

Aspects of durus/mollis shift and the two-system framework of Monteverdi's music

by

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I. The seventeenth-century modal-hexachordal system

In the section of the *Musurgia Universalis* devoted to the *Stylo metabolico* (that is, a style involving extensive modulation, including that from major to minor and to distant keys such as B flat minor), Athanasius Kircher mentions a distinction between the terms *mutatio modi* and *mutatio toni* that is drawn by some theorists.¹ Kircher is probably referring to Giovanni Battista Doni's treatment of the subject in his *Compendio del Trattato de' Generi e de' Modi della musica* of 1635, for on the following page he (Kircher) prints an excerpt from a composition by Pietro della Valle written for the instrument devised by Doni for the purpose of playing in the Dorian, Phrygian and Lydian modes.² In his treatise as well as with his new instrument, Doni was, of course, attempting to reinstate the ancient Greek categories of »mode« and »tone« for modern musical practice. His distinction between those terms recognizes therefore a modern usage that is different from the

As I was writing this article I heard of the death of Carl Dahlhaus, whose work on tonality in the music of Monteverdi's time served, as the reader will see, as a starting point for much of my own. I therefore dedicate this study to the memory of one of the greatest musical scholars of the twentieth century.

A note on the musical examples: In examples 2, 3, and 11 (a and b) of this study the use in the original prints of *quadro* signs (our natural signs) has been retained. These accidentals were used by the authors to substitute for the far more common sharp sign, for reasons discussed in the text of this article. In all other examples the natural sign is used in the modern manner; that is, it replaces either a sharp or a flat in the original source. In examples that change key signature I have introduced natural signs to indicate the shift to the *cantus durus*; the originals simply repeat the clefs without any signature (that is, with the previous flat signature dropped).

- 1 ATHANASIUS KIRCHER, *Musurgia Universalis* (Rome, 1650). Facsimile reprint edited by Ulf Scharlau (Hildesheim: Georg Olms Verlag, 1970), Part One, p. 672. »Hoc loco quidam discrimen ponunt inter modum, & tonum; Mutationem toni dicunt, quandò systema toni penitus mutatur, modi mutatio dicitur, quandò fit processus à chorda naturalis toni ad non naturalem, ut cum processus fieri debet à tono in tonum, is fiat in semitonium, aut diesin, uti paulo ante dictum est.«
- 2 KIRCHER, p. 673. Doni ends his treatise (pp. 165-171) with a four-part madrigal composed at Doni's request by Pietro Eredia for the purpose of illustrating Doni's system of »toni« and »modi«. Headings above the music indicate sections in the Dorian and Phrygian »modes«. There is a very close, but not exact, correspondence between the sections in *cantus durus* and the passages designated Dorian, likewise between the *cantus mollis* and the Phrygian sections. However, as Doni's prefaces to the piece indicate (pp. 161-164) the Phrygian sections must be accompanied by an instrument tuned a major third higher than the Dorian sections. With respect to the latter, therefore, they are considerably sharper, even though the visual notation is mostly in the *cantus mollis*. Doni's system utilizes high clefs for the Phrygian sections and low for the Dorian in addition to a system of ties and dots to render the transition between the two easier. Doni later invented an instrument, the *Lyra Barberina*, to facilitate performance according to his system. The short excerpt quoted by Kircher follows the same procedure.

Greek; it is this to which Kircher refers. According to this modern usage *mutatio toni* signifies shift of mode and *mutatio modi* shift of *cantus*, system or, in modern terms, key-signature level.³

As it is presented by Doni the distinction between *modus* and *tonus* will not serve as an analytical aid for the music of the early seventeenth century. For one thing, the two terms were used interchangeably in the sixteenth and seventeenth centuries to signify mode, so Doni's distinction does not correspond to one that was drawn by contemporary musicians.⁴ Also, virtually any shift of mode in the music of this period will involve shift in accidentals as great as or greater than the mere change of B natural to B flat that Doni gives as an example of *mutatio modi*, and some modes (Dorian, or D minor, for example) featured the two pitches regularly without any kind of shift. In fact, the merger of the two categories — which brings us closer to the modern concept of modulation — is often more characteristic of Monteverdi's music. Nevertheless, there is a value to our taking account of Doni's somewhat artificial juxtaposition of *modus* and *tonus*, for their separation points up an important difference between the tonal theory of Monteverdi's time and that of our own. For us mode or key is bound up with »system«, as the English term »key-signature« reveals, whereas in the early seventeenth century the two were not so inextricably joined. The term »key-signature« is therefore a misnomer when used for the music of this time, since what was called the *signatio* of a piece — the choice of *cantus durus* or *cantus mollis* as reflected in the presence or absence of the B flat indication — did not specify the mode or key at all.

Recognition of these two categories of shift is a valuable aid in heightening our sense of the differences between the tonal styles of Monteverdi's age and the later eras with which we are more familiar. With these reservations in mind, I will give a theoretical introduction (of necessity brief) to some of the major issues affecting our analysis of this music, and consider some of the clearer instances of *mutatio modi*, those where shift of key signature occurs within a movement, and their implications for larger scale tonal design, such as that of *Orfeo*.

Two premises must be stated at the outset. The first involves the relationship between theory and composition. This study takes the position that Monteverdi composes rationalistically, especially with regard to text/music relationships, a quality that enables us to extract some of the logical premises of his tonal practices for the purpose of erecting a theoretical system that will account for a wide range of tonal events in his music. The theory of his time, however — although invaluable to us in the endeavor just mentioned — is inadequate on its own to explain the music. A second, related premise of this study involves the perennial question of »modality« versus »tonality«, which I view as possessing a dialectical, rather than developmental or evolutionary relationship in Monteverdi's music. Monteverdi's music often features a tension between older and newer tonal systems: the former (which might

3 DONI, *Compendio*, pp. 32-43. Doni's system of tones and modes is described by CLAUDE PALISCA in *New GroveD 5*, pp. 550-552.

4 See, for example, BERNHARD MEIER, *Die Tonarten der klassischen Vokalpolyphonie* (Utrecht: Oosthoek, Scheltema & Holkema, 1974). English edition: *The Modes of Classical Vocal Polyphony*, trans. ELLEN S. BEEBE (New York: Broude Brothers, 1988), pp. 34-35. The Chapter from Kircher's treatise cited in note one, for example, is headed *De Mutatione Modi, sive Toni, sive stylo Metabolico*.

be called the »modal/hexachordal« system) is inadequate to describe the practice of tonal composition, while the latter (tonal theory after the circle of keys) did not exist as a concept. As a result the music often tends intrinsically towards one direction (the future) but is »regulated« conceptually by another (the past). That is, the past exists as a set of concepts; the future exists also, but in a different way that might, perhaps, be described as a set of tendencies. There is no inevitable reason to prefer the past, to give it logical as well as chronological priority. Instead I will attempt to describe a broader framework in which past and future exist simultaneously, as they do in our minds.

In Monteverdi's music mode and system are still considerably independent of one another, an inevitable result of the fact that with the possible exception of two movements from his last work, *L'incoronazione di Poppea*, Monteverdi notates his music exclusively within the framework defined by the *cantus durus* or natural system and the *cantus mollis* or one-flat system.⁵ The nature of this traditional musical usage in the early seventeenth century is of the utmost importance for our understanding of his tonal style, both as the manifestation of an autonomous musical system and as a framework for text-music relationships. I have found it useful to describe this two-system framework in terms of four »hexachords«, taking that term (hexachord) to indicate a harmonic spectrum comprising the triads whose roots are the tones of the transposing scales or hexachords on B flat, F, C and G.⁶ Each system (*cantus durus* or *cantus mollis*) expresses the harmonic content of no more than three such hexachords; B flat, F and C for the *cantus mollis*, F, C and G for the *cantus durus*.

Figure One: The »Modal-hexachordal« system

a) The chordal content of the individual hexachords

two-flat hexachord:	e \flat - B \flat - F - c/C - g/G - d/D
one-flat hexachord:	B \flat - F - C - g/G - d/D - a/A
natural hexachord:	F - C - G - d/D - a/A - e/E
sharp hexachord:	C - G - D - a/A - e/E - b/B

5 The two pieces that are exceptions to this statement are Ottone's D major aria »E piu io torna qui« (Act I, Scene I) and the A major duet of Valletto and Damigella (Act II, Scene V), both of which are notated with the two-sharp signature. In recent years, however, the authenticity of the duet (which exists only in the Venice score) as a composition of Monteverdi has been doubted, while there are reasons for believing that Ottone's aria was transposed by someone other than Monteverdi. See, ALAN CURTIS, »'La Poppea Impasticciata' or, Who Wrote the Music to 'L'Incoronazione' (1643)?«, JAMS 42 (1989), pp. 28-30, 33. It seems probable, therefore, that Monteverdi never notated any piece in any signature other than that of the *cantus durus* or the *cantus mollis*.

6 This system is, of course, derived from CARL DAHLHAUS, *Untersuchungen über die Entstehung der harmonischen Tonalität* (Kassel: Bärenreiter, 1968), pp. 257-266.

b) The grouping of hexachords within the two systems

Flat System: Cantus mollis
hexachords

B [bb]	F [b]	C [q]
E♭		
B♭	B♭	
F	F	F
c [C]	C	C
g [G]	g [G]	G
d [D]	d [D]	d [D]
	a [A]	a [A]
		e [E]

Natural System: Cantus durus
hexachords

F [b]	C [q]	G [♯]
B♭		
F		
C	C	C
g [G]	G	G
d [D]	d [D]	D
a [A]	a [A]	a [A]
	e [E]	e [E]
		b [B]

Each hexachord has six basic harmonies, three of which may be altered from minor to major. The flattest and the sharpest degrees of each hexachord represent the »fa« and »mi« degrees that when brought together constitute the phrygian cadence. The cadence degrees of each system are those of its central hexachord. The finale of Kircher's *cantus mollis* and *durus* modes are within the enclosures. In the *cantus mollis* the entire range of modal finals is contained within the two-flat and one-flat hexachords only, in the *cantus durus* within the natural and sharp hexachords only.

The »central« hexachord of each system – those on F and C respectively – determines the normally available cadence degrees within that system, while the other two »secondary« hexachords of that system express shift in the flat or sharp direction within the system – with no necessity of a key signature shift.⁷ Normally those pieces that shift from *cantus mollis* to *cantus durus* or vice versa involve a chordal range that exceeds three hexachords.

The seventeenth-century presentations of the modes (keys) that are most closely relevant to Monteverdi's work assigned some modes to one *cantus*, some to another, thus defining a two-system framework as the normal boundary for harmonic/tonal events. Adriano Banchieri's well-known presentation of the modes in his *L'organo suonarino* (1605), for example, assigns five modes to the *cantus durus* – with finals on d, a, e, C and G – and three to the *cantus mollis*: g, F and d.⁸ These involve the maximum number of modal finals in the Monteverdi madrigal books, and only one book (the third) features all eight modes (Books Four through Six exhibit a progressive reduction to six, four and three modes respectively, while Books Seven and Eight use the same five: d, a, C and G in *cantus durus*, g in *cantus mollis*). Athanasius Kircher, on the other hand, assigns five modes to each *cantus*: B flat, F, C, g and d to *cantus mollis* and C, G, d, a and e to *cantus*

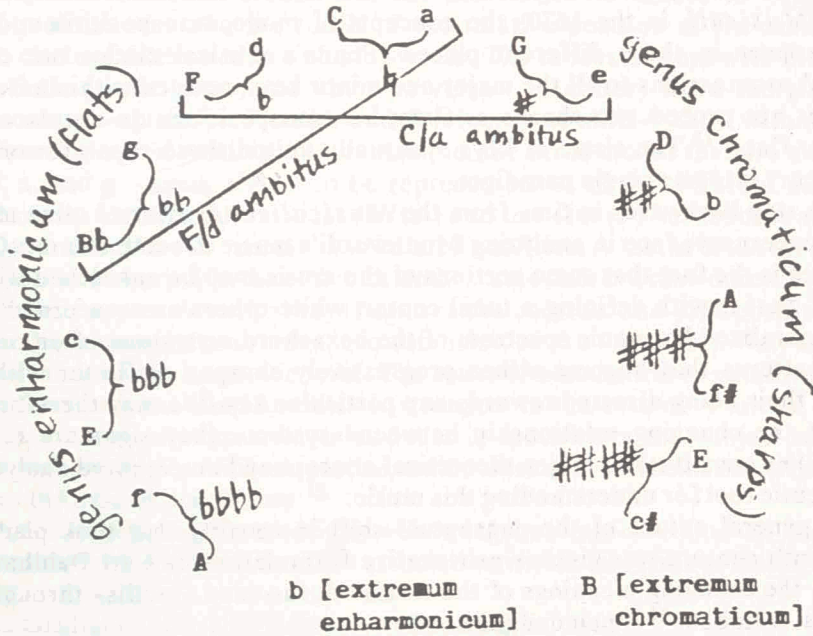
7 Dahlhaus's discussions of Monteverdi madrigals (Untersuchungen, pp. 257-286) do not spell out this situation as a regularly recurrent one, a norm of the style. But he recognizes it in certain pieces, such as »Ferir quel petto« from Book Five, describing the relationship between hexachords as that of *Haupt-* and *Nebensysteme* (pp. 271-272).

8 BANCHIERI, *L'organo suonarino* (Venice, 1605). Facsimile edition with preface by GIULIO CATTIN, Bologna: Forno Editore, 1969, p. 41.

durus.⁹ His scheme of the modes corresponds exactly to the modal finals in Monteverdi's *Orfeo*.

As a relatively closed tonal framework what I have just outlined may be compared to the grouping of keys within the first published *Musicalischer Circul*, that of Johann David Heinichen of 1711.¹⁰

Figure Two: The circle of keys (*Musicalischer Circul*) as presented in the text of David Heinichen's *Neu-erfundene und gründliche Anweisung* (1711)¹¹



The main points of comparison are that the corresponding segment of the circle of keys comprises four key signatures rather than two (one signature for each of the four hexachord levels in the older system: B flat, F, C, G), and that each of Heinichen's two *ambitus* (for F/d and C/a respectively) contains six keys whose finals correspond to the six degrees of the central hexachord or each of the two

⁹ KIRCHER, *Musurgia*, Part II, p. 51.

¹⁰ JOHANN DAVID HEINICHEN, *Neu-erfundene und gründliche Anweisung* (Hamburg 1711), pp. 261-267. Heinichen's circle diagram precedes his discussion in the fourth chapter of the 'Anweisung'; it presents the sharp keys to the left and the flat to the right, whereas the discussion does the opposite. Heinichen's circle is »closed«—that is, it contains the keys that are missing in my diagram: C sharp major (or D flat), E flat minor, F sharp major and A flat minor; but Heinichen designates B major and B flat minor the *extremum chromaticum* and *extremum enharmonicum* respectively, adding that B flat minor is »hardly usable« and that anyone wishing to try the four remaining keys will find that their use is »bad« (p. 262, #6). My addition of the terms *genus chromaticum* and *enharmonicum* as well as the identification of the two *ambitus* that correspond to the two systems is based on Heinichen's discussion on the abovementioned pages.

¹¹ I have bracketed the two *ambitus* whose keys correspond to the cadence degrees of the *cantus durus* and *cantus mollis*.

systems.¹² These keys are now grouped according to relative major/minor pairs at each key signature level. The legitimizing of key signature or hexachord shift has replaced the idea of modal differentiation, an occurrence that goes hand in hand with increased emphasis on tonal centers. I have drawn Heinichen's theory into this discussion of the music of a much earlier era as a frame of reference for tonal events and conceptions that are never clearly spelled out in the music theory of the early seventeenth century. The extension in the seventeenth century of the two-system framework via the increased use of transposition leads directly to the circle of keys. But it is worth noting that as late as Lorenzo Penna's treatise, *Li Primi Albori Musicali*, in the 1670s the concepts of mode, transposition and musical circles appear in three different places (Penna's musical circles are circles of cadential progressions to all the major and minor keys, notated within a framework that does not exceed two sharps or flats; his transpositions do not exceed three sharps or flats).¹³ The circle of keys eventually united these separate concerns of tonal theory into one single paradigm.

If we step backwards in time from the *Musicalischer Circul* some of the different concerns we face in analyzing Monteverdi's music become clearer. One such difference is the fact that some sections of the music may be concerned with mode (or key), that is with defining a tonal center, while others are concerned with the more generalized harmonic spectrum of the hexachord or system, often organizing it into patterns that become either progressively sharper or flatter without any sense of their being directed towards any particular key. We may therefore postulate that the changing relationship between »system« (key signature level) and mode or key constitutes a major theoretical concept and an essential analytical and hermeneutic tool for understanding this music.

The general nature of the conceptual shift in tonality that took place in the seventeenth century was given a provocative formulation by Carl Dahlhaus in his study on the changing meanings of the terms »durus« and »mollis« throughout the centuries. Dahlhaus¹⁴ concluded that

[in the seventeenth century] the logical relationship between mode and transposition scale was reversed: up to the seventeenth century the transposition scales (»cantus durus« and »mollis«) represented genera (*Tongeschlechter*), the modes (e.g., C-ionic and A-aeolian) represented species (*Tonarten* or keys). Since then we treat the modes as genera (the ionic mode as the major »genus«, the aeolian as the minor) and the transposition scales as species: C major [dur] and A minor [moll] as keys.

This distinction highlights the two qualities that were associated with the terms »durus« and »mollis« – major versus minor and sharp versus flat – in a manner that was undoubtedly not consciously formulated but was fundamental to tonal style. As

12 Heinichen's discussion of »ambitus« appears on pp. 263-265 of the 'Anweisung'.

13 LORENZO PENNA, *Li Primi Albori Musicali* (Bologna, 1672), pp. 26-29 (transposition), 120-128 (modes), 174-183 (circles of cadences).

14 »Die Termini Dur und Moll«, *AfMw* 12 (1955), pp. 289-291: »Bis zum 17. Jahrhundert galten die Transpositionsskalen (der 'cantus durus' und der 'cantus mollis') als Tongeschlechter (Genera), die Modi (z.B. c-jonisch und a-äolisch) als Tonarten (Spezies). Seither betrachtet man die Modi als Genera (den jonischen Modus als Dur-Geschlecht, den äolischen Modus als Moll-Geschlecht) und die Transpositionsskalen als Spezies (C-Dur und a-moll als Tonarten).«

we will see, everything that relates to these two terms is of great importance in understanding Monteverdi's tonal style.

In early-seventeenth-century Italian music the terms »durus« and »mollis« were associated with musical qualities arising from the literal meanings of the words (hard and soft) that were likewise associated with *both* shift of system and shift between certain modes, even within the same system. The fact that »durus« and »mollis« qualities could belong to both types of shift was to some extent the result of the grouping of certain modes with the one *cantus* and others with the other within a basic two-system model. But the association of modes to »durus« and »mollis« qualities was also the result of the relative position of the modal finals along the circle of fifths within a single system. The modes or keys with E and A as finals (whether »phrygian« and »hypophrygian« or minor) were therefore connected to »durus« qualities, F major and G minor to »mollis«. Thus, within Monteverdi's Fourth Book of Madrigals, for example, the three modes that are most often used – d, a, and g – seem almost to be representatives of the different *cantus*. G minor normally features the two-flat (B flat) and one-flat (F) hexachords and is associated with the affect of »pietà«, and related qualities; A minor often features the natural (C) and sharp (G) hexachords and is associated with »durezza«; and D minor (in the *cantus durus*) always features the contrast and juxtaposition of flat and natural (or sharp) tonal areas, the extension of the variable B flat/natural of the dorian mode to the harmonic level. The sense of association to qualities derived from the terms »durus« and »mollis« is strongest in the case of A minor, which is very often used to set texts where hardness is specifically the subject matter. A madrigal such as »Voi pur da me partite, anima dura« from Book Four (Example 1) illustrates the association clearly.¹⁵

In Marco da Gagliano's madrigal, »Care lagrime mie« we find an even more striking instance of »durus«/»mollis« association within an A minor setting.

Marco da Gagliano: »Care lagrime mie« (Book Three, 1605)

Care lagrime mie,	My dear tears,
Messi dolenti di mie pene rie,	Sorrowful envoys of my cruel pain,
Poi che voi non potete	Since you are not able
Far mello, ohimé, quel core	To soften, alas, that heart
Che non have pietà del mio dolore,	Which has no pity for my grief,
Almen per cortesia	At least out of courtesy
Ammorzate l'accesa fiamma mia,	Put out my burning fire,
O pur crescete tanto	Or else increase so much
Ch'io mi sommergea nel mio stesso pianto.	That I drown myself in my own tears.

Taking his cue from the word »molle«, which is opposite to the quality that is emphasized in the poem, Gagliano creates an A minor »durus« setting in which the shifting tonal regions have symbolic notational associations as well. The first

15 Throughout Monteverdi's work the key of A minor has this association. In »Voi pur da me partite, anima dura« the dissonant exclamatory phrase »O meraviglia di durrezz'estrema« begins the final section of the work, introducing the B minor chord of the sharp hexachord. Near the end a perfect cadence to E (i. e., featuring the B major chord as dominant) constitutes the climax of the work. The idea of »hardness« is realized both in terms of dissonance and of sharpness.

Example One

a) Monteverdi, »Voi pur da me partite, anima dura« (Book 4), beginning

Voi pur da me par - ti - te a - -
 Voi pur da me par - ti - te a - -
 Voi pur da me par - ti - te a -
 Voi pur da me par - ti - te a - ni ma
 Voi pur da me par - ti - te a - -

- ni - ma a - - ni - ma du - ra
 - ni - ma a - - ni - ma du - ra
 - ni - ma a - - ni - ma du - ra
 du - ra a - - ni - ma du - - - ra
 - ni - ma a - - ni - ma du - - - ra

b) Excerpt from »Voi pur da me partite, anima dura«

O me - ra - vi - glia di du - rez - - z'e - stre - ma O me - ra -
 O me - ra - vi - glia di du - rez - - z'e - stre - ma O me - ra -
 O me - ra - vi - glia di du - rez - - z'e - stre - ma O me - ra -
 O me - ra -
 O me - ra -

vi - gli a di du - rez - - z'e - stre - ma
 vi - gli a di du - rez - - z'e - stre - ma
 vi - gli a di du - rez - - z'e - stre - ma
 vi - gli a di du - rez - - z'e - stre - ma
 vi - gli a di du - rez - - z'e - stre - ma

section (lines 1-2) ends with a plagal cadence to a B major chord that is preceded by the clash of $f^\#$ and g' («pene ria»). At this point (mm. 9-11) Gagliano notates all four appearances of the pitch class F sharp with *quadro* (our natural) signs instead of the usual sharps (he had already notated the $f^\#$ of measure two in the same manner).

Example Two: Excerpt from Marco da Gagliano, madrigal »Care mie lagrime« from Book Three (1605), showing »durus« associations for the *quadro* sign.

Ca - re la - - gri - me mi - - e, Mes - si do -

7 Poi che
len - - ti di mie pe - ne ri - e,
12' voi non po - te - te Far mol-le, ohi-me,
voi non po - te - te far mol - - le, ohi-me.
8 Far mol - - le, ohi-me

The $f^\#$ of measure five and the $d^\#$ of measure eleven, as well as the remaining sharps before the ending of the madrigal, he simply notates with the sharp sign. The singling out of the F sharps in the first section and their culmination with the cadence on »pene ria« makes the important statement that the setting is conceived as »durus« in tonality and affective character. The *quadro* sign represents more than a mere »accidental« raising of the pitch of the note F by a semitone. It indicates a shift of hexachord, in that the F sharps represent the B *quadro* of the natural hexachord transposed up a fifth.¹⁶ The reason for this device is clear. For with the word »molle« in the fourth line Gagliano shifts to the *cantus mollis*, introducing the E flats and B flats necessary to a complete shift of system.¹⁷ With »del mio dolore« in line five he returns to cadence in A minor (with Tierce de Picardie). The F sharps of measures twenty-four through thirty are notated with the sharp

16 Gagliano's madrigal has been published in DAVID S. BUTCHART, *I Madrigali di Marco da Gagliano*, *Civiltà Musicale Medicea collana di studi musicologici e organologici*, diretta da Mario Fabbri, Vol. 1 (Florence: Leo S. Olschki, 1982), pp. 64-66. On further uses of the *quadro* sign see Example 11, below; also note 56.

17 That is, the tone B flat would represent a modulation to the one-flat hexachord of the natural system, whereas E flat represents the two-flat hexachord and hence the *cantus mollis*.

sign, not the *quadro*, since they do not effect shift of hexachord and are not juxtaposed to an overt representation of the *cantus mollis*.

Once again at the end of the piece Gagliano introduces the *quadro* sign, now for the words »nel mio stesso pianto«, and this time involving transposition of the B »molle«/»quadro« at the pitch level of the natural and sharp (durus) hexachords of the *cantus durus*.

Example Three: Ending of Marco da Gagliano, »Care mie lagrime«

The musical score consists of three systems of staves. The first system has two vocal staves (Soprano and Alto) and a bass staff. The lyrics are: "stes - - so pian - - - to" for the upper voices and "nel mio stes - - so pian - - to" for the bass. The second system continues the vocal lines with lyrics: "Nel mio stes - - so" for the upper voices and "nel mio stes - - so pian - - to" for the bass. The third system shows the final cadence with lyrics: "to." for the upper voices and "pian - to." for the bass. The score includes various musical notations such as notes, rests, and accidentals (sharps and flats).

Each of the five voices features an oscillation between the normal diatonic whole tone and a chromatically raised pitch: d", e", d"#, e" (soprano); g', a', g'#, a (alto); e', f', e', f'#, e' (tenor); d' [f, a], c' [a], c'# (quinto); a, b flat, a, b natural, a (bass). Of these pitches the b natural of the bass (m. 43) and the f'# of the tenor are raised by *quadro* signs, the d"#, g'# and c'# by sharp signs. The final cadence is neither a dominant/tonic nor a plagal cadence to A; instead, above the pedal tone a in the bass the oscillation just described forms the diminished chord d"#, a', f'#, a »weak« cadence, like that of measure eleven, that was devised to create a »durus« effect.

Gagliano's piece, although very interesting, is not of the same quality as the Monteverdi pieces discussed in this study. Gagliano is, however, very sensitive to what must be recognized as »durus«/»mollis« qualities throughout his madrigal and operatic *oeuvres* and to symbolic notational devices such as that just described.¹⁸ Here he puns on the word »molle« and the less directly expressed »durus« quality of the text, just as Monteverdi did with the word »dura« in the madrigal mentioned earlier and the one we will discuss next. It is no mere empty rhetorical device, however, but an expression of the two-system tonal framework within which this music was conceived.

II. Monteverdi's three-part cycle »Ch'i' t'ami« (Book Five)

In keeping with the fact that the word »durus« (hard or harsh) is always treated pejoratively (and often with some form of sharp effect) in his settings, Monteverdi composed the shift from *cantus mollis* to *cantus durus* in pieces from the fifth and sixth madrigal books in a manner that expresses the qualities associated with the word. In Book Five Monteverdi reduces the number of finals to D and G, featuring modes on both finals in each of the two *cantus*. At the center of the collection, preceded mostly by madrigals in the *cantus mollis* and followed mostly by madrigals in the *cantus durus* is the cycle of three madrigals, »Ch'i' t'ami«, the first and third madrigals of which shift from *cantus mollis* to *cantus durus* — that is, they involve *mutatio modi* via shift of *signatio*. This is the first instance of such a shift in the Monteverdi madrigals. The cycle centers around the juxtaposition of hardness and softness, the former represented by the poet's view of the hard-heartedness of his beloved, whom he compares in the opening madrigal to all the objects of the natural world who have been moved (»inteneriti«, literally »softened«) by the poet's lamentations. For the final four measures of the setting, completing the text »from the hard stumps and stones of these rugged mountains that I have so often softened to the sound of my lamentations«, Monteverdi drops the *cantus mollis* signature for the final four measures, on »[suon] de miei lamenti« (of my lamentations).

18 Besides the instances given here and in Example 11 Gagliano uses the *quadro* sign fairly frequently throughout his work, where it is always readily distinguished from his use of the sharp sign. It is always used for the pitches E, B, F in contexts where shift from E flat (two-flat to one-flat hexachord), B flat (one-flat to natural hexachord) or F (natural to sharp hexachord) takes place. See for example BUTCHART, I Madrigali di Marco da Gagliano, pp. 60 (mm. 57-59), 74 (m.6), 78 (mm. 8-9), 79 (mm. 19, 20, 24, 26). Such passages always appear in pieces where the sharp sign is used elsewhere (occasionally in close proximity) for the same pitches. Gagliano appears to use the *quadro* for symbolic purposes even more than as a sign of hexachord transposition. Thus, in some pieces with modulation into »deep« sharp regions (e.g., BUTCHART, pp. 79-80, mm. 33-43) he does not use the *quadro* sign. In his opera *La Flora* (Florence, 1628. Facsimile reprint with preface by PRIMAROSA LEDDA, Bologna: Forni Editore, 1969) its several uses mix the symbolic and the »hexachordal« (see pp. 32, 64, 88, 106, 129).

Example Four: Monteverdi, Ending of first madrigal in three-part cycle »Ch'i t'ami«

Chi ho sì spesse
Chi ho sì spesse
Chi ho sì spesse
Chi ho sì spesse
Chi ho sì spesse

vol-te In-te-ne-ri-to al suon de' miei la-men-ti.
vol-te In-te-ne-ri-to al suon de' miei la-men-ti.
vol-te In-te-ne-ri-to al suon de' miei la-men-ti.
vol-te In-te-ne-ri-to al suon de' miei la-men-ti.
vol-te In-te-ne-ri-to al suon de' miei la-men-ti.

Taken on its own it would be at least somewhat difficult to understand this act; the final cadence does introduce a harmony that is »foreign« to the flat system — a B minor seventh chord that is the result of his moving the bass of the sustained D major chord on »suon« down a third to B, while holding the d, f sharp and a' of the upper voices. This chord hardly necessitates the shift, however; and, in fact, we encounter very similar effects at the close of a madrigal from Book Four without such a shift.¹⁹ The word »intenerito« is set to a flattened tone here as it is at a similar

¹⁹ The final phrase of »Anima mia, perdona« also cadences to g/G (that is, to a G minor cadence with a *Tierce de Picardie*), introducing a B minor seventh chord shortly before the final harmonies. Artusi quotes the measure in which this appears (along with the preceding and following measures) in his famous discussion of the faults in Monteverdi's work. See GIOVANNI MARIA ARTUSI, *L'Artusi, Overo Delle Imperfezioni della Moderna Musica* (Venice, 1600), facsimile edition with preface by GIUSEPPE VECCHI, Bologna: Forni Editore, 1968, p. 40.

place in *Orfeo* when Orfeo speaks of softening the hearts of the underworld deities.²⁰ In »Ch'i' t'ami« the B flat of »intenerito« gives way to the B natural of »de miei lamenti«. The *cantus durus* ending must therefore be taken to make the point that, although the »beasts, the hard stumps and rocks« (i duri sterpi e sassi) are softened by the lover's plaint, his beloved is not. The dropping of the signature expresses the implied hardness of the negative proposition. And this very point – the beloved's hardness – is the subject of the third madrigal of the cycle, »Ma tu, piu che mai dura«, in which the shift from *cantus mollis* to *cantus durus* divides the madrigal in half (38 versus 37 measures). In the first madrigal, therefore, the shift of *cantus* is not a necessity of the notation of an extreme tonal shift. It looks ahead to the ending of the cycle as a whole where such a shift does take place.

After the »durus« ending of the first madrigal the second madrigal, »Deh! bella e cara e si soave un tempo«, abounds with the familiar expressions that commonly draw forth a »mollis« setting from Monteverdi. The poet revels in the sweet serenity, compassion and love shown him by his beloved in the past, but now no longer. He prays for the »glance« of love that will accompany his »death«. Monteverdi emphasizes the two-flat hexachord in the first half of the setting, then the one-flat, in which it closes.

The third and final madrigal of the cycle expresses an unrelieved bitterness at the beloved's unyielding response.

Ma tu, più che mai dura

Ma tu, più che mai dura,
Favilla di pietà non senti ancora;
Anzi t'inaspri più,
quanto più prego.
Così senza parlar
dunque m'ascolti?
A chi parlo, infelice?
a un muto marmo?
S'altro non mi vuoi dir,
dimmi almen: »Mori!«
e morir mi vedrai.
Questa è ben, empio Amor,
miseria estrema,
Chi si rigida ninfa
ne mi risponda,
E l'armi d'una sola e sdegnosa
e cruda voce
Sdegni di proferire
al mio morire.

But you, more hard than ever,
Feel now no spark of compassion;
on the contrary, you become more bitter
the more I entreat you.
Thus without speaking
you nevertheless hear me?
To whom do I speak, unhappy man?
to a mute statue?
If you do not want to say anything
else to me, then say »Die!«
and you will see me die.
This is surely, pitiless love,
the limit of misery,
That so rigid a maiden
does not respond to me,
And the weapon of a single disdainful
and cruel word
She scorns to pronounce
at my death.

Although the first half of the setting is in *cantus mollis* Monteverdi sets the word »dura« in relief at the cadence of the opening phrase by means of a harsh

20 *Orfeo*, Act II, »Tu se'morta«: »e intenerito il cor del Re de l'ombre«. On »intenerito« Monteverdi moves the vocal line from g# to g and the bass from B to B flat.

semitonal clash between c" and b natural. »Pietà« and »inaspri« likewise receive their respective flat and sharp emphases. But in this respect the events surrounding the key signature shift virtually eclipse the remainder of the setting.

Example Five: Excerpt from »Ma tu, più che mai dura« featuring shift from *cantus mollis* to *cantus durus*

S'al - tro non mi voi dir dim_m'al_men mo - ri E mo - rir

S'al - tro non mi voi dir dim_m'al_men mo - ri E mo - rir

S'al - tro non mi voi dir dim_m'al_men mo - ri E mo - rir

S'al - tro non mi voi dir dim_m'al_men mo - ri E mo - rir

S'al - tro non mi voi dir dim_m'al_men mo - ri E mo - rir

mi ve - dra - i que - - st'è ben em - pi'a - mor mi -

mi ve - dra - i que - - st'è ben em - pi'a - mor mi -

mi ve - dra - i que - - st'è ben em - pi'a - mor mi -

mi ve - dra - i que - - st'è ben em - pi'a - mor mi -

mi ve - dra - i que - - st'è ben em - pi'a - mor mi -

- se - ria e - stre - ma Che si ri - - gi - da

- se - ria estre - ma Che si ri - gi - da

- se - ria e - stre - ma Che si ri - - gi - da

- se - ria e - stre - ma Che si ri - - gi - da Nin - -

- se - ria e - stre - ma Che si ri - gi - da

Nin - fa non mi ri - spon - da E l'ar - mi d'u - na

Nin - fa non mi ri - spon - da E l'ar - mi d'u -

nin - fa non mi ri - spon - da E l'ar -

- fa non mi ri - spon - da E l'ar - mi d'u - na

Nin - fa non mi ri - spon - da E l'ar - mi

so - la Sde - gno - sa cru - da vo - ce Sde - gni di

- na so - la Sde - gno - sae cru - da vo - ce Sde - gni di

mi d'u - na so - la Sde - gno - sae cru - da vo - ce Sde - gni di

so - la sde - gno - sae cru - da vo - ce Sde - gni di

d'u - na so - la sde - gno - sae cru - da vo - ce Sde - gni di

pro.fe.ri - re al mio mo - ri - - re

pro.fe.ri - re al mio mo - ri - - re

pro.fe.ri - re al mio mo - ri - re Sde.gni di pro fe

8 pro.fe.ri - re al mio mo - - ri - re Sde.gni di pro fe -

pro.fe.ri - re al mio mo - ri - - re

Sde.gni di pro fe - ri - re al mio

al mio mo - ri - re al

- ri - re al mio mo - ri - re Sde.gni di pro.fe.ri - re

8 - ri - re al mio mo - ri - re al mio

Sde.gni di pro.fe.ri - re al

mo - ri - - re al mio mo - ri - - re.

mio mo - ri - - re al mio mo - ri - - re.

al mio mo - ri - - re.

8 mo - ri - - re al mio mo - ri - - re.

mio mo - ri - - re al mio mo - ri - - re.

Before the shift the music moves purposively in the sharp direction on the phrase »S'altro non mi voi dir dimm'almen mori, e morir mi vedrai«. This phrase features a range from B flat to D/G. The shift of signature is aligned with the words »Quest'eben empi'amor miseria estrema«. We may remember that the shift to the hard hexachord accompanied the expression »O meraviglia di durezza estrema« in »Voi pur da me partite, anima dura« in Book Four. In both cases the shift leads to tonal motion to the sharp limit of the sharp hexachord, a B/E cadence.

The initial cadence to G after the shift in »Voi pur« resembles that at the close of the opening madrigal of the cycle in its general harmonic and contrapuntal design. And from this point there is a progressive sharpening with cadences to D, A and finally E. The B/E cadence is the »estrema« of the sharp hexachord. But the *cantus durus* is unequivocally established with the series of four D major phrases that immediately follow the G major »introduction« to the section. Within that fourteen-measure passage, on a six-measure double phrase setting the words »and scorns to pronounce the 'weapon' of a single disdainful, cruel word«, Monteverdi introduces a very sharp series of harmonies (D, b, [g#⁶dim.], E, A⁶, D, b, E, [c#], A, D, c#⁶dim., D) that cadence in D major with secondary cadential emphasis on A and feature harmonies that even exceed the range of the hard hexachord (C sharp minor, above all). After these tonal events the continuing ascent of the cadence degrees by fifths to a/A and e/E, the latter via its dominant, B major, lead to the »death« for which the poet hopes from his beloved; their intrinsically minor character is used to add a »descent« quality to the words »al mio morire«. The cadence to E marks a turning point; the meaning of death in this context is, of course, sexual; and the E cadence is simultaneously the peak of the ascent and the beginning of descent. Monteverdi reverses the tonal direction downward, cadencing on a, then d and finally G (the final »al mio morire«). For the last two of these cadences the tone b flat returns, not enough in itself to bring about a return to the *cantus mollis*, but immediately suggestive of the word »morire« via the languid quality associated at the time with flats.²¹

The key-signature shift in this madrigal has great symbolic meaning. It is the sign of a larger process of tonal juxtaposition as a dramatic device that will emerge more fully in *Orfeo* in conjunction with many other features of the musical language. We cannot speak without qualification of the piece as modulating from G minor to G major, since Monteverdi does not juxtapose those two keys. The series of ever sharper cadence degrees that leads to the »al mio morire« cadence in E is at least equally important.

Another madrigal that deals with the same form of *mutatio modi* is a setting of the sonnet »Zefiro torna e'l bel tempo rimena« from Book Six. In the later work every aspect of the juxtaposition is more highly stylized, the tonal *mutatio* coming with a conspicuous shift in the text between the octave and the sestet of the poem.

21 See, for example, PENNA, *Li Primi Albori Musicali*, pp. 34-35; PRAETORIUS, *Syntagma Musicum III* (Wolfenbüttel, 1619), facsimile ed. WILIBALD GURLITT (Kassel: Bärenreiter, 1958), p. 81.

Zefiro torna e'l bel tempo rimena

Zefiro torna e'l bel tempo rimena,
E i fiori e l'herbe, sua dolce famiglia
E garir progne e piagner filomena
E primavera candida e vermiglia.

Zephyrus returns, and brings back beautiful weather,
And the flowers and plants, his sweet family,
And the warbling swallow and the lamenting nightingale,
The white and rosy springtime.

Ridono i prati e'l ciel si rasserena
Giove s'allegra di mirar su figlia
L'aria el'acqua e la terra è d'amor piena
Ogn'animal d'amar si racconsiglia.

The meadows laugh and the sky clears;
Jove rejoices to gaze upon his daughter;
The air, water and earth are full of love;
Every animal is occupied with love.

Ma per me, lasso, tornano i più gravi
sospiri che dal cor profondo tragge
Quella ch'al ciel se ne portò le chiavi

But for me, alas! the heaviest sighs return,
Drawn from the depths of my heart
By the one who carried off to heaven its keys;

E cantar augelletti e fiorir piaggie
E'n belle donn'honesti atti e soavi
Sono un deserto e fer'aspre e selvaggie.

And the singing of the little birds, the flowers on the bank
And the sweet, innocent behavior of beautiful women
Are a desert, wild beasts and savages.

The nature of the shift in the text of this madrigal is almost too obvious for comment. The outside world rejoices at the coming of spring (lines 1-8) whereas the poet/lover alone is tormented by his feelings (9-14). In this respect the poem is comparable to several others among Monteverdi's madrigals, such as »A un giro sol« from Book Four and the later »Zefiro torna e di soave accenti« from the 1632 *Scherzi Musicali*. In both those settings – in which the change of tone comes with the poet's lamenting the torments of love – Monteverdi had made a *mutatio toni* between the two halves. In the Book Six »Zefiro torna« setting, however, we learn in the penultimate stanza that an objective reality underlies the final set of antitheses: the beloved is dead. This difference perhaps underlay Monteverdi's decision to make a shift not just of mode but of *cantus* in this setting.²²

In »Zefiro torna e'l bel tempo rimena« the shift of *cantus* has the same association as it does in the three-part cycle of Book Five. Now, however, the antithesis is more pronounced, dramatized one might say, by an array of style contrasts, just as similar tonal changes are in *Orfeo*. For the first time in any madrigal Monteverdi juxtaposes triple and quadruple meters. The style of the opening triple-meter section is one in which consistency of affect and tone are paramount, in which the key of G minor (with its secondary cadences to the »mezzana« and »indifferente« degrees: d and B flat) is presented in straightforward fashion in two strophes that are repeated in lightly varied fashion. The second section, in *cantus durus*, does not repeat its strophes musically, utilizing instead a madrigal style that is conceptually related to recitative, with its prominent discontinuities and individual word emphases that take precedence over the ideal of stylistic integration. Its tonal character is likewise far less predictable and consistent in mode than that of the first section. Instead of utilizing the secondary cadence degrees of a single mode, it

22 And the manner in which the death is expressed confirms this view. That is, the line »Quella ch'al ciel se ne porto le chiavi« (She who carried off its keys to heaven) contains a pun on the use of the word »chiave« in Italian to signify key signature as well as cleff. See, for example, BANCHIERI, *L'organo suonarino* – Quinto Registro, p. 12, and in many other places throughout the treatise.

makes a strong A minor cadence at about the mid point (and an E major cadence at the one-quarter point), these cadences serving as focal points for the sharp, dissonant music that enters after the key signature shift.

Example Six: The shift from *cantus mollis* to *cantus durus* in Monteverdi's »Zefiro torna e'l bel tempo rimena« (Book 6, 1614)

The first system of the musical score consists of five staves. The top four staves are vocal parts, and the bottom staff is the basso continuo. The lyrics are: "si rac - con - si - - glia Ma per me" on the first line, "si rac - con - si - glia Ma" on the second, "si rac - con - si - glia Ma per me" on the third, and "- mar si rac - con - si - glia Ma per me las - so" on the fourth. The music features a key signature change from one flat to one sharp (F#) at the beginning of the second measure.

The second system of the musical score consists of five staves. The lyrics are: "las - so tor - na_no i più gra - vi so - spi -" on the first line, "per me las - so tor - na_no i più gra - vi so - spi -" on the second, "las - so tor - na_no i più gra - vi so - spi -" on the third, and "- so tor - na_no i più gra - - - vi so - - spi -" on the fourth. The music continues with the same key signature and features a key signature change from one sharp to one flat (F) at the beginning of the second measure.

The image shows a musical score for five voices, likely from a madrigal. The lyrics are "ri che dal cor". The score is written on five staves. The first two staves are for Soprano and Alto, the third for Tenor, the fourth for Bass, and the fifth for a lower voice (possibly Bass or Tenor). The lyrics are: "ri che dal cor" on the first staff, "ri che dal cor" on the second, "ri che dal cor" on the third, "ri che dal cor" on the fourth, and "ri" on the fifth. The music is in G minor, as indicated by the key signature of one flat.

Once again the G minor/major shift is in some respects secondary to that of the flat/sharp, in that it is never given any sense of immediacy. Rather, at the point of the key signature shift, Monteverdi underscores the adversative »Ma, per me« by means of a shift from D *major* to D *minor*, making the local antithesis the opposite of the »structural« one. The latter (g/G) is never presented as a direct juxtaposition. Monteverdi nevertheless sets apart the final line of text, »Sono un deserto e fere aspre e selvaggie« as a G major setting of approximately one-third of the section and he takes pains to give it a »durus« character at certain points, introducing the most biting dissonances of the madrigal for the words »fer'aspre« and both sharp and dissonant effects for »selvaggie«. It seems to be the case here, as in »Ma tu, più che mai dura«, that the nature of the polarity that Monteverdi perceives between minor and major modes with the same final is not nearly as great in terms of its affective correlatives as that between G major (mixolydian) and A minor (probably conceived as mode three: phrygian!). The latter juxtaposition is the one that Kircher described in his famous passage on Carissimi's *Jephtha*.²³ What this means is that the shift from g to G in itself does not convey the quality of a *mollis/durus* affective shift; it can be the framework for different effects. The more important quality in the affective shift is the motion to a relatively sharp region. Understanding of the tonal plan of *Orfeo* hinges upon these points.

As a simple illustration of Monteverdi's punning on the idea of *mutatio modi* in relation to a verbal text, and in another work that changes from *cantus mollis* g to *cantus durus* G, we might consider the two halves of the *ballo* »Tirsi e Clori« which ends the Seventh Book of Madrigals (1619). In the first half Tirsi and Clori sing a series of solos in alternation, Tirsi singing in G minor (or the *cantus mollis* dorian mode) and Clori in D minor (*cantus mollis* aeolian). The contrast of keys was undoubtedly intended to represent the fact that, as Clori says in her first solo, all the other lovers are united while they are not; Monteverdi extends the contrast by setting Tirsi's solos in triple meter and Clori's in quadruple. After two solos each

23 KIRCHER, *Musurgia*, p. 603.

the two lovers join in a G minor duet, ending with the words »Balliamo ed intanto spieghiamo col canto con dolci bei *modi* del ballo le lodi« (Let us dance and at the same time express in song the praises of dancing with sweet beautiful *modi*). Monteverdi puns on the double meaning of »*modi*« that comes about if we consider the musical meaning of the word.²⁴ The *ballo* that follows makes a shift of system to the *cantus durus*, and also to the key of G major (with many secondary cadences to other sharp major keys). In the shift of system (or *mutatio modi*), therefore, the double meaning of *durus* and *mollis* that was explicit in Germany (hard/soft-sharp/flat versus major/minor) is a feature of the tonal style.²⁵

The change to *cantus durus* G that takes place in »Tirsi e Clori« expresses an affective shift of positive character, the opposite of the »*durus*« qualities described in the Book Four and Five settings. That fact may have a wider significance than we might expect. Throughout the madrigal books as a whole there are two related large-scale tonal patterns that do not exactly coincide. One is the progressive increase in *cantus durus* settings relative to those in *cantus mollis*. The *Sacrae cantiunculae* of 1582 and the *Canzonette a tre voci* of 1584 are dominated by the *cantus mollis*: eighteen out of twenty-five settings in the former collection, twenty out of twenty-one in the latter. Likewise, eighteen of twenty-one settings in Book One and fifteen of twenty-one in Book Two are in the *cantus mollis*. From Books Three through Eight the dominance of the *cantus mollis* decreases steadily: eight of fifteen (III), seven of nineteen (IV), four of thirteen (V), one of ten (VI), three of twenty-nine (VII) and one of twenty-two (VIII).²⁶ At the same time the dominance of the minor modes decreases in those books, although in considerably less regular fashion: twelve of fifteen (III), seventeen of nineteen (IV), nine of thirteen (V), nine of ten (VII), thirteen of twenty-nine (VII) and eleven of twenty-two (VIII).²⁷ The increase in *cantus durus* settings takes place earlier than that of pieces in the major mode. From the standpoint of the former pattern (*mollis* versus *durus*) Books Five through Eight express the change most clearly, from that of the latter (minor versus major), Books Seven and Eight stand out. The

24 Literally, the passage should be translated »in a sweet beautiful *manner*«.

25 The tradition behind this usage is discussed in my forthcoming book, 'Tonal Allegory in the Music of J.S. Bach' (University of California Press, 1990).

26 These numbers reflect my counting madrigal cycles as single works. Counting them as individual madrigals gives the following numbers: nine of twenty (Book III), six of twenty (IV), nine *durus*, eight *mollis*, two that shift from *mollis* to *durus* (V), fifteen *durus*, one *mollis* and one that changes from *mollis* to *durus* (VI), twenty-five *durus*, three *mollis* and four that change *cantus* (VII), thirty-one *durus*, one *mollis* and three that shift *cantus* (VIII). Counted this way the figures are even more overwhelmingly indicative of the extent of the preference for *cantus durus* settings in the later works.

27 As was the case for my enumeration of *mollis/durus* settings in the madrigal books, that for minor and major does not take account of cycles. Counting the individual madrigals of the cycles as separate works the numbers are: sixteen minor, four major (III), eighteen minor, two major (IV), thirteen minor, four major, two that shift from minor to major (V), sixteen minor, one major, one that shifts from minor to major (VI), sixteen minor, fifteen major and one that shifts from minor to major (VII), thirteen minor, nineteen major and three that shift from minor to major (VIII). Now the change of preference occurs only with Books Seven and Eight, where the relationship between minor and major settings is equally balanced for the first time.

two coincide in Books Seven and Eight, in which, as the heading of the former collection makes clear (*CONCERTO*), the concertato style is fully established.²⁸

III. »Durus«/»mollis« in the *Combattimento di Tancredi e Clorinda* (1624)

A few years after the Seventh Book the *Combattimento di Tancredi e Clorinda* (1624), marks another milestone in what might be called the »liberation« of the *durus* affective sphere via the emergence of sharp tonal regions and the sharp-major keys in particular. This stage is connected to the *stile concitato* which in Monteverdi's *oeuvre* appears almost exclusively in conjunction with sharp-major keys (especially C, G and D). Monteverdi did not publish the *Combattimento* until 1638, in the *Madrigali Guerrieri ed Amorosi*, where he included two important statements for the present study. In the first, the preface to the collection as a whole, he announces his discovery of the so-called *stile concitato*, dating its first appearance back fourteen years to the composition of the *Combattimento*.²⁹ In the second, the prefatory remarks affixed to the *Combattimento* itself, he refers to certain passages of the work as *suoni incitati e molli*, recalling the terminology he uses in the preface to the collection: *concitato, temperato and molle*.³⁰

In his preface Monteverdi claims that earlier music had the capacity of arousing only the »temperate« and »soft« affections, not the »excited«. ³¹ This is suggestive in light of the fact that the appearance of the *stile concitato* coincides closely with the abovementioned patterns of increase in both major-key and *cantus durus* settings in the madrigal books. It was the sharp more than the major tonal region that had been conspicuously absent from musical composition in the preceding centuries. Flat transpositions and »modulations«, as well as key signatures, however, had been a feature of renaissance tonality, as the enormous tendency for Lowinsky's »chain reaction« modulations to be in flats rather than sharps indicates.³² With the appearance of the *stile concitato* a new aspect of the *cantus durus* receives what might be called an emblematic style. The manner in which Monteverdi may be supposed to have derived, or at least rationalized this new element is of considerable interest, even if it must remain speculative in some respects.

Monteverdi's remarks on how he developed the notion of repeated sixteenth notes on the strings from the spondaic poetic foot are well known, as are his re-

28 The full title of the collection is 'CONCERTO. Settimo Libro de Madrigali A 1. 2. 3. 4. & Sei Voci, Con altri generi de Canti'. Noteworthy are the facts that the five-part madrigal, the mainstay of the earlier books, is missing, and for the first time all settings are *concertato* (that is, have obligatory basso continuo).

29 In MALIPIERO's edition of the collected works (*Tute le opere di Claudio Monteverdi*, Vol. VIII/1) the preface to the collection appears at the beginning following the title and dedication pages, that to the *Combattimento* on pp. 132-133. I refer also to the English translation in OLIVER STRUNK, *Source Readings in Music History* (New York: Norton, 1950), pp. 413-415.

30 MALIPIERO, *Tutte le Opere*, VIII/1, p. 132.

31 MALIPIERO, *Tutte le Opere*, VIII/1, STRUNK, *Source Readings*, p. 413.

32 This point can be easily verified now that Lowinsky's collected essays have been republished as a set. EDWARD E. LOWINSKY, *Music in the Culture of the Renaissance and Other Essays*, two vols., edited by BONNIE J. BLACKBURN. Chicago: University of Chicago Press, 1989.

ferences to Plato and Boethius.³³ In general, Monteverdi's statements about the three affective states and his calling them *genera* have been considered to refer to the threefold classification of melody types by Aristotle and Aristoxenus and the affective genera mentioned by Plato and Boethius; and, again in a general way, that is probably true.³⁴ But Monteverdi does state that the art of music refers clearly to the three affective states via its three *terms* (*termini*), *concitato*, *molle* and *temperato*.³⁵ And while it might be going too far to connect these expressions directly with the three hexachords – *durus*, *mollis* and *naturalis* – we must note that there is certainly a resemblance. In fact, the music of Monteverdi's time did not have three such »terms« as he says, but the music *theory* had at least two of them, and it is probably to the tradition behind their use to which Monteverdi refers.

At several points in the *Musurgia Universalis*, for example, Kircher equates the terms *durus* and *incitato*, in one place using the expression »In cantu duro sive incitato«, as distinct from »in cantu, b, molli« and »in cantu naturali«. ³⁶ This passage refers to the Greek genera, not to the modern hexachords, but it indicates a connection between the two that is the root of Monteverdi's ambiguous reference to three musical terms that correspond to the three emotional states. The Greek genera and tetrachords were directly related to the affective states and melody types to which Monteverdi's affective genera have been connected. It was this direct connection between music and affect in Greek music that the humanist movement of the late sixteenth century found lacking in renaissance polyphony, that led ultimately to the creation of opera. When Monteverdi quotes a brief passage from the first chapter of Boethius' *De institutione musica* on the power of oppositions to move the mind, it is to a part of the treatise in which Boethius refers to »hard« and »soft« modes, a passage in which there is an unmistakable resonance with the Greek genera and the qualities of hardness and softness traditionally associated with them since ancient times.³⁷ When Boethius speaks of different categories of people to whom these contrary affections appeal, as »harsh«, »restrained« and »lascivious and effeminate«, he moves into the ethical sphere of Plato's *Republic*, to

33 STRUNK, pp. 413-414.

34 *Ibid.*, p. 413, notes two through five.

35 »Havendo io considerato le nostre passioni, od'affettioni, del animo, essere tre le principali, cioè, Ira, Temperanza, & Humilità o supplicatione, come beni gli migliori Filosofi affermano, anzi la natura stessa de la voce nostra in ritrovarsi, alta, bassa, & mezzana: & come l'arte Musica lo notifica chiaramente in questi tre termini di concitato, molle, & temperato, ne havendo in tutte le compositioni de passati compositori potuto ritrovare essemplio del concitato genere, ma ben si del molle & temperato; ...«. MALIPIERO, *Tutte le Opere*, VIII/1.

36 The passage cited appears in Book One, p. 639. In an earlier chapter (XIII), entitled 'De triplici Genere Musicae & Tetrachordum dispositione', Kircher has a heading »De Genere Chromatico. Exemplum Chromatici Syntoni sive incitati«, which is juxtaposed to the preceding example »Tetrachordum Chromatici mollis« in a manner suggesting that »Chromatici Syntoni sive incitati« is the equivalent of »Chromatici duri« (p. 142). A little earlier (p. 140), under the heading »De Diatonico Syntono«, he says »Diatonicum Syntonum quem alii quoque incitatum vocant«; this again follows a discussion entitled »De Diatonico molli«. The passage on p. 639, however, merges the Greek tetrachords with the modern hexachords, since it uses the hexachord names and provides solmisation syllables for the Greek intervals.

37 See ANICIUS MANLIUS SEVERINUS BOETHIUS, *Fundamentals of Music*, trans. with Introduction and Notes by CALVIN M. BOWER (New Haven 1989), p. 3. note 7, and Boethius's discussion of the genera on pp. 39-40 (also note 118).

which Monteverdi also refers.³⁸ Boethius, as Dahlhaus suggests, is modifying the tradition that extends at least as far back as Ptolemy, according to which the diatonic genus was considered hard and the enharmonic soft, while the chromatic lay in between.³⁹ The Greek tradition was cited in many humanistic music treatises from the sixteenth century, including those we know that Monteverdi read in some form or other: Zarlino, Artusi and Galilei, for example.⁴⁰

Monteverdi disavows elsewhere any intention of attempting to recover the nature of Greek music.⁴¹ But there is no doubt that he considered its general affective qualities as described by Plato to be of universal validity. Certain aspects of the humanist tradition of citing Greek theory, therefore, probably made an impact on him. Certainly among treatises written by musicians who were not primarily oriented towards historical, antiquarian or philological correctness with respect to the Greek authors, the theoretical terms of the ancient music were used loosely. The hexachords, for example, were often called genera, and an error that was common enough to have been condemned by authors as widely separated in time as Gaffurius, Kircher and Mattheson was the designation of sharps as the chromatic genus and flats as the enharmonic.⁴² In the seventeenth century such usages were invariably related to the expansion of tonal range. Even Heinichen's first presentation of the *Musicalischer Circul* is not immune to this inaccurate linking of the genera names to the modern key regions (see Figure 2). Not only do the hexachord names descend from ancient Greek theory, where they had direct affective correlatives, but the use of the word »hard« or »durus« (syntanon) in Greek music apparently derived from the greater tension of the strings of inner notes of the tetrachords so designated and vice versa for the word »mollis« (malakon).⁴³ Thus Monteverdi's device for representing the *stile concitato* on the strings has a distant resonance that may not be entirely fortuitous.

In fact the traditional associations of the word »durus« cited by Dahlhaus fall into two distinct categories: those that relate to the words »hard« or »harsh« (aspre) and those that relate to the word »fortior«.⁴⁴ The former can be considered to underlie the association of the shifts to the *cantus durus* in the three-part cycle

38 The first chapter of Boethius's treatise is also translated into English in STRUNK, *Source Readings in Music History*, pp. 79-84. See pp. 80-81.

39 DAHLHAUS, »Die Termini Dur und Moll«, p. 282. Dahlhaus quotes from Chapter I, number 21 of the 'Institutio musica': »[...] diatonum quidem aliquanto durius et naturalius, chroma vero iam quasi ab illa naturali intentione discedens et in mollius decidens, enharmonium vero optime atque apte coniunctum.«

40 GIOSEFFO ZARLINO, *Istitutioni Harmoniche* (Venice 1573). Facsimile edition (Ridgewood, New Jersey: The Gregg Press, 1966), p. 100. VINCENZO GALILEI, *Dialogo Della Musica Antica et Moderno* (Florence 1581). Facsimile edition edited by FABIO FANO (Rome: Reale Accademici d'Italia, 1934), p. 110. ARTUSI, *Considerationi Musicali*. Facsimile edition published in: *L'Artusi Overo Delle Imperfettioni Della Moderna Musica*. See p. 17.

41 Letter to Giovanni Battista Doni of February 1634. See: *The Letters of Claudio Monteverdi*, translated and edited by DENIS STEVENS (Cambridge: Cambridge University Press, 1980), pp. 414-415.

42 FRANCHINUS GAFFURIUS, *Practica musicae* (Milan 1496), trans. and ed. IRWIN YOUNG (Madison, Wisconsin: University of Wisconsin Press, 1969), p. 26; KIRCHER, *Murgia I*, p. 672; MATTHESON, *Das neu-eröffnete Orchestre* (Hamburg 1713), pp. 56-57.

43 DAHLHAUS, »Die Termini Dur und Moll«, pp. 280, 282.

44 *Ibid.*, pp. 282, 284.

from Book Five and »Zefiro torna, e'l bel tempo rimena« from Book Six. The latter is invoked for the first time in the *combattimento* as Monteverdi suggests in his quotation from Plato: »Take that harmony that would fittingly imitate the utterances and the accents of a brave man (*fortiter*) who is engaged in warfare.«⁴⁵ Both usages appear in the *Combattimento* and are clearly recognized as such. The »suoni incitati e molli« are, of course, primarily the G major sections of combat and the G minor passages that are juxtaposed to them. The greatest such juxtaposition occurs in measure 202 of the score, on the word »sangue«, as the two combatants are forced to break off the fight because of fatigue and loss of blood.⁴⁶

Example Seven: Shift from G to g in the *Combattimento di Tancredi e Clorinda* (1624)

45 Preface to the 'Madrigali Guerrieri et Amorosi', Tutte le Opere VIII/1: »Suscipe Harmoniam illam quae ut decet imitatur fortiter euntis in pretiam, voces: atq: accentus.« English translation in STRUNK, *Source Readings*, p. 413.

46 Tutte le Opere VIII/1, p. 144. From the »Principio della Guerra« of measure 133 until this point the harmony has been an almost entirely unchanging G major, while the string and vocal figuration has become more and more intense, culminating in the full-blown *stile concitato* as described by Monteverdi from mm. 163-174. From the point the pace slackens and increases systematically to a second such climax (mm. 199-202), at the peak of which Monteverdi makes the shift to G minor. Over the next ten and one-half measures of G minor harmony the string parts descend steadily; and the voice continues the descent after the strings drop out, sustaining the G minor harmony through most of the seven measures leading to the D minor cadence in 227.

tor-nano al fer-ro e l'unel'al - tro il tingedi mol - to san-gue

The first system of the musical score consists of a vocal line and a basso continuo line. The vocal line is written in a treble clef with a key signature of one flat (B-flat). It begins with a series of eighth-note runs, followed by a melodic phrase. The basso continuo line is written in a bass clef and provides harmonic support with a series of chords, including a sequence of six flats (B-flat, E-flat, A-flat, D-flat, G-flat, C-flat).

e stan-co e a-ne - lan-te e que-stie que-gli al fin

The second system continues the musical score. The vocal line features a melodic phrase with a slight rise and then a fall. The basso continuo line continues with a sequence of chords, including a sequence of six flats (B-flat, E-flat, A-flat, D-flat, G-flat, C-flat).

pursi ri - ti - ra e do-po lun - go fa-ti-car re - spi - ra

The third system concludes the musical score. The vocal line ends with a melodic phrase. The basso continuo line ends with a sequence of chords, including a sequence of six flats (B-flat, E-flat, A-flat, D-flat, G-flat, C-flat).

But the qualities generally associated with the words »mollis« and »durus« run throughout the *Combattimento*. When Tancredi and Clorinda renew the conflagration for the second time in another passage that is exclusively in G (mm. 299-316), they break off only for the fatal wounding of Clorinda. This time there is no immediate shift to G minor or the *cantus mollis*. Instead, Monteverdi jumps to a B major harmony, invoking the sharp hexachord and the older »durus« quality of bitterness.

Example Eight: Shift from the *stile concitato* to B major harmony in the *Combattimento di Tancredi e Clorinda*

The musical score consists of two systems. The first system includes a vocal line with lyrics: "e se la vi_ta non e - sce sdegno tien.la al pet - to u - ni_ta ma ecco hommi". Below the vocal line is a string accompaniment with a *forte* marking. The second system continues the vocal line with lyrics: "l'ho.ra fa.tal è giun - ta ch'el vi - ver di Clo - rin - da al suo fin de - ve". The string accompaniment in the second system shows a key signature change to B major, indicated by two sharps (F# and C#).

After sustaining the B major harmony for six measures Monteverdi works his way towards the *cantus mollis* in a set of stages that are measured via the circle of fifths by cadences to e/E (m. 340) and d (m. 364). The »goal« is the *cantus mollis* G minor of Clorinda's expressive solo accompanied by the well-known notated forte/piano representations of expiration on the strings. Yet, although the preceding cadences to e/E, a and d indicate an irrevocable, inevitable tonal motion in the flat direction, each of the cadences is itself preceded by a form of »mollis«/»durus« juxtaposition that presumably indicates Clorinda's struggle for life. Monteverdi indicates their meaning in the prologue when he speaks of »passioni contrarie«. For the first and strongest such juxtaposition, between B major and B flat, appears on »ella gia sente *morirsi* [B major] il *pie* [B flat] le manca egro e languente [e/E cadence]«.

Example Nine: Sharp/flat juxtaposition within the *Combattimento di Tancredi e Clorinda*

The other two (mm. 346-351 and mm. 362-364) confront B flat with E major and d/A, respectively.

The *Combattimento*, in fact, is conceived tonally in terms of »durus«/»mollis« oppositions, and Monteverdi's prefaces indicate that fact unmistakably, even if indirectly. A full study of the work is outside the scope of this study.⁴⁷ Even an analysis of its tonal style would not provide a complete picture of the nature of the idea of »durus«/»mollis« shift in Monteverdi's work, for there is a third association that does not appear in the *Combattimento*. The shift in »Tirsi e Clori«, according to which the minor (mollis) mode is not viewed pejoratively, but in which the shift to major (durus) nevertheless expresses a greater degree of »sweetness«, is the closest to the modern viewpoint on major and minor keys. The »prologue« to the Seventh Book appears in the form of the G major *Orfeo*-like strophic setting of Marino's »Tempora la cetra«, in which the warlike affections are explicitly rejected.⁴⁸ The association behind the shift in »Tirsi e Clori« is connected to similar shifts in *Orfeo*, to the role of the key of G major in that work and to the *Scherzi musicali* of 1607, whose style *Orfeo*'s G major solo »Vi ricorda i boschi ombrosi« imitates.⁴⁹ Despite its length and complexity *Orfeo* can be described in outline in terms of the tonal qualities I have described.

47 I have included an extended treatment of the work in my forthcoming book, 'Monteverdi's Tonal Language'.

48 »Tempo la cetra e per cantar gli onori/ di Marte alzo talor lo stil e i carmi;/ ma invan la tento e impossibil parmi/ ch'ella giammai risoni altro ch'amori.« The text thus resembles Marino's »Altri canti di Marte«, which begins the second part of the Eighth Book of Madrigals (the Madrigali Amadorosi), almost implying that the style of the later collection is being consciously eschewed.

49 The prominence of G major in the Seventh Book may well recall the *Scherzi Musicali* of 1607, in which G major also dominates. I left the latter Collection out of consideration in the statistics given above regarding the frequency of the *cantus durus* and the major mode, largely because the *Scherzi* fall into a different category from the madrigal books. That G major had the association of »light« music for Monteverdi is clear from *Orfeo* as well (especially »Vi ricorda«). It is this association that carries over into Book Seven, but in the latter collection the G major mode is unmistakably expanded in tonal character. In Book Eight, *Il Ritorno d'Ulisse in Patria* and *L'incoronazione di Poppea* it will be the favored key of the *stile concitato*.

IV. Tonal Design in *Orfeo*

Orfeo is famous for the kind of tonal devices we have described. The dramatic juxtapositions of sharp and flat harmonies, especially in acts two and four – accompanied by shifting continuo instruments to underscore the tonal disparities – have often been described in the literature, but seldom explained either in terms of the tonal language of the time or the overall structure and dramatic intent of the opera. *Orfeo* also features much juxtaposition of G major and minor, especially in the symmetrical choruses of the nymphs and shepherds in the first act, and also in the final G minor duet of Apollo and Orfeo, which is followed by G major chorus. It is clear at these points and elsewhere in the drama (Act III, for example) that these two keys – which tend to be associated with Orfeo personally in that practically all his principal solos are set in one or the other key – are not polarized as happy and sad.⁵⁰ A degree of those qualities is present, but to a very slight extent that confirms rather than denying what I have just said. On the other hand modulations involving flat/sharp juxtapositions that do not feature major/minor shift are central to the drama.

Monteverdi sets up the idea of flat/sharp shift in the prologue, each verse of which features a prominent B flat/natural shift at the end, usually expressing an antithesis in the text and making a shift from D minor to A minor. The B flat always appears in a G minor harmony and the B natural as the E major dominant of the final cadence to A (for the last verse, where the text speaks of interruption, the music pauses on the E major chord itself). In modern terms the subdominant of d and the dominant of a are juxtaposed; in terms of the hexachordal framework the g/E harmonies represent the flattest region of the one-flat hexachord and the sharpest of the natural. The cadence degrees of the ritornello symbolizing music – a, F and d (the *mezzana*, *indifferente* and *principiante* degrees of the *cantus durus* d mode – return the tonal perspective to d.

Exemple Ten: *Orfeo*. Second strophe of *La Musica* from the prologue, followed by ritornello

50 Orfeo's principal solos and their keys are the following: »Rosa del ciel«: g-d; »Ecco pur«: g; »Vi ricorda«: G; »Tu se' morta«: g-d; »Possente Spirto«:g; »Qual onor«:G. The long monologue that occupies much of Act Five can be considered to be in G minor, since it begins with nine measures of sustained g harmony and contains three *cantus mollis* sections that end in G minor. But the point of this solo is shift back and forth between *cantus mollis* and *cantus durus* (the final section ending set in G major). As a result of the *mollis/durus* association behind the shifting keys and key signatures of this solo the G major passages have a different association from »Vi ricorda« and »Qual onor«, although on a deeper level of text interpretation they might be considered to be related (that is, »Vi ricorda« and »Qual onor«, which are expressions of Orfeo's happiness and triumph contain, because of their »light« styles, the seeds of Orfeo's tragedy: his failure to take a sufficiently »serious« view of life via self-understanding).

o.gni tur.ba . to co . re et hor di no.bi . l'i . ra et hor d'a.

.mo.re pos . . . s'in . fiammar le più ge . la . te men . ti.

Ritornello

(Allegro)
f

This form of antithesis is then carried forward in the solo of the shepherd who begins the first act. Set in ABA form, this piece modulates from d to a and back to d in a manner that Monteverdi takes pains to express in terms of the antithesis of *mollis* and *durus* qualities. The A section refers to Orfeo's present pleasure and the B section to his past torments. Characteristic expression in the former section are »lieto e fortunato«, »amorosi affanni«, »soavi accento« and »concento« and in the latter »pietosa«, »sdegnosa«, »sospirato e pianto«. The A section features prominent melodic descent through the tone B flat, while the latter accends primarily, giving prominence to B natural (on »sdegnosa«, for example) and featuring many dissonances. The point of shift between the two sections involves a shift from D minor to D major over the same bass tone.⁵¹

51 Malipiero's edition (Vol. XI) carries the D major harmony forward to the ending of the first section; but this is not justified from the print, which has no basso continuo figures at that point,

Having introduced the idea of B flat/natural shift as a device of *mollis/durus* affective polarity in the D minor modal sphere, Monteverdi unfolds the well-known symmetrical array of choruses and dances of the nymphs and shepherds, which utilize several shifts from G minor to G major, the first and last chorus of the substructure, »Vieni Imeneo«, shifting its *cantus* within the movement. Interestingly, Monteverdi introduces the G major harmony (via the *Tierce de Picardie* effect) before the shift to the *cantus durus* and brings in a B flat harmony immediately *after* the shift. He is expressing a negative proposition once again: the prayer of the chorus is for Hymen to come and drive out the horrors and shadows of grief. But, as these movements illustrate, G minor and major are not polarized in *Orfeo*; together they belong to the general mood of rejoicing, as they do in the *Scherzi musicali* of the same year.⁵²

The principle of flat/sharp antithesis just outlined continues throughout the opera in literally countless detasils, the E major/G minor juxtapositions of the heaviest crises in the second and fourth acts serving as the most extreme cases (*relationes non-harmonicae*), such as the disparity between the messenger's announcing Euridice's death and Orfeo's reaction, or the narrative of the snake bite and the pity of Euridice's companions. In Act Four, when Euridice is lost for the second time Monteverdi expresses this form of antithesis in her words »Ahi vista troppo dolce, e troppo amara«, utilizing the *quadro* sign instead of the normal sharp sign to mark the semitone shift from E flat to E natural in the bass line beneath her words. (In addition to the madrigal discussed above, Marco da Gagliano utilizes the same device at the sharp »extreme« of his *La Dafne*, the climax of the work, where Apollo forms the laurel wreath from the tree into which Dafne is metamorphosed.⁵³)

whereas the vocal line has f'♯ only at the beginning of the second section. Monteverdi separates the bass tone d into two whole notes, the first ending the opening section and the second beginning the second section. They are not tied to one another even though the second d is tied to a string of six d's that follow.

- 52 The *Scherzi musicali*, as mentioned above (note 49) greatly favors the key of G (twelve of eighteen settings), with G minor serving as the next most frequently used key and the final *ballo*, which begins and ends in G, featuring several shifts between the *cantus mollis* and the *cantus durus* without any symbolic attachments such as I have described in the madrigals of the Fifth and Sixth Books.
- 53 Gagliano's work was heard in 1608, the year of *Arianna*, the *Ballo dell'Ingrate* and the second performance of *Orfeo*. Gagliano published it in the same year (Florence 1608) with an extended preface that summarizes at the outset the history of the earliest opera performances, culminating in a well-known testimony to Monteverdi's *Arianna*. Gagliano then devotes the remainder of his preface to comments (often detailed) on the staging of his own work. He gives special attention to the line »Faran ghirlanda le tue fronde e rami«, which has such symbolic importance in connection with the laurel wreath. This is the line that shifts into the sharp hexachord via the *quadro* sign, which we must interpret also as a symbolic device. An English translation of Gagliano's preface appears in CAROL MACCLINTOCK, *Readings in the History of Music in Performance* (Bloomington: Indiana University Press, 1979), pp. 187-194.

Example 11: a) Monteverdi, *Orfeo*: Example of *quadro* sign in Act Four

8 Ahi vi-sta trop-po dol - ce e trop-po a - ma - ra

*

b) Marco da Gagliano, *La Dafne*: Examples of *quadro* sign in Apollo's solo

8 L'au - ro il tuo bel ve - lo Non sia - pe - rò

*

8 ch'io non l'ho-no-ri, ed a - mi Ma sem-pre al mio crin d'o-ro fa-ran ghir-

*

8 lan- da le tue fron-de e ra - mi Ma deh, s'in que-sta fron-de o-di il mio

*

8 pian -to sen-ti la no-bil ce-tra quai do-ni a te dal ciel can-tand' im- pe - tra.

NB

*

The final act is almost entirely a sixteen-fold alternation of *cantus mollis* and *cantus durus*, throughout Orfeo's solo and his dialogue with Apollo. In the solo every single such shift is derived from *mollis* and *durus* aspects of the text—for the most part centering around Orfeo's praise of Euridice (*cantus mollis*) and his rejection of other women and womanhood in general because of their hardness (*cantus durus*). This idea is carried over into the *Ballo dell'Ingrate*—Dance of the hard-hearted women—of the following year, which is remarkably close to *Orfeo* in this and many other aspects of tonal design.) When Apollo enters Orfeo sings exclusively in the *cantus durus* and Apollo in the *cantus mollis* until Apollo finally turns Orfeo away from his rigid state of mind; then they unite in the G minor duet »Salam«, ascending to heaven while the chorus sings »Vanne Orfeo felice a pieno« in G major. Before these last two movements (the duet and chorus) the sixteen shifts between *cantus mollis* and *cantus durus* were not centered in the keys of G minor and major, but in the idea of flat/sharp antithesis. The last two movements return to the stability of the major and minor modes, in a gesture with no sense of antithesis, similar to the choruses of nymphs and shepherds in the first act.

I mentioned at the outset of this paper that Monteverdi's tonal practice was centered in the two-system framework of the *cantus mollis* and *durus* together, a relatively closed system whose relationship to the principle modes of the time was expressed most clearly, perhaps, by Kircher. As I said, *Orfeo* utilizes exactly the modes set forth by Kircher in his diagram.⁵⁴ And Monteverdi interprets the dramatic structure of *Orfeo* in terms of the relationships that are latent in that system. Apart from the juxtaposition of G minor and major and the flat/sharp tonal antithesis that arises from the polarizing of the two-flat and sharp hexachordal regions, the D minor mode (common to both *cantus*) serves as the symbol of the allegorical figure of music, probably because of its perception as the »first mode«, but also because it embodies flat and natural shift more than any other single mode; it therefore serves as a pivot between the underworld and the world of daylight, bridging the A minor ending of Act Two and the G major beginning of Act Three (since the work was almost certainly performed without breaks between the acts) and the A minor ending of Act Four with the G minor beginning of Act Five.⁵⁵ The acts of greatest dramatic crisis, Two and Four, both end in the »durus« key of A minor, which is the sharpest key used as a final in the Monteverdi madrigals (measured in terms of the circle of fifths). The first halves of these two acts both begin with solos of Orfeo in G minor, then move through a similar succession of keys (including the rarely used *cantus mollis* C major) and culminate in a strophic solo of Orfeo in G major that expresses his carefree, unconcerned joy (»Vi ricorda i boschi ombrosi«

54 That is, the keys that appear as finals in *Orfeo* are B flat, g, F, d, C, a, G and e. KIRCHER's »Mensa Tonographica« (Part II, 51) uses the identical finals, but the key with e as final is not E minor but »hypophrygian«. Later, however, when Kircher gives examples of cadences to all the keys (II/64), he gives E minor as the »hypophrygian« mode. And the manner in which he presents it indicates clearly its »special« character within the system. See my further comment on this passage in note 56, below.

55 On the performance of *Orfeo* without breaks between the acts see JOHN WHENHAM, »Five acts: one action«, in: Claudio Monteverdi: *Orfeo*, ed. JOHN WHENHAM (Cambridge: Cambridge University Press, 1986), pp. 42-47.

and »Qual honor«). The shift that takes place in the second half of Acts Two and Four has, therefore, much of the aspect of the G minor, G major, A minor emphases of the madrigals considered from Books Five and Six. The underworld acts, three and four, both end with ABA groupings of Sinfonia/Chorus/Sinfonia in G major and A minor and thereby give the tonal shift that marks the dividing point within acts two and four a further degree of structural emphasis. The first of these expresses mankind's control of nature at the end of the act in which Orfeo gains his underworld victory and the second Orfeo's failing to attain the highest virtue, victory over himself.

One further aspect of the tonal structure of Orfeo arises from the spectrum of modes whose finals form the fifth circle B flat, F, C, G (major keys) and g, d, a, and e (minor keys). The keys of B flat and E minor are polarized in the opera as the keys of hope (Speranza) and Orfeo's final loss of hope. Speranza sings in B flat; her solo near the beginning of Act Three is the only movement in that key. In the middle of the solo the famous words from Dante, »Abandon all hope ye who enter here«, are transposed to A minor to create a *mollis/durus* juxtaposition of hope and its opposite. Likewise, when Speranza disappears, after cadencing in B flat, Orfeo turns immediately to an A minor solo, expressing his feelings of hopelessness. In fact, there are six places in the opera in which juxtapositions of this kind appear in conjunction with hope and loss of hope. The most outstanding is the point in Act Four where a spirit of the underworld tells Orfeo that Euridice my never more hope to see the light nor Orfeo hope to attain anything further from the underworld. This solo is the only instance of an E minor movement in the opera, just as Speranza's is the only appearance of B flat. It follows Euridice's »ahi vista troppo dolce e troppo amara«, mentioned above, and it precedes the opera's most disorienting solo of Orfeo's in terms of sharp/flat antithesis, the final dramatic event before the moralizing finale. The E minor, here as in the madrigals discussed above, and as in the climax of Marco Da Gagliano's *Dafne*, is the tonal »estrema«, the point at which the sharpest chord of the sharp hexachord, B major, enters as dominant of a secure cadence.⁵⁶ It is the limit of the world defined by the two-system

56 In the passage from KIRCHER's 'Musurgia' (p. 64) referred to in note 54 Kircher provides, as I said, an E minor cadence in place of the »hypophrygian«, adding the words »In hoc tono non valet clausula« (In this mode the cadence is not strong [or complete or final]). The passage he supplies makes a perfect cadence to E minor via its dominant B major. In the alto voice Kircher indicates the major third, d[#], for two B major chords. In the soprano voice, however, he does not indicate the f[#] but instead places a *quadro* (natural) sign on the fourth (b') line of the staff at the beginning, indicating that the hexachord is transposed so that the f' that appears above the penultimate B major chord will be sharpened. It will undoubtedly seem strange that Kircher does not use the sharp sign (or even the *quadro* sign) on the f" line, or even, as Gagliano does, the *quadro* sign before the notes to be sharpened. The answer to this situation can be found in Part One of the 'Musurgia' where Kircher takes up the subject of modal transposition (see especially pp. 232-233). There he first presents Clareanus' twelve modes in the *cantus durus* (Duodecim Toni perfecti generi diatonici & naturalis), then in the *cantus mollis* (Duodecim Toni perfecti generis chromatici quasi naturalis, & transpositi sunt per quartam). He then presents them at two further levels of transposition: two sharps (Duodecim Toni perfecti generis chromatici accidentalis duri) and two flats (Duodecim Toni perfecti generis chromatici accidentalis mollis). The two-flat transposition is notated as we would expect: with the two-flat signature at the beginning of each mode. But the two-sharp transposition has no signature. Instead Kircher places a sharp before every single tone of the traditional scheme of octaves divided by fifth and fourths, creating a very

tonal framework. And if that world is not exactly *closed* – that is, it is exceeded from time to time by transposition and special harmonic situations – it is at least complete in itself for by far the greater part of Monteverdi's *oeuvre*.

In the final analysis *Orfeo*, composed at a point of crisis in Monteverdi's life, and first performed in the year of his famous detailed response to Artusi, can be interpreted metaphorically to represent the musical artist whose technical control (virtuosity) as exhibited in »Possente spirito«, is not matched by the »Virtu« of self knowledge (the message of the Act IV finale). *Orfeo's* conception of the *cantus durus*, for example, is either in terms of the light dance style of »Vi ricorda« or of the inimical, irreconcilable torments of the second and fourth acts and the fifth act solo. The resolution of *Orfeo's* dilemma by means of Apollo's descent to rescue him from the throes of the *cantus durus*, and the final G minor/major juxtaposition of the duet with Apollo and chorus »Vieni *Orfeo felice a pieno*« complete a structure whose inner correspondences and symmetrical aspects represent an order that is imposed from outside, a structure »ex machina« so to speak. The work thus provides an illustration of the dialectic, mentioned at the outset of this study, between tonal impulse and contradiction on the one hand and concept on the other. The organization and employment of the keys or modes of the time is, in fact, very detailed, allowing us to interpret the musico-allegorical aspect of the work at many levels according to the principles outlined above. Throughout his later work Monteverdi reinterprets the tonal relationships within the two-system framework of the *cantus durus* and *cantus mollis* without, however, taking major steps outside its boundaries.⁵⁷ Understanding of its consistency is a vital aspect of his music.

confusing situation for the modern musician, since it appears that he is notating »enharmonic« sharp keys such as E sharp Dorian, and the like. Also, the transposition of the modes up a fifth (i.e., to the one-sharp key signature level) is entirely missing from his presentation. In his text Kircher makes the interesting statement that »Falsa igitur est quintarum transpositio in scalam duram« (transposition by the fifth into the *durus* scale [i.e., hexachord] is false), meaning, of course, that the signature does not provide for the perfect fifth above B. In other words, in his example from Book Two Kircher uses the *quadro* sign as a signature in one part only, along with the statement that there is no true cadence in the E »minor« mode, to indicate that since the true scale of the *cantus durus*, is the »scala naturalis« and the »scala dura« is false, use of the latter has a special indication. His placing the *quadro* sign on the b' line rather than the f" line indicates that it is the counterpart to placing a flat on the b' line: that is, it indicates transposition of the scale, for that part only, to the »false« »scala dura«. Along with his irregular notation for the two-sharp transposition in Book One this usage (which was not followed by any composers that I know of) is testimony to the unfamiliarity of sharp transposition and the extreme rarity of sharp key signatures in the first half of the seventeenth century. That Kircher omits the one-sharp signature from his transpositions indicates a different view of the role of »key signatures« from that which has prevailed since the widespread adoption of the circle-of-keys, the observation from which this study began.

57 For example, in *Il Ritorno d'Ulisse in Patria*, Ulysses' triumphs over Iro and Penelope's suitors involves several of the most conspicuous instances of the *stile concitato* (in G) of Monteverdi's entire *oeuvre*. These points may be contrasted with the G major of *Orfeo's* points of triumph (»Vi ricorda« and »Qual onor«).