Gospel Motet*.

argue that Monteverdi's psalm and canticle settings are based on psalm tones, not modes, and cadences defying a simple modal explanation can be accounted for with psalm tonality. I will analyze two psalm settings from the 1610 Vespers to demonstrate this argument, *Dixit Dominus* and *Nisi Dominus*. In these analyses, I introduce a theory of transposition-system relationships and consider how these relationships contribute to the cadential variety found in Monteverdi's psalm settings. To begin, however, I will present a distinction between mode and tone.

### Mode versus tone

Jeffrey Kurtzman distinguishes psalm tones from modes in his seminal book, *Monteverdi: Vespers 1610*, writing, «While 'modes' represent a theoretical system for classifying melodies, [psalm] 'tones' comprise a set of actual melodies used for the recitation of psalms and canticles». <sup>7</sup> Kurtzman concludes that «the distinction between mode and tone does not imply their separation in Monteverdi's music». His analysis of Monteverdi's *Laetatus sum*, found in the *Cambridge Companion to Monteverdi*, clarifies these remarks as Kurtzman interprets a psalm tone as a melody set *in* a mode. <sup>8</sup> This interpretation, in turn, reflects Kurtzman's psalm tone definition, which downplays the significance of cadences.

Harold Powers discusses the role of cadences for expressing psalm tonality in his influential essay *From Psalmody to Tonality*. <sup>9</sup> He begins with the theorist, Pietro Pontio, who distinguishes psalm tone from mode in *Ragionamento di Musica* (1588). Pontio presents imitative duos representing each mode of the eight-mode system and separate duos representing each of the eight psalm tones. <sup>10</sup> The duos for each psalm tone, unlike those for mode, include complete or near-complete statements of the psalm tone melodies and cadences to the proper notes for each tone. For example, Pontio prescribes cadences to the notes C and A for psalm tone 3, which we find in his imitative duo for that tone (see Example 1).

In Pontio's mode 3 duo (see Example 2), by comparison, he includes cadences to the 'primary cadence' notes for that mode, E and A, the transitory cadence note, G, and the irregular cadence, D. <sup>11</sup>

Crucially, Pontio ends his modal duo with a cadence to the final of the mode, E, whereas his psalm tone 3 duo ends with the final cadence for the

<sup>7</sup> KURTZMAN, *The Monteverdi Vespers of 1610*, p. 200.

<sup>8</sup> KURTZMAN, *Intermedio III*, pp. 155-161.

<sup>9</sup> POWERS, *From Psalmody to Tonality*, pp. 275-340.

<sup>10</sup> PONTIO, *Ragionamento di Musica*, pp. 99-121.

<sup>11</sup> Pontio does not supply D as a viable cadence for modes 3 or 4, so I have termed it irregular here. Pontio tell us that his duo for mode 3 represents both modes 3 and 4, as each share the same cadence notes.

tone, A. Pontio's psalm tone 3 melody is not set in mode 3; rather, the psalm tone melody along with its cadences represent a distinct psalm tonality.

Example 1. Pontio, *Ragionamento di Musica*: duo for psalm tone 3 «Essempio della imitatione, cadenze, mediata, & fine de' Salmi del terzo Tuono»

Musical score for Example 1, showing three systems of piano accompaniment for psalm tone 3. The first system (measures 1-8) has cadences in C and A. The second system (measures 9-16) has a cadence in A. The third system (measures 17-24) has a cadence in A.

Example 2. Pontio, *Ragionamento di Musica*: duo for mode 3 «Essempio delle cadenza de' Motetti del terzo Tuono»

Musical score for Example 2, showing three systems of piano accompaniment for mode 3. The first system (measures 1-8) has a cadence in E. The second system (measures 9-16) has cadences in D, A, and G. The third system (measures 17-24) has a cadence in E.

The following table summarizes Pontio's prescribed cadence notes for each psalm tone.<sup>12</sup> These cadence notes are used to punctuate the psalm tone melody at the end of mediation (the mediant cadence note) and at the end of the *differentia* (the final cadence note).<sup>13</sup> By the time Pontio was writing, the numerous *differentiae* endings available for each psalm tone had been reduced to a standard set, so that Pontio indicates a single final for each psalm tone.

Table 1. *Pontio's psalm tone cadences*

PSALM TONE	MEDIANT	FINAL
1	A	D
2	F	D
3	C	A
4	A	E
5	C	A
6	A	F
7	E	A
8	C	G

Powers connects the psalm tone tradition exemplified by Pontio to Adriano Banchieri whose work marks a significant moment for the development of psalm tonality. Banchieri begins by presenting the psalm tone melodies in his treatise, *Cartella musicale*.<sup>14</sup> Unlike Pontio, however, he notes that some of these melodies are commonly transposed so that the reciting note is in a more comfortable range for choirs. He presents these transposed melodies on the next page of the treatise<sup>15</sup> These transposed versions of the psalm tone melodies are the ones Monteverdi uses, and by 1610 had become standard.<sup>16</sup>

<sup>12</sup> Gioseffo Zarlino provides the same psalm tone mediant cadence notes in ZARLINO, *Le istituzioni harmoniche*, p. 321.

<sup>13</sup> A *differentia* refers to the melodic formula used to conclude a psalm tone melody.

<sup>14</sup> In all treatise's editions, p. 70. Only the 1614 edition of Banchieri's treatise is titled *Cartella musicale*. It is, however, the third edition of the two earlier treatises, *Cartella overo Regole utilissime* (1601), and *La Cartella del R.P.D. Adriano Banchieri* (1610).

<sup>15</sup> BANCHIERI, *Cartella musicale*, p. 71.

<sup>16</sup> DODDS, *Tonal Types and Modal Equivalence*, p. 342. Banchieri's *differentia* finals have caused considerable speculation regarding their function. Powers, for example, notes that the finals for psalm tones 3, 5, and 7 do not match the modal finals of the antiphons that would be used in *alternatim* performance. An alternative view is provided by Rodobaldo Tibaldi, who argues that Banchieri's finals do in fact match antiphonal modal finals. See POWERS, *From Psalmody to Tonality*; TIBALDI, *Sulla prassi liturgico-musicale*. In this article, I am concerned with the expression of a psalm tonality, rather than the function of a psalm tone in *alternatim*. For a discussion of Monteverdi's 1610 psalm settings and *alternatim* performance see KURTZMAN, *The Monteverdi Vespers of 1610*, pp. 56-78.

Beside each psalm tone melody Banchieri includes the cadence notes proper to the tone (see Figure 1).<sup>17</sup> Whereas Pontio includes the two normal cadence notes per tone, Banchieri includes three, indicating an influence from Zarlino's modal cadence theory.<sup>18</sup> This influence should not be confused with a conflation of psalm tone and mode, which Banchieri views as distinct.

Intonazione      Mezo et Fine      Cadenze

[PT1]

[PT2]

[PT3]

[PT4]

[PT5]

[PT6]

[PT7]

[PT8]

Figure 1. Banchieri's psalm tone melodies and cadences for the eight tones «Trasportato alle composizioni corista del Figurato»<sup>19</sup>

<sup>17</sup> «Overo» cadences have different meanings depending on the tone. For tone 4, the overo cadences account for the note B, which cannot serve as a proper cadence in more than two voices. Therefore, cadences to the notes A and C should be used instead. For tones 3 and 8, the overo cadences indicate alternative transpositions of the psalm tones, each down another whole step to G and F, respectively. Michael Dodds shows how these alternative transpositions become standard later in the century. See DODDS, *Organ improvisation*, especially pp. 33-34.

<sup>18</sup> Banchieri's arrangement of ascending and descending cadences also mimics Zarlino's cadence illustrations to represent authentic and plagal modes, respectively ZARLINO, *Le istituzioni harmoniche*, p. 310.

<sup>19</sup> BANCHIERI, *Cartella musicale*, p. 71.

He makes this distinction clear when he writes that «the eight tones may be used in masses, psalms, hymns, canticles, and other compositions alternated with plainchant, and the twelve modes [may be used] for composing *concerti*, [*canzone*] *francese*, toccatas, madrigals, and, in sum, any song [*cantilena*] that has nothing to do with plainchant».<sup>20</sup> Banchieri further demonstrates this distinction with an exemplary duo for each psalm tone, just as Pontio had. For the sake of comparison with Pontio's duo shown above, here is Banchieri's duo for psalm tone 3:

Example 3. Banchieri, *Cartella musicale*: duo for tone 3 «duo del terzo tuono ecclesiastico»

Like Pontio, Banchieri includes cadences on A, the final of the tone, and C, the mediation, but unlike Pontio, he also cadences to E, reflecting the three-note cadence theory.

As Powers notes, Banchieri's duo does not quote the psalm tone 3 melody. By the time Banchieri published the first edition of his treatise in 1601, a psalm tonality could be expressed solely with cadences and no longer required the psalm tone melody. This fact is further evinced by *falsobordone* psalm settings around 1600, which often did not quote the psalm tone melodies.<sup>21</sup>

Banchieri's psalm tone description and duos reflect two important features of psalm tonality for Monteverdi scholars. First, a psalm setting may include a psalm tone melody but it also may not, in which case cadences express the

<sup>20</sup> BANCHIERI, *Cartella musicale*, p. 88: «che gl'otto Tuoni possino servire alle Messe, Salmi, Hinni, Cantici, & altre Musiche alternanti al Canto Fermo, & gli dodici Modi, per compuonere Concerti, Franceze, Toccate, Madrigali, & in somma ogni Cantilena discrepante al Canto Fermo». Translated in CRANNA, *Adriano Banchieri's «Cartella musicale»*, p. 218.

<sup>21</sup> BRADSHAW, *The Falsobordone*, pp. 59-61.

psalm tone. Second, Banchieri's psalm tone cadences reflect the influence of modal theory, but were nevertheless understood as distinct – a distinction clearly seen in tone 3 settings, which conclude with the cadence note A (tone 3 final), not E (mode 3 final).

In summary, to structure a piece in a psalm tone, opposed to a mode, means composing in accordance with the cadences proper to the psalm tone, and if the melody is present, composing the harmony and counterpoint in relation to that melody (like Pontio's tone 3 duo). To exemplify Monteverdi's approach to psalm-tonal composition, I will begin with a more thorough discussion of Banchieri's psalm tone cadences and then analyze *Dixit Dominus*.

### Banchieri's cadence notes and polyphonic psalm tonality

Following his initial presentation of psalm tone cadences in *Cartella musicale* (Figure 1 above), Banchieri introduces two practical changes accounting for the unsuitability of B as a cadence note in more than two voices: psalm tone 4 should cadence on the notes A and C, not B,<sup>22</sup> and, likewise, psalm tone 8 should cadence on the note C, not B. These changes, along with a categorization of Banchieri's psalm tone cadences as mediant, final, and optional, are shown in the following table:

Table 2. *Banchieri's psalm tone cadences*

PSALM TONE	MEDIANT	FINAL	OPTIONAL
1	A	D	F
2	B <sub>b</sub>	G	D
3	C	A	E
4	A	E	C
5	G	C	E
6	A	F	C
7	A	D	F
8	C	G	D

<sup>22</sup> In contrast to Banchieri, Zarlino stresses that B is a regular cadence note for modes 3, 4, 7, and 8, even in compositions including more than two voices (ZARLINO, *Le istituzioni harmoniche*, p. 324). He notes, however, that mode 3 compositions often include cadences to A and mode 4 compositions often include cadences to C (p. 324).

This categorization reflects Banchieri's use of cadence notes in his *Magnificat* versets from *L'Organo suonarino*.<sup>23</sup> The cadence notes – mediant, final, and optional – are used as follows: when the psalm tone melody is being set, the mediant and the final cadence notes must mark the middle and ends of the melody; when the psalm tone melody is absent, the three cadences notes may be used more freely throughout the setting, but the setting must end with the proper final cadence note.<sup>24</sup>

So far, I have referred to Banchieri's cadences as notes, matching his description. Monteverdi composes cadential chords in his psalm settings, however, so I need to describe how a cadence note is represented chordally. Banchieri's and Pontio's duos offer little help in this regard, as their two-voice settings cadence consistently to octaves or unisons. Instead, I rely on Murray C. Bradshaw's study of *falsobordone* psalm settings around 1600,<sup>25</sup> which lend the following observations: final cadence chords are always built on roots matching Banchieri's final cadence notes; mediant chords are usually structured the same way, but occasionally a cadence note appears as the third or fifth, rather than the root, of the chord.<sup>26</sup>

These observations account for Monteverdi's practice, as nearly all of Monteverdi's cadences in the 1610 psalm settings are structured on roots matching Banchieri's cadence notes. The only exceptions are mediant cadences in *Nisi Dominus*, which Monteverdi consistently evades or avoids – a point I will address later. To illustrate this statement, I will now examine Monteverdi's *Dixit Dominus*, considering how his cadences align with Banchieri's theory. I will address Monteverdi's cadence treatment both when the psalm tone melody is present and when it is absent. The analysis will ultimately lead to a discussion of psalm tone transposition-system relationships and how these contribute to cadential variety in *Dixit Dominus*.

### *Dixit Dominus*: psalm tone, cadences, and a troubling doxology

*Dixit Dominus* is the first psalm setting in Monteverdi's 1610 collection, and is written for six-voice choir, continuo, and instrumental ensemble.

<sup>23</sup> Banchieri supplies his own terms to categorize psalm tone cadences – *mezana*, *indifferente*, and *finale* – which he defines in BANCHIERI, *L'Organo suonarino*, p. 40. He applies these terms inconsistently across his two treatises (*Cartella* and *L'Organo*), so I have not used them here.

<sup>24</sup> These observations represent Banchieri's psalm tone cadence practice in his two treatises (*Cartella* and *L'Organo*), and also account for the practice found in many *falsobordone* around this time. See, for example, VIADANA, *Per sonar nell'organo li cento concerti ecclesiastici*.

<sup>25</sup> BRADSHAW, *The Falsobordone*.

<sup>26</sup> Bradshaw does not relate *falsobordone* cadences to Banchieri's theory (BRADSHAW, *The Falsobordone*, pp. 61-62). Rather, I have applied his observations to Banchieri.

Monteverdi bases the work on psalm tone 4, for which Banchieri prescribes the cadences A, E, and C:

Example 4. Psalm tone 4 and cadences



Monteverdi structures much of work as an alternation between sections built around the psalm tone melody as a *cantus firmus* and sections inspired by *falsobordoni passeggiati* (defined below), which do not include the psalm tone melody. He notes that the *ritornellos* may or may not be included; if included, they follow the first three *falsobordone* sections.<sup>27</sup>

The following form table (Table 3) shows how Monteverdi's cadence chords align with Banchieri's prescribed cadence notes until the *doxology* – a moment also coinciding with a change of signature.<sup>28</sup> Since my analysis hinges on cadences, I will start by defining what I consider a cadence in Monteverdi's 1610 psalm settings, before addressing specific moments in the composition.

Table 3. Dixit Dominus formal summary

MEASURES	VERSES	SECTIONS	CADENCES	SIGNATURE	
1–22	1	<i>Cantus Firmus</i>	A E		
23–45	2	<i>Falsobordone</i>	C A		
46–52	Instrumental	<i>Ritornello</i>	A		
53–84	3	<i>Cantus Firmus</i>	A E		
85–108	4	<i>Falsobordone</i>	C A		
109–113	Instrumental	<i>Ritornello</i>	A		
114–143	5	<i>Cantus Firmus</i>	A E		
144–159	6	<i>Falsobordone</i>	C A		
160–164	Instrumental	<i>Ritornello</i>	A		
165–198	7	<i>Cantus Firmus</i>	A E		
199–214	8	<i>Falsobordone</i>	C A		
215–227	Doxology	«Gloria patri ...»	G D		b
228–258	Doxology	«Sicut erat ...»	D A E		c

<sup>27</sup> «Li Ritornelli si ponno sonar, et anco tralasciar secondo il volere».

<sup>28</sup> Measure numbers used throughout this article are in accordance with the critical edition of Monteverdi's Vespers edited by Antonio Delfino (MONTEVERDI, *Missa da Capella a sei, Vespere della Beata Vergine*, ed. Delfino).

Monteverdi uses two types of cadential progression in his psalm settings: what I call *perfect* and *plagal*. A perfect progression includes a standard two-part *clausula*, moving intervallically 6-8 or 3-1, which Monteverdi often accompanies with a lower voice leaping to the final by perfect fifth down or perfect fourth up.<sup>29</sup> Monteverdi uses a perfect progression to approach the mediant cadence chord in the first verse of *Dixit Dominus*, for example:

Example 5. Perfect cadence, *Dixit Dominus*, mm. 14–15 (reduction)

14  
3 to 1  
Choir  
me - o:  
5th down

A plagal progression results when one voice holds the final constant while the lowest voice leaps a perfect fifth up or perfect fourth down to the final; in modern terms, a progression from IV-I or iv-I. Monteverdi concludes *Dixit Dominus* with a plagal progression to the final cadence chord, E major (Example 6).

Example 6. Plagal cadence, *Dixit Dominus*, mm. 256–258 (reduction)

256  
Final held in same voice  
Choir  
a - men.  
5th up

Monteverdi ends all cadential progressions – whether perfect or plagal – with a major chord.<sup>30</sup>

In addition to these two types, Monteverdi uses two plagal variants in *Dixit Dominus* to accommodate the unusual, melodic minor third ending of the psalm tone melody:

Example 7. Psalm tone 4 cadential accommodations

Psalm Tone 4 - *Differentia*  
or: C+ to E+  
G+ to E+

<sup>29</sup> KURTZMAN, *The Monteverdi Vespers of 1610*, p. x; p. 232.

<sup>30</sup> This common rule appears in many contemporary treatises, such as AGAZZARI, *Del sonare sopra 'l basso*, p. 6.

This falling third cannot be harmonized by a standard perfect or plagal progression, so Monteverdi either progresses from a C-major to E-major chord, or a G-major to E major chord; the former when the psalm tone melody is set as an upper part, the latter when the melody is set as the lowest sounding part.

The first progression, C major to E major, is not unique to Monteverdi and appears in Banchieri's Magnificat verset setting for tone 4 (Example 8). Unlike his duo shown earlier, Banchieri's Magnificat setting includes a quotation of the psalm tone, marked × in the example. He concludes the first verse of the setting with a progression from a C-major chord to an E-major chord – these would be filled in by the organist.

Example 8. *Magnificat*, Verse 1, «Anima mea Dominum», from Banchieri, *L'Organo suonarino*, pp. 96-97

Musical score for Example 8. The Soprano part is in treble clef with a common time signature. The Basso part is in bass clef with a common time signature. The lyrics are: A - ni - ma me - a Do - mi - num. A - ni - ma me - a A - ni - ma me - a Do - mi - num. The Soprano part has 'x' marks above the notes for 'ni', 'ma', 'me', 'a', 'Do', 'mi', and 'num'. The Basso part has 'C+' and 'E+' labels under the final two notes.

Monteverdi uses this same progression in *Dixit Dominus* to conclude the first verse:

Example 9. Monteverdi, *Dixit Dominus*, mm. 17-22

Musical score for Example 9. The score is for six voices: Cantus, Sextus, Altus, Tenor, Quintus, and Bassus. The Sextus part has 'x' marks above notes corresponding to the psalm tone. The Bassus part has a label "'Plagal Third': C+ E+" under the final two notes.

Notice that the final, *e*, is held constant between the two chords of the progression (Cantus and Tenor), as in a standard plagal cadence, but the bass

leaps up a third to *e*. Monteverdi smooths out the chromatic cross-relation, *g-g#*, by presenting the chromatic step in the same voice (Quintus).

Since this progression shares features of a plagal cadence, I call it the ‘plagal third’ progression. The progression is unique to psalm tone 4; it is not found, to my knowledge, in modal works, and results from harmonically accommodating the end of the psalm tone melody.

Moving to the second plagal variant, Monteverdi often treats the psalm tone melody as the lowest sounding voice in *Dixit Dominus*, as in his setting of Verse 2:

Example 10. *Dixit Dominus*, mm. 80-84 (reduction)

The musical score consists of three staves. The top staff is a vocal line with a treble clef, showing a melodic line with eighth and quarter notes. The middle staff is a middle voice line with a treble clef, showing a harmonic accompaniment with quarter and eighth notes. The bottom staff is a bass line with a bass clef, showing a harmonic accompaniment with quarter and eighth notes, and a figured bass line below it. The figured bass line is labeled "Plagal 6/4": G, E<sub>5</sub><sup>7</sup>-(A<sub>4</sub><sup>6</sup>)-E<sub>3</sub><sup>5</sup>. The music is in 6/4 time and ends with a final cadence chord.

As the bass moves from *g* to *e*, Monteverdi retains the *b-d* dyad of the G-major chord. The *d* of this dyad becomes a dissonant seventh against the E bass and must resolve down by step. Monteverdi moves the lower voice of the dyad as well, progressing from *b-d* to *a-c*. Consequently, an A-minor 6/4 chord results, imparting the progression with some plagal flair. The *a* of this A-minor 6/4 chord is a dissonant fourth against the bass E, however, and so Monteverdi resolves the dyad again down by step: *a-c* to *g#-b*. The progression ends with an E major, final cadence chord.

Monteverdi’s clever voice leading transforms a simple harmonic move from a G-major to an E-major chord into a feigned plagal cadence, which I call the ‘plagal 6/4’ progression. Monteverdi seemed to enjoy this contrapuntal maneuver as it appears multiple times in *Dixit Dominus*.<sup>31</sup>

The cadential progressions defined above end with the cadence chords outlined in the form table (Table 3, above). When the psalm tone melody is present, Monteverdi marks the middle and ends of psalm verses with mediant and final cadence chords (A and E, respectively). When the melody is not present, in the *falsobordone* sections, he uses Banchieri’s optional C major cadence, and ends the sections with an A major cadence. This practice matches the discussion of psalm tone cadences earlier. I noted that the mediant and final cadence chords must be used to mark the middle and end of the psalm tone melody when it is present, but when it is absent, cadence chords may be

<sup>31</sup> See for example, mm. 73-75; 141-143.

used more freely – such as ending an internal section with an A major chord, opposed to E major. The only exception is the final cadence of the setting, which must be the final cadence chord (E major).

Moving to specific sections now, Monteverdi sets Verse 1 using the psalm tone melody as a *cantus firmus* throughout. He marks the middle and end of the verse with the proper mediant and final cadences (Figure 2).

Verse 1: Dixit Dominus Domino meo: sede a dextris meis		
	Cad: A (m. 15)	Cad: E (m. 22)

Figure 2. *Dixit Dominus*, Verse 1 cadences

His Verse 1 setting reflects the structure of the psalm tone melody, as Monteverdi rocks back and fourth between A minor and E major harmonies resulting from overlapping statements of the melody. The E major harmonies result from a common change to the psalm tone melody, replacing g with g<sup>#</sup>, which occurs in numerous contemporary Italian settings of tone 4.<sup>32</sup>

Example 11. *Dixit Dominus*, mm. 1-7 (reduction)

Choir

Di - xit Do - mi - nus Do - mi - no me - o

Di - xit Do - mi - nus Do -

A- E+ A- E+ A- E+ etc...

mi - no me - - o

mi - no me

Monteverdi's setting of Verse 2 provides more cadential variety, as he includes Banchieri's optional cadence to C (Figure 3).

Verse 2: Donec ponam inimicos tuos: scabellum pedum tuorum		
	Cad: C (m. 37)	Cad: A (m. 45)

Figure 3. *Dixit Dominus*, Verse 2 cadences

<sup>32</sup> See for example, SEVERI, *Salmi passaggiati*, Orlando Lasso, *Falsobordone* in LASSO, *Sämtliche Werke*, and BANCHIERI, *L'Organo suonarino*, p. 96 (Example 8, above).

Rather than use the psalm tone melody, Monteverdi composes the section as a polyphonic reimagining of a *falsobordone passeggiate* – a more elaborate version of traditional, homorhythmic *falsobordone*. Monteverdi’s Mantuan contemporary, Ludovico Viadana, included a number of these works for each voice type in his *Cento Concerti Ecclesiastici* (1602). His Cantus setting in tone 4 is representative of the genre:

Example 12. Viadana, *Cento Concerti Ecclesiastici* (1602): psalm tone 4 *Falsobordone Passeggiate*

Del quarto tono:

[Cantus] Donec ponam ini-mi - cos tu os,

[Basso] A- Cad: C+

scabellum pe - dum tu - o rum.

G+ Cad: A+

Viadana divides the psalm verse into two halves, and each half begins with recitation over a continuo chord. The recitation soon gives way to more elaborate passagework before cadencing – first to C, then to A. Viadana’s A major cadence represents an A-final psalm tone 4, the second-most common *differentia* ending for psalm tone 4 after E.<sup>33</sup> I have included this setting for comparison with Monteverdi’s polyphonic reimagining of the genre, as Monteverdi’s harmonic plan follows Viadana’s closely (Example 13).

Monteverdi, like Viadana, begins with the choir reciting over an A minor chord (Example 13, m. 23). This recitation gives way to a *stretto fuga* – Monteverdi’s polyphonic adaptation of the *passeggiate* – and leads to a perfect, C major cadence.<sup>34</sup> Monteverdi then begins the second half of the phrase with the choir reciting over a G-major chord (Example 13, m. 38), exactly as Viadana does, before leading to another *stretto fuga* and a cadence to A major.

<sup>33</sup> Viadana includes two settings for psalm tone 4 for each voice type, one ending on A, the other on E.

<sup>34</sup> *Stretto fuga*, coined by John Milson, refers to a canon at the fifth that follows a set of simple rules and that occurs a time interval of one note in note-against-note counterpoint. For more on this topic see MILSON, ‘*Imitatio*’, ‘*Intertextuality*’, and *Early Music*; SCHUBERT, *Modal Counterpoint* especially p. 156ff, and CUMMING – SCHUBERT, *The Origins of Pervasive Imitation*.

Example 13. Monteverdi, *Vespro della beata Vergine: Dixit Dominus*, mm. 23-45 (*falsobordone* section)

The musical score is divided into three systems. The first system (measures 23-28) is labeled 'Recitation' and 'Stretto fuga'. It features six vocal parts: Cantus, Sextus, Altus, Tenor, Quintus, and Bassus. The lyrics are: 'Donec ponam inimicos Do - nec ponam inimicos Do - nec ponam inimicos tu -'. The second system (measures 29-37) continues the vocal parts with lyrics: 'tu - os: tu - os: os: tu - os: os:'. The third system (measures 38-45) is also labeled 'Recitation' and 'Stretto fuga', and includes a 'Cad: C+' marking. It features six instrumental parts (likely lutes or violins) with the lyrics: 'scabellum pedum tu - o - rum, tu - o -'. The score includes various musical notations such as clefs, time signatures (3/2 and 3/4), and dynamic markings.

Example 13 (cont.)

42 -

rum.

rum.

rum.

rum.

rum.

rum.

Cad: A+

Monteverdi's A major cadence marks the end of an internal section of an overall psalm tone 4, E-final composition. His harmonic plan resembles Viadana's, but it is important to note that the latter composer's work is a psalm tone 4, A-final piece.<sup>35</sup> It is interesting, however, to compare their similar harmonic strategies considering their joint tenure in Mantua.<sup>36</sup>

Following the *falsobordone*-inspired Verse 2, Monteverdi includes an optional instrumental *ritornello* based on the preceding *falsobordone* music and concluding with an A major cadence.

He sets the next five verses in a similar manner to the three sections discussed so far, including variations and embellishments, but always with the same cadences: A major, C major, and E major. For the doxology, however, Monteverdi introduces variety to the setting, cadencing to G major and D major.

Example 14. *Dixit Dominus*, «Gloria Patri», mm. 215-227

215 PT4-D 221 227

Tenor

Glo - ri - a Pa - tri et Fi - li - o et Spi - ri - tu - i Sanc - to.

Bassus Generalis

Cad: G+

Cad: D+

Whenham describes the doxology in modal terms, writing, «The doxology is particularly interesting from the point of view of tonal manipulation.

<sup>35</sup> Viadana's E-final tone 4 *falso bordoni passeggiati* are also notable, as Viadana cadences to only A, C, and E, consistent with Banchieri's psalm tone cadences.

<sup>36</sup> STEVENS, *Monteverdi in Venice*, p. 81.

Monteverdi's decision to transpose the psalm tone to begin on G at bar 114 [m. 215], with a G minor harmony that stands well outside the norms of Mode 4, is startling». <sup>37</sup> Kurtzman adds a further observation, remarking how «at the beginning of the doxology the solo *cantus firmus* appears in long notes a step lower on *g* in *cantus mollis*». <sup>38</sup>

Monteverdi's cadences to G major and D major seem to defy the norms of mode 4, to use Whenham's language. His change of signature also proves troubling for a modal analysis: has the mode changed at this moment or does the signature change not affect the mode? Most importantly for my purposes, cadences to G major and D major do not accord with Banchieri's prescribed cadences for psalm tone 4. So what is Monteverdi up to?

Monteverdi provides two important clues in the doxology that indicate psalm tonal rather than modal thinking. First, the change of signature, and second, the transposition of the psalm tone melody. In the next two sections of the article, I develop a theory of psalm tone and system relationships to explain these clues, followed by an application of this theory to the doxology.

## A system theory for the early 17th century

By 1600, musicians agreed on a standard background pitch collection serving as the basis of their compositions. <sup>39</sup> They described this pitch collection as comprising two systems, *cantus durus* and *cantus mollis*. Commonly, this background collection was represented as a set of two scales: one ascending and descending with  $b\sharp$  (*durus*), the other ascending and descending with  $b\flat$  (*mollis*).

For example, Girolamo Diruta used this representation in his organ treatise, *Il Transilvano* (1597; see Example 15). <sup>40</sup> This two-system conception was by no means specific to keyboardists and appears at the beginning of many solo monody collections to assist amateur guitar accompanists. For example, we find the systems represented at the beginning of Alessandro Grandi's book of arias, *Cantade et arie* (1627; see Example 16).

Grandi – or perhaps his publisher, Alessandro Vincenti – represents the two systems (*durus* and *mollis*) like Diruta: a scale with  $b\sharp$  («per B. Quadro»)

<sup>37</sup> WHENHAM, *Monteverdi: Vespers*, p. 62.

<sup>38</sup> KURTZMAN, *The Monteverdi Vespers of 1610*, p. 215.

<sup>39</sup> This pitch collection has been described differently by numerous authors, each with their own analytical purpose. See for example BURNETT – NITZBERG, *Composition, Chromaticism, and the Developmental Process*; POWERS, *From Psalmody to Tonality*; CROOK, *Tonal Compass*, pp. 286-306; CHAFE, *Monteverdi's Tonal Language*.

<sup>40</sup> Diruta uses black notes, in contrast to the white notes, to illustrate hexachord mutations in this example. Each black note should be sung on the same syllable: ascending, the syllable is «re»; descending, the syllable is «la». Hexachordal mutation does not relate to the theory laid out in this section, so I will not discuss it further.

and a scale with *b*, («per B. Molle»). Vincenti also includes viable accompaniment chords for each step of the scale, written in Alfabetto notation.<sup>41</sup>

In addition to the basic, two-system framework, musicians understood a distinction between *natural* and *accidental* semitones. A natural semitone, according to Diruta, is any unaltered semitone found in a system. In *durus*, these are *e-f* and *b-c*; in *mollis*, *e-f*, and *a-b*. In contrast, semitones arising from a change to the background pitch system are deemed accidental semitones.<sup>42</sup> Diruta provides an example in *durus* (see Example 17).

Example 15. Two background pitch systems (*durus*, left; *mollis*, right), from *Diruta, Il Transilvano* (1597), pp. 7-8

Cantus durus Cantus mollis

In the text, Diruta explains that the «#» signs indicate the possible alterations used to form accidental mi-fa semitones between *c#-d*, *f#-g*, and *g#-a*.

Focusing on natural semitones for a moment, I want to draw attention to the fact that each system, *durus* and *mollis*, includes the natural *e-f* semitone. The natural semitones that are unique to each system then are *b-c* in *durus*, and *a-b*, in *mollis* – these only exist naturally in one or the other system. Consequently, I will refer to these as *characteristic semitones* since they distinguish the *durus* from the *mollis* system (Example 18).

<sup>41</sup> Alfabetto notation refers to a standardized system of letters that represent chords. The notation was extremely popular in Venetian monody prints around 1600. See for example, TOMLINSON, *Italian Secular Song*, vols. 6 and 7. For a more thorough discussion of *alfabetto* notation see TYLER, *The Role of the Guitar*.

<sup>42</sup> Even before the turn of the 17<sup>th</sup> century, this understanding of natural versus accidental semitones was well known, as Gioseffo Zarlino implies the same distinction in (ZARLINO, *Le istituzioni harmoniche*, p. 317ff).

Example 16. Two systems, *durus* («per B. Quadro») and *mollis* («per B. Molle»), from Grandi, *Cantade et arie* (1627), p. 3

**ALFABETTO ET INTAVOLATVRA**  
PER LA CHITARRA ALLA SPAGNOLA:

Scala di Musica per B. Quadro.  
A D A B C F G A D

Scala di Musica per B. Molle.  
G D H B E F G O D H

Example 17. Natural and accidental semitones in *durus*, from Diruta, *Il Transilvano*, vol. I, p. 10

Example 18. Shared natural semitones compared to characteristic (natural) semitones in each system

*Cantus Durus*

*Cantus Mollis*

Moving to accidental semitones, they are formed from a few very specific accidentals allowed in each system. On this matter, I defer to Banchieri, who writes:

In the clef with  $b$ , besides the two sharps on the notes  $f$  and  $c$ , there can occur a flat on the note  $e$  mi ... Also, when this sign  $\sharp$  is indicated on the note  $ba$  [ $b\sharp$ ], then one says  $bi$  [ $b\sharp$ ] ... Similarly, in the clef with  $b\sharp$ , there can occur the two aforementioned sharps [ $f\sharp$  and  $c\sharp$ ], and also another sharp, on  $g$ ... And likewise [there can occur] a flat on the note  $bi$ , in place of which one says  $ba$ , changing the note  $b\sharp$  to  $b\flat$ .<sup>43</sup>

To clarify, Banchieri enumerates in this quote the allowable accidental notes in *mollis* and *durus* systems. In *mollis*, he notes that  $b\sharp$ ,  $f\sharp$ ,  $c\sharp$ , and  $e\flat$  are allowed; in *durus*,  $f\sharp$ ,  $c\sharp$ ,  $g\sharp$ , and  $b\flat$ . These accidentals create what Diruta would term accidental mi-fa semitones. Banchieri illustrates his comments in the following example:

Example 19. *Durus* and *mollis* (top) and allowable accidentals in each system (bottom), from Banchieri, *Cartella musicale*, p. 92

The image displays musical notation for Example 19, illustrating the Durus and mollis systems. It consists of two main parts: the top part shows the Durus and mollis systems, and the bottom part shows allowable accidentals in each system. The notation includes staves with notes, fingerings (1-5), and solmization syllables (Vire, Remi, Mi fa, Fa fol, Sol la, La fol, Mire, Revt). The bottom part shows accidentals (sharps and flats) on notes, with some notes marked with 'x' to indicate specific accidentals.

<sup>43</sup> BANCHIERI, *Cartella musicale*, p. 22. «In questa chiave di b.molle oltre gli dui diesis nelle corde di F & C vi scorre un b.molle nella corda di E mi ... Segna si ancora questo segno  $\sharp$  nella corda ba, & all' hora dicesi bi, cioè mutare fa in mi ... Similmente nella chiave di  $\sharp$  quadro vi scorrono gli dui  $\sharp$  diesis sudetti & similmente un altro nella G ... Similmente ancora un b.molle nella corda bi in luoco della cui dicesi ba, mutandosi tal corda  $\sharp$  in b». Translated in CRANNA, *Adriano Banchieri's «Cartella musicale»*, p. 99. Banchieri uses the somization syllables «ba» and «bi» in this quote, which relate to his 'heptasyllabic' solmization system. «Ba» is B $\flat$  and «bi» is B $\sharp$ . For Banchieri's description of this solmization system see (BANCHIERI, *Cartella musicale*, p. 18ff).

In the top half of the diagram, Banchieri presents the two systems, *cantus durus* (top) and *cantus mollis* (bottom), in their unaltered form.<sup>44</sup> Below, he illustrates the allowable accidentals in each system, mentioned in the quote above.

In the accompanying text, Banchieri's fictional pupil asks his master why there is no *e<sub>b</sub>* in *durus* or *g<sup>#</sup>* in *mollis*.<sup>45</sup> The master replies that it is a rule of strict counterpoint that in *durus* *e<sub>b</sub>* is avoided, just as in *mollis* *g<sup>#</sup>* is avoided.<sup>46</sup>

Combining Banchieri's and Diruta's insights, the following example summarizes the systems, their characteristic semitones, and their allowable accidentals.<sup>47</sup>

Example 20. Two system summary of *cantus durus* and *cantus mollis*

The diagram consists of two musical staves. The top staff is labeled 'Cantus Durus' and shows a scale of white notes (C-D-E-F-G-A-B) with a characteristic semitone (mi-fa) shown as a black note (F) and a white note (G). The bottom staff is labeled 'Cantus Mollis' and shows a scale of black notes (C-D-E-F-G-A-B) with a characteristic semitone (mi-fa) shown as a white note (F) and a black note (G). Both systems have columns for 'Characteristic mi-fa' and 'Accidentals'.

The two systems are represented on the left as scales. The second column shows the characteristic (natural) mi-fa semitones in each system, and the rightmost column indicates the allowable accidentals. Notice that in *cantus mollis*, there is no allowable *g<sup>#</sup>*, and in *cantus durus* there is no allowable *e<sub>b</sub>* – just as Banchieri told his fictional pupil.

<sup>44</sup> White notes indicate tones and black notes indicate semitones.

<sup>45</sup> BANCHIERI, *Cartella musicale*, p. 89. «De gl'accidenti che cangiano il Tuono in Semituono, & per contrario il Semituono in Tuono, resto chiaro, una difficulta vi scuopro. pero nella chiave di G.sol re ut, il quinto Tuono maggiore sol la & per contrario la sol, & apresso nella chiave C.sol fa ut, l'istesso Tuono non hà cangiato in Semituono, onde deriva?» TRANSTED in CRANNA, *Adriano Banchieri's «Cartella musicale»*, p. 227: «I am clear concerning the accidentals which change the tone into a semitone and, contrarily, the semitone into a tone. But I must present a question to you: In the clef of G sol re ut, on the fifth [step], the major tone so la, and the contrary la sol, and also in the clef of C sol fa ut, on the same tone, you have not changed them into semitones. Why is that?».

<sup>46</sup> *Ibid.*: «Questo nasce perche è regola di osservato contrappunto nelle composizioni di ♯ quadro non praticare il b.molle, nella corda E. e nelle composizioni di b.molle non usare il ♯ nella corda G. tutta volta che le parole per imitazione non ricercassero tale accidente si come da gli moderni compositore viene praticato». Translated in CRANNA, *Adriano Banchieri's «Cartella musicale»*, p. 288: «This is because there is a rule of strict counterpoint that in compositions using B<sub>♯</sub> one should not use a flat on the note E, and in compositions using B<sub>♭</sub>, one should not use a sharp on the note G, as long as the imitation of the words does not require such accidentals in the way they are used by modern composers».

<sup>47</sup> My diagram builds on the system illustration used by BURNETT – NITZBERG, *Composition, Chromaticism, and the Developmental Process*.

## Psalm tone, system, and transposition: the Venetian way

The relationship between psalm tone and system can be described as follows: a psalm tone is set *in* a system. So, for example, psalm tone 4 is set in *cantus durus*. Since a system limits the allowable accidentals that can appear in a composition, the psalm tone cadence notes are not always approached from below with a semitone. We see this clearly in Banchieri's illustration of psalm tone 4 cadences in *cantus durus* (Example 21).<sup>48</sup>

Notice that Banchieri approaches the cadence pitch *a* with a  $g\sharp$  (①), an allowable accidental, resulting in the accidental mi-fa semitone:  $g\sharp-a$ . Similarly, Banchieri approaches *c* from *b* (②), but there is no need for an accidental, since this is a natural mi-fa semitone. In contrast to these cadences, Banchieri's approach to *e* (③) avoids  $d\sharp$ , as this accidental is not allowed in the *durus* system. Likewise, the approach to *b* (④) does not include an  $a\sharp$ .<sup>49</sup>

Example 21. «The notes, cadences, and manner of making fugues in the fourth tone», Banchieri, *Cartella musicale*, p. 85 (Cantus)



Modes are also set in a system and like psalm tones are expressed with cadences and distinct melodic features (the species of fourths and fifths unique to each mode).<sup>50</sup> Since modes and psalm tones are set in the same background systems, they share many of the same musical features (available harmonies, contrapuntal possibilities, cadences, etc.). Nevertheless, as Pontio and Banchieri attest, psalm tones and modes were very much understood as separate entities. This becomes particularly clear when considering transposition, as a short story by Banchieri will illustrate.

In his treatise, *L'Organo suonarino*, Banchieri tells that while having the treatise printed in Venice he was fortunate to sneak in some time to hear the

<sup>48</sup> The first four notes in this example relate to the 'manner of making fugues', which I will not discuss in this article. Powers provides some discussion of this topic in POWERS, *From Psalmody to Tonality*.

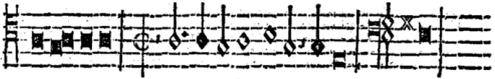
<sup>49</sup> As noted earlier, Banchieri includes B as a cadence pitch only in his initial description of psalm tone cadences, later replacing B with the cadence notes A and C.

<sup>50</sup> Species of fourths and fifths as modally-defining features have been used in analysis by many Monteverdi scholars including MCCLARY, *The Transition from Modal to Tonal Organization*, KURTZMAN, *Deconstructing Gender*, and CARTER, *Monteverdi's Musical Theatre*.

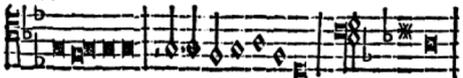
illustrious Giovanni Gabrieli (ca. 1555-1612) playing organ at St. Mark's.<sup>51</sup> During the service, he was particularly struck by something that he heard: Gabrieli transposed all the psalm tones to end on D to make it easier for the choir to sing the psalms. Banchieri illustrates these transpositions in his treatise, noting that many require additional sharps and flats.<sup>52</sup> For example, he transposes psalm tone 4 down a whole step, requiring two flats in the signature:  $b_b$  and  $e_b$  (Example 22).

Example 22. Psalm tone 4 transposed 'the Venetian way', Banchieri, *L'Organo suonarino*, pp. 42-43

Psalm Tone 4 - E final

Quarto  System:  
Durus  
Characteristic  
mi-fa = b-c

Psalm Tone 4 "The Venetian Way" - Transposed Down a Whole Step to End with a D Final

4. T.  System:  
 $2_b$  Mollis  
Characteristic  
mi-fa = d-e

Banchieri's exact transposition results in a change of background system: from a *durus* system to a  $2_b$  *mollis* system.<sup>53</sup>

Example 23. *Cantus durus* to  $2_b$  *mollis*

*Cantus Durus* Characteristic mi-fa Accidentals



$2_b$  Mollis Characteristic mi-fa Accidentals



An untransposed psalm tone 4 sits comfortably in a *durus* background; transposing it exactly down a whole step introduces two new notes in the natural background collection ( $b_b$  and  $e_b$ ), not found in a *durus* system, and

<sup>51</sup> BANCHIERI, *L'Organo suonarino*, p. 43.

<sup>52</sup> As noted in DODDS, *Organ improvisation*, p. 29, footnote 9, Banchieri is not unique in his discussion of psalm tone transposition. See for example, DIRUTA, *Il Transilvano*, Part II, Book III, p. 4ff.

<sup>53</sup> Diruta shows this same transposition in DIRUTA, *Il Transilvano*, Part II, Book IV, p. 7ff. Only *cantus durus* and *cantus mollis* were given names in historical treatises, distinguishing them from each other. Therefore, for systems including accidentals beyond these two systems, I will use labels such as ' $2_b$  mollis', ' $3_b$  mollis', etc.

instead signifying  $2\flat$  *mollis*. Whereas the characteristic mi-fa semitone of the *durus* system was *b-c*, the characteristic semitone of the  $2\flat$  *mollis* system is *d-e*. Similarly, the allowable accidentals change along with the change of system: in *durus*, these were  $b\flat$ ,  $f\sharp$ ,  $c\sharp$ ,  $g\sharp$ ; in  $2\flat$  *mollis* they are  $a\flat$ ,  $e\flat$ ,  $b\flat$ ,  $f\sharp$ . The change of allowable accidentals particularly affects cadences, and can be used to help analysts determine what system governs a composition at any given moment. For example, in  $2\flat$  *mollis*,  $g\sharp$  is not available; therefore, a perfect cadence to *a* approached by  $g\sharp$  is impossible.

### Psalm tone transposition and Monteverdi's *Dixit Dominus*

Gabrieli's psalm tone transpositions, demonstrated by Banchieri, were meant to accommodate a choir by shifting a psalm tone's reciting note to a more comfortable range. Monteverdi, likely inspired by this practice, utilized psalm tone transpositions within compositions, shifting from one psalm tonality to another in the same work. To explain why Monteverdi utilized this technique, I return now to the doxology of *Dixit Dominus*.

To refresh, Monteverdi bases *Dixit Dominus* on E-final, psalm tone 4, set in the *durus* system. He cadences in accordance with the psalm tone to major chords on A, C, and E throughout most of the work, until the doxology, where he introduces G major and D major cadence chords (see Example 14, above). He also introduces a change of signature, and a harmonization of the psalm tone melody with G-minor instead of A-minor chords (the point that Whigham found most concerning within the norms of Mode 4).

Taken together, these features indicate a shift from one psalm tonality to another: E-final psalm tone 4 (hereafter, PT4-E) to D-final psalm tone 4 (PT4-D). Monteverdi accomplishes this shift by exactly transposing the psalm tone down a whole step – the same transposition Banchieri presented above (Example 22). Monteverdi's exact transposition coincides with a shift of background system, from *durus* to  $2\flat$  *mollis*, which he indicates by changing to a flat signature.

Monteverdi only signs one flat ( $b\flat$ ), even though the background system includes two flats ( $b\flat$ ,  $e\flat$ ) because it was standard to only use natural and flat signatures until the middle of the 17th century. Banchieri, by comparison, represents both  $b\flat$  and  $e\flat$  in his signature as organists were among the earliest 17th-century composers to indicate signatures beyond natural and flat.<sup>54</sup> Nevertheless, Monteverdi's signature, rather than Banchieri's, represents standard contemporary practice.

Since Monteverdi used only natural and flat signatures, he would sign additional notes in the background system each time they occurred. His

<sup>54</sup> Dodds provides an illustration of signatures used in 17<sup>th</sup>-century organ treatises related to psalm tone transposition (DODDS, *Organ improvisation*, p. 33).

harmonization of the psalm tone in the doxology of *Dixit Dominus* does not require an  $e_b$ , so this practice is not exemplified here. In the following analysis of *Nisi Dominus*, however, we will see Monteverdi sign these additional background notes.

How can we be sure that Monteverdi shifts between psalm tonalities if  $e_b$  is not signed? Answering this question requires consideration of the available accidentals in the *durus* system – the system used for the music leading up to the doxology. In a *durus* system, the available accidentals are  $b_b$ ,  $f\sharp$ ,  $c\sharp$ , and  $g\sharp$ . Since the  $b_b$  is available, Monteverdi did not have to change the signature for the doxology, as a G-minor chord is easily possible in a *durus* system along with cadences to G major and D major.<sup>55</sup> The only reason a signature change would be required is if the background system includes an  $e_b$ , which is not available in a *durus*. Therefore, we can conclude that Monteverdi understood his exact transposition as necessitating a shift to a system that includes  $e_b$  ( $2_b$  *mollis*), even if he does not indicate this note in the signature.

Along with the exact transposition of the psalm tone melody and resultant change of background system, Monteverdi cadences in accordance with PT4-D: first to a G major chord, marking the mediant, then a D-major chord, marking the final. His harmonization of the psalm tone also reflects the new psalm tonality, as he uses G-minor and D-major chords in place of A-minor and E-major chords used for the untransposed tone.

Monteverdi's G minor harmonization led Whenham to call this moment «startling» as it defies the «norms of Mode 4». I agree with Whenham, that this moment is indeed startling, but for an entirely different reason: Monteverdi has shifted psalm tonalities mid-composition (PT4-E to PT4-D). He is the first composer to use this technique in a psalm setting, as far as I have found. He uses this psalm-tonal shift to formally mark the doxology – a formal demarcation he reuses in *Nisi Dominus*, as will be shown below, as well the other psalm settings from the 1610 Vespers, *Lætatus sum*, *Lauda Ierusalem*, and *Laudate pueri*.<sup>56</sup>

## Transposition-system relationships in the early 17th century and a musical pun

Monteverdi's shift between psalm tonalities represents one type of transposition-system relationship available to an early 17th-century composer.

There are, in fact, three types in total:

<sup>55</sup> Monteverdi's, *Il quinto libro de madrigali* (1605), for example, includes many *durus* pieces with these features, like *O Mirtillo*.

<sup>56</sup> Kurtzman remarks how *Laudate pueri* and *Dixit Dominus* shift 'tonalities' for the doxology as well (KURTZMAN, *The Monteverdi Vespers of 1610*, p. 222).

1. Exact Transposition + System Change
2. Exact Transposition + No System Change
3. Tonal Transposition + No System Change

Type 1 is the relationship Monteverdi uses to mark the doxology: he exactly transposes the psalm tone and changes the background system. This is very similar to our modern concept of modulation.<sup>57</sup> Type 2 also appears in *Dixit Dominus*, and Monteverdi uses it to structure the «Sicut erat» portion of the doxology, which I will examine momentarily. I will not discuss Type 3 in this article.

A Type 2 relationship means the psalm tone can be maintained under exact transposition without changing system.<sup>58</sup> To test whether a psalm tone fulfills this criterion, we must consider the intervallic structure of the melody as well as the notes required to approach cadences.

Using untransposed psalm tone 4 (PT4-E) to illustrate, recall that Banchieri identified the proper approach to cadences in PT4-E as: *a* approached with *g*#, *c* with *b*, and *e* with *d* (see Example 21 above). For a Type 2 relationship to occur, these cadence approaches, along with the intervallic structure of the psalm tone melody, must remain intact under transposition without changing system. There is only one exact transposition in a *durus* system that can accomplish this: PT4-E transposed to PT4-A.

Example 24. Type 2 relationship, PT4-E to PT4-A in *durus*

The image shows two musical staves in a *durus* system. The top staff is labeled "PT4-E Melody (*durus*)" and "Cadences". The bottom staff is labeled "PT4-A Melody (*durus*)" and "Cadences". A downward-pointing arrow labeled "TYPE 2" connects the two staves. Below each staff, the intervals between notes are listed: "Intervals: s s t t s s t +3 -3 s s t".

But why would a composer use a Type 2 relationship? Monteverdi provides an answer in *Dixit Dominus* when considering this relationship in the overall form:

<sup>57</sup> A modulation from C major to G major, for example, means we maintain the same cadence relationships, as well as semitone and tone relations of the key, by exactly transposing these relationships up a fifth.

<sup>58</sup> Fray Tomas de Sancta Maria provides a similar discussion related to modal, rather than psalm tonal, transposition in *SANCTA MARIA, Arte de Tañer Fantasia*, Book I, Chp. XXV.

Figure 4. *Dixit Dominus* psalm tone, transposition, and form

Type 1 marks the «Gloria patri» as formally significant compared to Verses 1-8: PT4-E shifts to PT4-D. Type 2, shown as the relationship between Verses 1-8 and the «Sicut erat» section, marks a return to the original *durus* system, musically representing the pun, «As it was in the beginning». Monteverdi had two means of accomplishing this pun: (1) either return to PT4-E, which is set in the *durus* system, or (2) use a Type 2 relationship to shift to PT4-A (also in the *durus* system). He chose the latter option, but why not simply return to PT4-E?

Monteverdi's Type 2 transposition allows him to create a structural connection between PT4-D («Gloria patri») and PT4-E («Amen») by using PT4-A («Sicut erat») as a link. The dotted lines in Example 24 illustrate the connection between the final note of each psalm tone melody and the reciting note of the subsequent melody. I have also indicated how Monteverdi links each psalm tonality with major and minor forms of the same harmony: D major («Gloria») to D minor («Sicut») and then A major («Sicut») to A minor («Amen»).

Monteverdi's Type 2 transposition allows him to return to *durus* as a musical pun while linking PT4-D to PT4-E using PT4-A. It also means we are presented with two new cadences to properly mark the mediant and final of PT4-A, D major (m. 242), and A major (m. 255), respectively:

Sicut erat in principio, et nunc, et semper, et in secula seculorum. Amen		
	Cad: D (m. 242)	Cad: A (m. 255)

Figure 5. *Dixit Dominus*, doxology («Sicut erat») cadences

Following the final A major cadence of PT4-A, Monteverdi tags on an «Amen» cadence to E major (mm. 256-258), signaling a return to PT4-E to end the piece (see Example 6, above). This return fulfills the requirement that all psalm settings should end with a final cadence in accordance with their tone. Considering Monteverdi's psalm tone shifts, this requirement needs rewording: all psalm settings should end with a final cadence in accordance with the overall psalm tonality (i.e. the psalm tonality that begins and ends the work).

To summarize, the cadences found in Monteverdi's *Dixit Dominus* match the psalm tone 4 cadences described by Banchieri. Banchieri's description

assumes PT4-E, but Monteverdi uses two types of transposition-system relationship to shift to PT4-D and PT4-A as well. Consequently, the cadences shift along with the psalm tonalities, accounting for the seeming discrepancy between Banchieri's and Monteverdi's cadences.

One issue remains, however: my analysis required faith on the part of the reader that Monteverdi's Type 1 shift to PT4-D to begin the doxology coincided with a change in background system from *durus* to 2<sup>b</sup> *mollis*. Monteverdi only uses a one-flat signature to illustrate this shift, but I argued that he would sign additional system notes if they occurred. In the following analysis of *Nisi Dominus*, I offer proof for this claim while also considering how Monteverdi uses Type 1 relationships to interpret the text as a musical form.

### *Nisi Dominus*

*Nisi Dominus* is written for two five-part choirs, continuo, and instrumental group. Monteverdi bases the piece on psalm tone 6 set in *mollis*, for which Banchieri prescribes cadences to F, A, and C. Monteverdi uses the psalm tone 6 melody as a *cantus firmus* throughout, marking the end of the *differentia* consistently with final cadence chords, but evading or avoiding mediant cadences – a point I will discuss at the end of this section.

Example 25. Psalm tone 6 and cadences



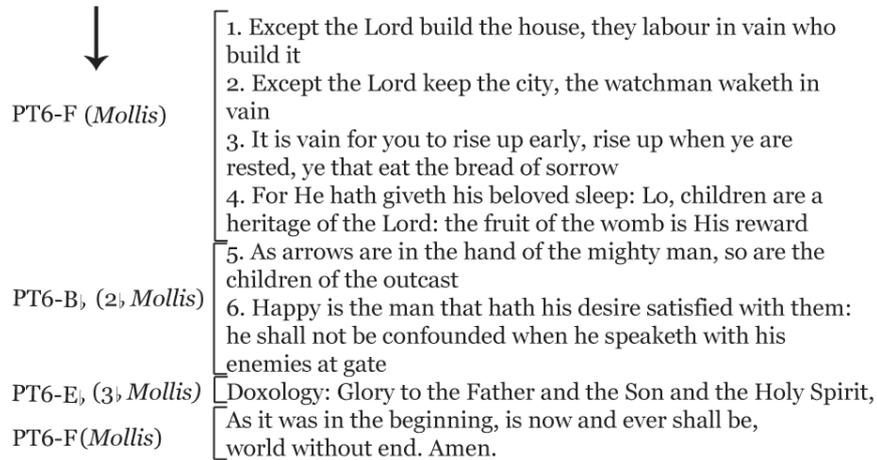
Monteverdi uses three Type 1 relationships to shift between psalm tonalities, each coinciding with a change of background system. These shifts musically represent his interpretation of the psalm text as a progression from a life without God to a life with God (Example 26).

The progression works as follows: Verses 1-4 lead from warnings about not having God in one's life to a suggestion that having children pleases God and perpetuates his lineage. Verses 5-6 change perspective, moving from a Godless life to one that welcomes God: having God's children provides strength against enemies, and by pleasing God with offspring we are contented. Then we reach the doxology: an affirmation of faith and proclamation of God as the trinity of the Father, the Son, and the Holy Spirit. The doxology concludes with the recognition of God's eternity: «As it was in the beginning, is now and ever shall be, world without end».

Example 26. Psalm tone, system, and text relationships in *Nisi Dominus*<sup>59</sup>

*Nisi Dominus*

Psalm Tone and System



Monteverdi represents this interpretation with Type 1 relationships, moving flatward toward the doxology, from PT6-F, *mollis* (Verses 1-4), to PT6-B, 2, *mollis* (Verses 5-6), to PT6-E, 3, *mollis* (doxology), before snapping back to PT6-F, *mollis* as a musical pun for «As it was in the beginning ...».

Monteverdi reinforces this impressive flatward progression with a textural effect: the shifts take place throughout the *cori spezzati* section of the work, wherein the two choirs gradually merge while the music moves flatward, uniting finally for the doxology (the flattest moment in the piece).<sup>60</sup> The division of choirs represents a division from God; their reunification represents acceptance of God.

Verse:	Verse 1 (mm. 1-35)	Verses 2-4 (mm. 36-122)	Verses 5-6 (mm. 120-162)	Doxology ("Gloria Patri") (mm. 163-175)	Doxology ("Sicut erat") (mm. 176-end)
Measure:				united C I + C II	
Choirs:	C I + C II	divided C I    C II	merging C I → C II		C I + C II
System:	Mollis	Mollis	2, Mollis	3, Mollis	Mollis
Psalm Tone:	PT6-F	PT6-F	PT6-B,	PT6-E,	PT6-F

Figure 6. *Nisi Dominus* formal summary

The above diagram illustrates the relationship between system, verses, texture (choirs), and psalm tonalities. I will examine the shifts between psalm

<sup>59</sup> Translation by WHENHAM, *Monteverdi: Vespers*, pp. 112-113.

<sup>60</sup> *Cori Spezzati* refers to divided choir composition, where each choir trades off the same or similar musical material. The technique was especially prevalent at St. Mark's in Venice at the time of Giovanni Gabrieli, ca. 1585-1612.

tonalities in detail, but first I will contextual this examination by discussing the structure of the *cori spezzati* section.

Following an F-major cadence chord marking the end of Verse 1, Monteverdi divides the ten-part group into two choirs to structure a series of alternations throughout Verses 2-6. Choir II repeats the music sung by Choir I, until the choirs gradually merge back together as the time interval of imitation shrinks. Monteverdi smooths out the alternation by continually overlapping the choirs so that one choir enters while the other choir cadences. This overlap takes advantage of the similarity between the beginning and ending of the psalm tone melody, which Monteverdi harmonizes the same way:

Example 27. Monteverdi's harmonization of psalm tone 6 to create overlap

The diagram illustrates the overlap of psalm tone 6. The top staff shows a sequence of notes: F, C, F, F, C, F. Below this, a smaller staff shows the overlapping portion of the melody: F, C, F. Arrows indicate the overlap between the two staves.

Monteverdi sets Verses 2-4 in this manner, leading to the first Type 1 shift that marks Verse 5 – a move toward God. This shift results from an exact transposition of the psalm tone up a fourth, meaning the psalm tone melody now starts and ends on B $\flat$ . Monteverdi's transposition follows a statement of the first three notes of the untransposed psalm tone melody on F in Choir I, which he overlaps with the concluding F major cadence of Choir II:

Example 28. *Nisi Dominus*, mm. 120-124 (reduction) (psalm tone melodies marked x)

The score shows two choirs. Choir I consists of Soprano and Tenor parts. The Soprano part has lyrics: "Si - cut si - cut sa -". The Tenor part has lyrics: "fru - tus ven - tris." and "PT6-F" and "PT6-B $\flat$ !". Choir II consists of Quintus and Bass parts. The Quintus part has lyrics: "fru - tus ven - tris." and "PT6-F ends in Choir II". The Bass part has lyrics: "fru - tus ven - tris." and "Cad: F+".

With the exact transposition, the background system changes, from *mollis* to  $2\flat$  *mollis* – the characteristic semitone shifts from  $a-b\flat$  to  $d-e\flat$ . As in *Dixit Dominus*, Monteverdi does not change the signature (from flat to two-flat) to mark a move to  $2\flat$  *mollis*. Instead, he adds the  $e\flat$  by hand in m. 129 indicating this background system (Example 29).

Monteverdi's shift from PT6-F to PT6-B $\flat$  creates a problem for the upcoming overlap with Choir II: Choir II will repeat the music just sung by Choir I, which began with the untransposed psalm tone, PT6-F (m. 120). Therefore, Monteverdi must end Choir I's phrase in PT6-F to match, and so he abruptly transposes the psalm tone back down a fourth to accommodate this overlap (Example 29, mm. 132-136). The transposition coincides with a change of background system back to *mollis*, exemplified by an  $e\sharp$  (m. 132) in place of the previously heard  $e\flat$ .

Choir II then repeats Choir I's music but this time Monteverdi remains in PT6-B $\flat$ , and gradually merges the choirs back together. Once they finally merge, Monteverdi confirms the new psalm tonality with a perfect cadence to a B $\flat$ -major chord, mm. 161-162 (not shown).

Following this cadence, Monteverdi once again exactly transposes the psalm tone, this time down a perfect fifth from PT6-B $\flat$  to PT6-E $\flat$  to start the doxology. The background system changes in turn, and we arrive in a shocking  $3\flat$  *mollis* system (Example 30).<sup>61</sup>

The new characteristic semitone is  $g-a\flat$ , which Monteverdi marks in m. 167. Many keyboards around 1610 lacked the note  $a\flat$ , reflecting the limitations of meantone tuning, and providing an idea of just how flat Monteverdi has progressed to arrive in PT6-E $\flat$  for the doxology.<sup>62</sup>

At the end of the «Gloria patri», Monteverdi confirms PT6-E $\flat$  with a cadence to an E $\flat$ -major chord (m. 175). He marks the subsequent «sicut erat» with a return to the work's opening music, resulting in a startling Type 1 shift from PT6-E $\flat$  ( $3\flat$  *mollis*) to PT6-F (*mollis*). This return not only musically represents the words («As it was in the beginning . . .») but also allows Monteverdi to conclude the work with an F major cadence, confirming the original psalm tonality. Monteverdi's shifting psalm tonalities to mark the «Gloria patri» and «Sicut erat» recalls the shifts he used to mark the two sections of the doxology *Dixit Dominus*. The only difference is the type of transposition-system relationships used to create this formal effect.

<sup>61</sup> This is the flattest system in all of Monteverdi's psalm settings.

<sup>62</sup> In meantone tuning, there is an audible difference between the notes G $\sharp$  and A $\flat$  and many early-17<sup>th</sup>-century keyboards included only the more frequently used G $\sharp$ . As Kurtzman points out, however, some keyboards had split keys to accommodate both pitches, including the organ in the ducal church of Santa Barbara in Mantua (KURTZMAN, *The Monteverdi Vespers of 1610*, p. 490).

Example 29. *Nisi Dominus*, mm. 129–136 (reduction)

The musical score is divided into two systems. The first system, measures 129-132, shows Choir I with the lyrics "i - ta fi - li - i i - ta fi - li - i" and a Tenor part with "tis, i - ta fi - li - i". The Tenor part has an 'x' over the first measure and a circled 'b' under the second measure. Harmonic annotations include "PT6-Bb" and "PT6-F!". The second system, measures 133-136, shows Choir I with the lyrics "ex - cus so rum. fi - li - i ex - cus - so - rum." and Choir II with the lyrics "Si - cut Si - cut". The Tenor part has an 'x' over the first measure and a circled 'b' under the second measure. Harmonic annotations include "Cad: F+" and "PT6-F".

Earlier in the article, I mentioned that Monteverdi composes all his cadence chords on roots matching Banchieri's cadence notes, except the mediant cadences in *Nisi Dominus*. I will now suggest a reason why: since the psalm tone 6 melody has the same mediant and final cadence notes (see Example 25, above), treating both as the roots of chords would result in two of the same cadences per statement of the tone. To circumvent this redundancy, Monteverdi evades or avoids mediant cadences throughout *Nisi Dominus*. These evaded cadences imply resolutions to D-major chords, not F-major chords as we might expect, further avoiding harmonic stasis. Consequently, he either treats the mediant note *f* as the third of a D-minor chord, thwarting a perfect cadence to D major, or he treats the penultimate note, *a*, of the psalm tone melody as the fifth of a D-major chord.

Example 30. *Nisi Dominus*, «Gloria Patri,» mm. 163-175 (psalm tone in Quintus)

163

Cantus  
Altus  
Tenor  
Quintus  
Bassus

Glo - ri - a Pa - tri, et Fi - li -  
Glo - ri - a Pa - tri, et Fi - li -  
Glo - ri - a Pa - tri, et Fi - li -  
Glo - ri - a Pa - tri, et Fi - li -  
Glo - ri - a Pa - tri, et Fi - li -

169

o, et Spi - ri - tu - i Sanc - to.  
o, et Spi - ri - tu - i Sanc - to.  
o, et Spi - ri - tu - i Sanc - to.  
o, et Spi - ri - tu - i Sanc - to.  
o, et Spi - ri - tu - i Sanc - to.

Cad: Eb

Beginning with the latter, Monteverdi implies a plagal resolution to a D-major chord at the end of the mediation in Verse 1 (see Example 31). As Kurtzman notes, «In the mediant cadence from the first verse of *Nisi Dominus*, the other voices come to an incomplete close on a D major triad, while the cadential *f* of the chant, harmonized with an F major triad, overlaps the beginning of the second half of the verse in the other parts [circled in Example 31]». <sup>63</sup> In other words, Monteverdi's implied cadence chord (D major) does not coincide with the mediant cadence note, *f*, and he also avoids a textual pause, thwarting the sense of a cadential arrival. <sup>64</sup>

<sup>63</sup> KURTZMAN, *The Monteverdi Vespers of 1610*, p. 236.

<sup>64</sup> Zarlino recommends that cadences coincide with textual pauses (ZARLINO, *Le istituzioni harmoniche*, p. 225).

PSALM-TONE TONALITY

Example 31. *Nisi Dominus*, Verse 1, mm. 16-21 (psalm tone marked ×)

16

Cantus  
 Altus  
 Tenor  
 Quintus  
 Bassus  
 Sextus  
 Septus  
 Tenor  
 Quintus  
 Bassus

rit do - mum, in va - num  
 rit do - mum, in va - num

Evaded Plagal: D+

In Verse 2, Monteverdi implies a perfect cadence to D major (see Example 32), but again evades the cadence by ending with a D-minor chord, rather than a required D-major chord. This D-minor chord accommodates the mediant cadence note, *f*, but the minor ending prevents this from serving as a cadence.

Example 32. *Nisi Dominus*, Verse 2, mm. 36-44 (reduction)

36

42

Choir I  
 Tenor

Ni - si, ni - si Do - mi - nus cu - sto - di - e - rit ci - vi - ta - tem ci - vi - ta - tem,

Evaded Perfect Cadence: A+ D-!

For the remainder of *Nisi Dominus*, Monteverdi simply avoids mediant cadences altogether. His choice to evade or avoid mediant cadences does not diminish the expression of the psalm tonality, however, as he consistently uses final cadence chords throughout the piece.

To summarize, Monteverdi adheres to the proper psalm tone 6 final cadences in *Nisi Dominus* as described by Banchieri. He shifts between psalm tonalities multiple times with Type 1 relationships, and he marks these shifts by signing the required notes of the background system not accounted for by the one-flat signature. For analysts, understanding systems in relation to their characteristic semitones and allowable accidentals clarifies these otherwise easily overlooked system changes.

## Conclusion

In this article, I accounted for Monteverdi's 1610 psalm settings as psalm tonal compositions. This account led to a discussion of psalm tone transposition-system relationships and considered how these contribute to the form and cadential variety of *Dixit Dominus* and *Nisi Dominus*. From this discussion two conclusions can be made: (1) Monteverdi's cadences are representative of psalm tonalities and correlate with Banchieri's psalm tone cadences laid out in *Cartella musicale*; (2) Monteverdi used transposition-system relationships to formally demarcate the doxology in each of his 1610 psalm settings.

Powers, who guided my earlier discussion of mode versus tone, concludes that psalm tones become the basis our major and minor keys – the set of eight psalm tonalities expanded to 24 keys through transposition.<sup>65</sup> Not just any transposition, I would add, but exact transposition: the type described by Banchieri and used by Gabrieli to accommodate singers at St. Mark's. It was Monteverdi, however, who applied transposition within works to structure his forms from contrasting psalm tonalities – a foundational step toward our modern concept of tonal modulation.

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<sup>65</sup> POWERS, *Monteverdi's Model*; see also BARNETT, *Bolognese Instrumental Music*.

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