FORMAL ORGANIZATION IN GROUND-BASS COMPOSITIONS

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This thesis examines formal organization in ground-bass works. While it is true that many or even most works of the ground-bass repertoire are variation sets over a ground, there also exist many ground-bass works that are not in variation form. The primary goal of this thesis is to elucidate the various ways in which such non-variation formal organizations may be achieved. The first chapter of this work discusses the general properties of ground basses and various ways that individual phrases may be placed in relation to the statements of the ground. The second chapter considers phrases groupings, phrase rhythm, and the larger formal organizations that result. The third chapter concludes this study with complete analyses of Purcell's "When I am laid in earth" from *Dido and Aeneas* and Delanade's "Jerusalem, convertere ad dominum Deum tuum" from his setting of the Leçons de ténèbres.

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LIST OF ABBRIVIATIONS

Term	**Abbreviation**
Authentic Cadence	AC
Half Cadence	HC
Imperfect Authentic Cadence	IAC
Measure X	m. X
Measure X, Beat Y	m. X:Y
Perfect Authentic Cadence	PAC
Phrygian Half Cadence	PHC

INTRODUCTION

This thesis will study formal organization in works that use a ground bass. Ground bass, or *basso ostinato*, is defined by the *Harvard Dictionary of Music* as "a pattern of notes, most often a single melodic phrase set in the bass, that is repeated over and over again during the course of a vocal or instrumental composition" (Sisman 2003). While the term has been applied to music of various eras that demonstrate this basic principle—e.g., the thirteenth-century *pes* and the repeating tenor of masses and motets in the fourteenth and fifteenth centuries—this essay will focus on the modern conception that emerged in the seventeenth-century Baroque style.

The genre of ground bass is related to that of theme and variations insofar as both are defined by a repeating structural unit. However, it would be wrong to characterize ground bass as a subgenre of variation form. Even so, definitions of ground bass like that found in *New Grove* as a bass melody "recurring many times in succession, accompanied by continuous variation in the upper parts" (Hudson 2015) demonstrate that ground bass is often incorrectly conflated with continuous variation over a ground. While it is true that many or even most works of the ground-bass repertoire are indeed variation sets over a repetitive bass line, there also exist many ground-bass works that are not in variation form. While this claim—that is, that there exist ground-bass works not in variation form—will be sufficiently substantiated with numerous examples of such works, the primary goal of this thesis is to elucidate the various ways in which such formal organizations may be achieved.

The distinction between variation and non-variation forms in ground-bass compositions has been noted in the literature, albeit somewhat sparsely. A particularly representative example is found in Hugh M. Miller's article *Henry Purcell and the Ground Bass*:

> The essential fact to be kept in mind concerning the non-variation ground forms is that the vocal material does not conform in structural pattern to that of the ostinato bass. This is particularly noticeable in the phraseology, for the vocal phrases are usually longer than those of the ground, and in most instances they do not conclude at the same point except at the end of principal sections of the composition. Furthermore, there is usually little similarity between the melodic style of the bass and that of the vocal melody, the former being of a solid, plodding nature, the latter in a more florid style. This being the case, it is obvious enough that there is no attempt to vary the superimposed material with each reiterated statement of the ground; hence these compositions are not variation forms in any sense of the word. (Miller 1948, 342)

Although Miller does not demonstrate these observations in his article, the present analytical survey of the ground-bass literature will show him to be correct. It is noteworthy that he writes specifically about vocal composition. The general distinction between continuous-variation instrumental and non-variation vocal music is also addressed in the *Harvard Dictionary of Music*:

> In instrumental [ground-bass] pieces, the phrases of the upper lines usually coincide with the structure of the ground bass, and the figuration, texture, or melody changes with each repetition of the bass, so that continuous variations result…. In vocal pieces, however, the ground bass tends not to delimit individual variations, but rather acts as the underlying support for a freely and often irregularly phrased setting of the text in the upper line. The vocal melody, expressly designed not to match the phrase structure of the ground, thus creates an affective continuity whose subtle conflict with the bass may build to a moving climax…. (Sisman 2003)

Therefore, while it is not the express purpose of this thesis to study vocal music in particular, both scholarly and musical literature seem to indicate that non-variation forms are primarily a vocal phenomenon with regard to the Baroque ground.

Analysis of Form

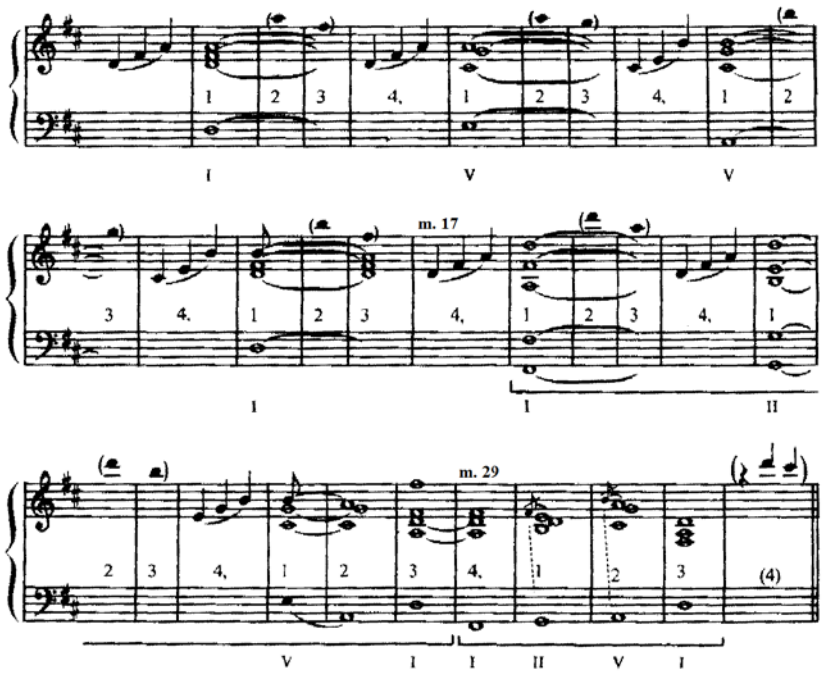
The primary object of study in this thesis is the form of ground-bass works, in particular those which are not simply theme and variations. As such, its methodology must employ a theory of form. Following Felix Salzer (1952, 223–4) and William Rothstein (1989, 104), this thesis will distinguish between structure, form, and design. *Structure*, unless otherwise qualified, will

refer to Schenkerian structure. *Form* is, according to Salzer, "the architectonic organization of the structure" (Salzer 1952, 223), or as put by Rothstein, "[f]orm, in its larger aspect, is the organization and division of that structure into definite sections, and the relation of those sections to each other" (Rothstein 1989, 104). Furthermore, according to Rothstein, form is "a phenomenon of phrase structure and phrase rhythm" (Rothstein 1989, 102). Lastly, *design* is "the organization of the composition's motivic, thematic and rhythmic material through which the functions of form and structure are made clear" (Salzer 1952, 224). Before further expounding on what form is, it is important to first define phrase and the related concepts of phrase structure and phrase rhythm.

The Musical Phrase

Although Rothstein does not provide a clear-cut definition of phrase, he does state that "a phrase should be understood as, among other things, a directed motion in time from one tonal entity to another; these entities may be harmonies, melodic tones (in any voice or voices), or some combination of the two" (Ibid., 5). Furthermore, a phrase requires some degree of harmonic and melodic completeness (Ibid, 9). Rothstein uses Johann Strauss, Jr.'s "Blue Danube" Waltz to illustrate this point, and his foreground reduction of the first 32 measures of the work has been reproduced in Example 0.1.

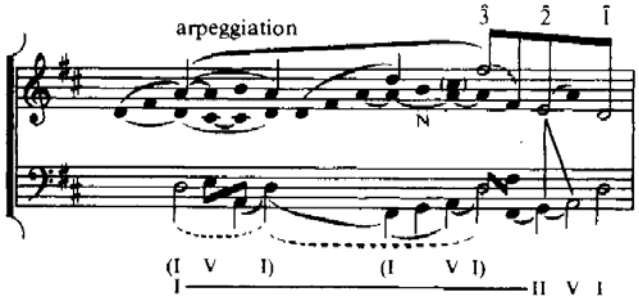
Although there are clear and consistent four-measure segments (mm. 1–4, 5–8, etc.), these segments cannot be phrases because there is no tonal motion whatsoever within them. Rather, Rothstein considers these smaller units *subphrases*. He identifies three complete harmonic motions in the excerpt. The first occurs in mm. 1–16 (I–V–I), the second in mm. 17–28 (I–II–V–I), and the final in mm. 29–32 (I–II–V–I). He denies that mm. 1–16 is a phrase because it is "ultimately static, ending where [it] began, with only minimal motion along the way" (Ibid.,



Example 0.1. Rothstein's reduction (foreground) of Johann Strauss, Jr.'s "Blue Danube" Waltz, No. 1, mm. 1–33 (Rothstein 1989, 6: Example 1.2)

9). Furthermore, he contends that there is no complete tonal motion in mm. 17–28 (marked by the first bracket under the score). The most important reason he gives for this is that the completion of harmonic motion in m. 28 "occurs at the same time as the melodic climax of the entire example, the high F♯. As a climax, this is by definition a point of maximum tension. Melodic tension (the high note) thus coincides with harmonic resolution" (Ibid., 7). Finally, mm. 29–32 provides what the previous two lacked, a complete melodic motion. Rothstein concludes that "the complete tonal motion therefore comprises the *entire* excerpt" (Ibid., 9) and summarizes this motion in the following Schenkerian notation in Example 0.2.

The phrase therefore consists of the complete harmonic motion I–II–V–I, shown at the deepest level of harmonic analysis in Example 0.2 together with the complete melodic motion $\hat{3}$–$\hat{2}$–$\hat{1}$, both coming to completion in m. 32 for the first cadence of the work. A *cadence* will be understood in this way as the completion of a harmonic-melodic motion (e.g., the arrival at the



Example 0.2. Rothstein's Voice-leading reduction of "Blue Danube" Waltz, mm. 1–33 (Rothstein 1989, 8: Example 1.4)

final 1̂/I in Example 0.2), and a *phrase* will be understood as the entirety of a complete harmonic-melodic motion (e.g., Example 0.2).

Phrase Structure, Phrase Rhythm, and Musical Form

Rothstein clarifies the relationship between phrase, phrase structure, and phrase rhythm when he states that the phrase is "first of all a unit of tonal motion" and "simultaneously a rhythmic unit" (Ibid., 27). *Phrase structure* is "the coherence of musical passages on the basis of their total musical content—melodic, harmonic, and rhythmic" (Ibid., 13) and deals with the phrase as a unit of tonal motion. Phrases are hierarchical in the sense that smaller phrases (which correspond to foreground motions) can be contained in larger ones (which correspond to middleground motions). *Phrase Rhythm* on the other hand relates to the phrase as a rhythmic unit—i.e., the relationship between phrases placed in time.

Form—as "a phenomenon of phrase structure and phrase rhythm"—is a product of the interaction of phrases in both their tonal and rhythmic dimensions. Since the fundamental unit of both phrase structure and phrase rhythm is the phrase, the phrase is in turn a fundamental unit of form.[1] Since the phrase is essentially a tonal motion, I will use Schenkerian methodology to

[1] Although it should be noted that, in an analogous sense, an individual phrase may have its own "form" with the subphrase as its fundamental unit. The difference is that, unlike phrases, subphrases are not complete in themselves.

show these tonal motions and elucidate a work's phrase structure and form; as put by Rothstein, "[p]hrase structure can be determined with the help of careful melodic and harmonic analysis. The best available means for this is the Schenkerian method, because that approach reveals underlying tonal motions most precisely" (Ibid., 13).

Because the phrase is the basic unit of form, phrasal analysis will be integral to this study. In particular, this thesis will examine 1) how the voices above the ground form individual phrases in cooperation with the statements of the ground; 2) how these phrases relate to and are grouped with one another (phrase structure), and how the corresponding phrase structure relates to the ground statements; and 3) how the phrase structure gives rise to a variety of forms, including theme and variation, binary, ternary, and through composed forms.[2]

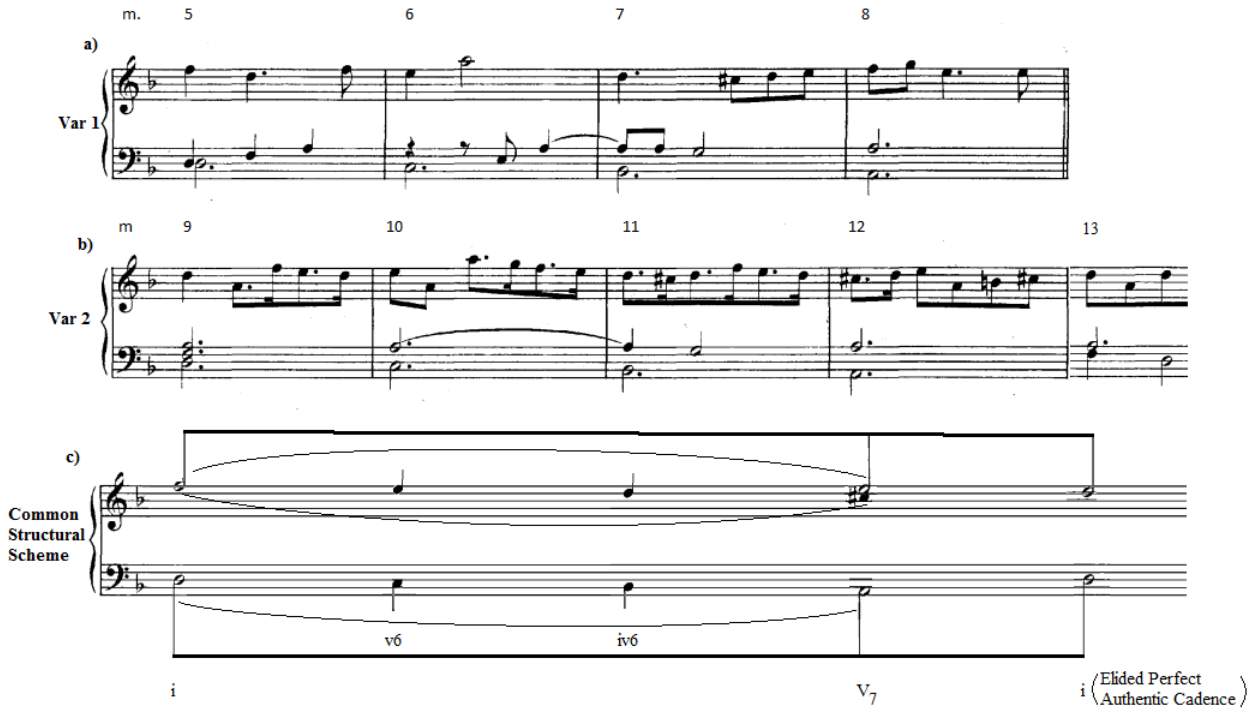
Variation vs. Non-Variation Forms

Before analyzing ground-bass works to demonstrate how non-variation forms arise over ground statements, it is necessary to define a criterion for considering one passage a variation of another. In this thesis, one phrase will be considered a variation of another if the middleground structure of the two are essentially the same.[3] Consider the two phrases from Christian Friedrich Witt's Passacaglia in D minor (BWV Anh.182) provided in Example 0.3, in which variation 1 (0.3a) and variation 2 (0.3b) elaborate the same middleground structure (0.3c).

The phrases in Example 0.3 provide a clear example of a variations over a ground, in this case the descending minor tetrachord. However, it will be demonstrated in the course of this thesis that this is not always the case.

[2] Roman Ivanovitch (2010) discusses a similar problem concerning the contrast between cyclic (recursive) and linear (discursive) elements in the article "Recursive/Discursive: Variation and Sonata in the Andante of Mozart's String Quartet in F, K. 590."

[3] See Forte and Gilbert (1982).



Example 0.3. Christian Witt: Passacaglia in D minor, mm. 5–13 (a and b) and reduction (c)

Chapter Outline

In Chapter 1, I will examine the general properties of ground basses. Following this, I will consider the various ways that individual phrases may be placed in relation to the statements of the ground. In Chapter 2, I will consider phrase groupings, phrase rhythm, and the larger formal organizations that result. In Chapter 3, I will provide two complete analyses of selected ground bass works.

CHAPTER 1

THE GROUND BASS

In order to understand how non-variation forms are possible in ground bass works, it is important to first begin with a study of the ground bass itself. In the first part of this chapter, I will discuss possible ways to analyze and categorize ground basses. In the second part, I will examine ways in which upper voices are composed over individual ground statements to form phrases.

Analysis of Grounds

Basic Properties

In this thesis, a distinction will be made between a *ground* and its *statements*. While a *ground* is a monophonic phrase that is to be repeated successively throughout a composition,[4] a *ground statement* is an actual occurrence of that ground in a composition; the former is abstracted from the work, while the latter is a concrete and integral part of it. The definition given above highlights the three essential properties of any ground bass: 1) it is monophonic, consisting of only a single melodic line; 2) it has the potential to be repeated successively; and 3) it is, when taken in isolation, a phrase.

While the first and second of these properties are self-evident, the third—that a ground by itself must be a phrase—may be less clear. Since the ground begins the composition, it must begin with $\hat{1}$ or otherwise some embellishment thereof, such as a $\hat{5}$–$\hat{1}$ leap. Furthermore, because a ground must be able to repeat successively and indefinitely in a tonal composition, the end of a

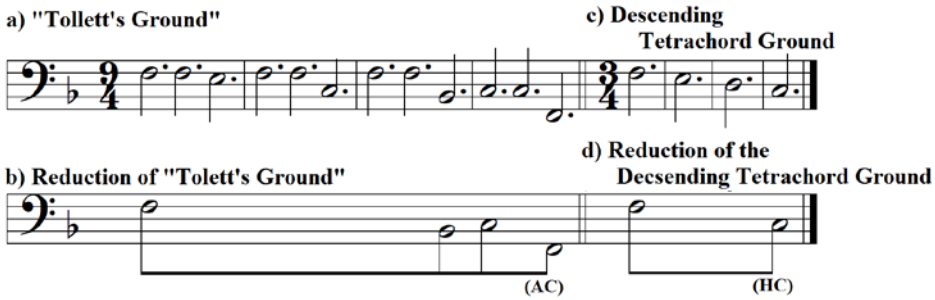
[4] This definition of ground is comparable to that given in the Harvard Dictionary of Music (Sisman 2003, 366), quoted on p. 1 of this work.

ground and its beginning must connect in a tonally coherent way. In order for the ground to connect back to its initial $\hat{1}$, it must end with $\hat{5}$ or $\hat{5}$–$\hat{1}$, and there is no known exception to this rule in the ground bass repertoire. Therefore, a ground by itself is a complete tonal motion and thus a phrase.

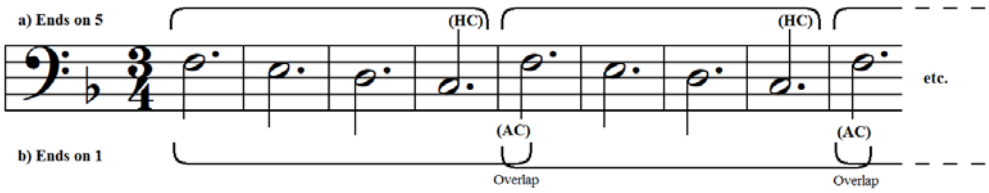
Ground Endings

The final $\hat{5}$ or $\hat{1}$ of a ground is the goal of its tonal motion, its *cadence*. The ground in Example 1.1a is "Tollett's Ground" from John Playford's *The Division Violin* (1684). As indicated in Example 1.1b, it is a complete tonal unit that ends with $\hat{5}$–$\hat{1}$ and by itself seems to imply an AC. The ground in Example 1.1c is the descending tetrachord. As written in Example 1.1c, the ground ends on $\hat{5}$ and implies a HC (1.1d); however, the interpretation of 1.1c provided in 1.1d is not the only way to interpret the descending tetrachord ground, as I will discuss below. In theory, grounds themselves may be divided into those that end on $\hat{5}$ and those that end on $\hat{1}$, as in Example 1.1. However, as I will demonstrate presently, this distinction is not always obvious or even useful. Reconsider the descending tetrachord (Example 1.2).

Example 1.2 shows two possible groupings of repeating statements of the descending tetrachord ground: the top brackets indicate groupings that end on $\hat{5}$ (Example 1.2a), while the bottom brackets indicate groupings that end on $\hat{1}$ (1.2b). In the latter case, there is an overlap



Example 1.1. "Tollett's Ground," the descending tetrachord ground, and their reductions



Example 1.2. Two possible segmentations of the descending tetrachord ground

between the end of one ground statement and the beginning of the next. There are no criteria to decide between these two grouping structures, and it is therefore impossible to say whether the ground ends on $\hat{5}$ or $\hat{1}$ without further context.[5]

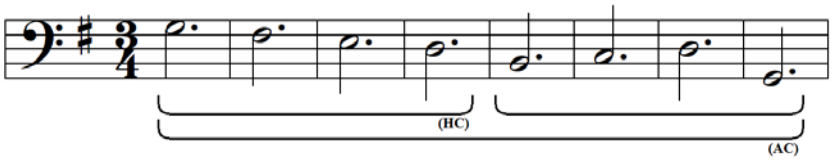
I will call this problem *ambiguity*, the difficulty in determining whether a ground ends on $\hat{5}$ or $\hat{1}$, without context. The descending tetrachord in Example 1.2 is a clear example of an *ambiguous* ground. On the other hand, the "Tollett's Ground" in Example 1.1a is *unambiguous* because the $\hat{1}$ on m. 4:3 is clearly the goal of the ground, emphasized by the $\hat{4}$–$\hat{5}$–$\hat{1}$ cadential bass line in mm. 3–4 and the metric placement of the final $\hat{1}$ on beat 3.

Simple and Compound Grounds

The grounds in Examples 0.3, 1.1, and 1.2 all imply only a single phrase, and will be called *simple* grounds for this reason. However, a ground may imply more than one phrase, as in the ground from Handel's Chaconne in G major in Example 1.3. The eight-measure ground consists of a descending tetrachord (mm. 1.4) followed by a $\hat{3}$–$\hat{4}$–$\hat{5}$–$\hat{1}$ cadential bass line (mm. 5–8). A possible interpretation of this ground is as two four-measure phrases with the first ending in a HC in m. 4 and the second in an AC in m. 8. These two four-measure units form a larger

[5] The problem of distinguishing between half cadences and elided authentic cadences in general has been noted by L. Poundie Burstein, "The Half Cadence and Other Such Slippery Events," *Music Theory Spectrum* 36, no. 2 (Fall 2014): 203–227.

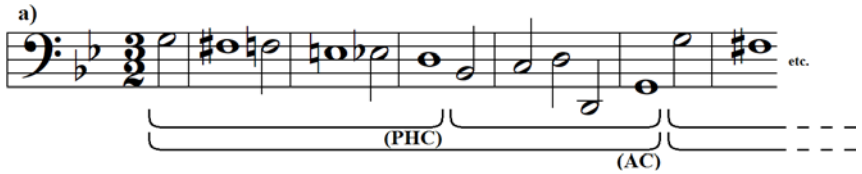
eight-measure phrase ending in an implied AC. Grounds that imply more than one cadential point, such as the one in Example 1.3, are called *compound* grounds.



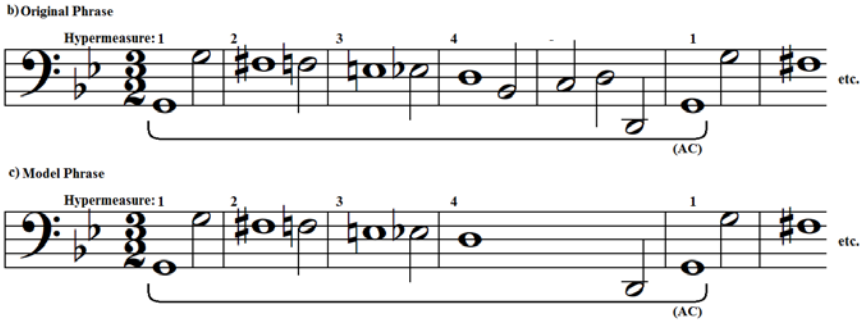
Example 1.3. Ground from Handel's Chaconne in G major (HWV 442)

The ground in "When I am Laid in Earth" from Purcell's *Dido and Aeneas* (Example 1.4) provides an example similar to Example 1.3. The ground begins on beat 3 with $\hat{1}$ (G_3) and ends on $\hat{1}$ an octave lower (G_2) on the downbeat of m. 5. The first three measures of the ground contain the descending chromatic tetrachord and are followed in the next two measures by the typical $\hat{3}$–$\hat{4}$–$\hat{5}$–$\hat{1}$ cadential bass. One possible interpretation (Example 1.4a) of this ground is similar to Example 1.3, with a Phrygian HC (PHC) at the end of the descending tetrachord in m. 3 and an AC at the end of the ground in m. 5. However, while this cadential structure is realized in "When I am laid in earth," an alternate interpretation of the ground is realized elsewhere in the same work (Example 1.4b) in which no half cadence is realized and mm. 4–5 are treated as an elongated fourth hyperbeat; the model phrase for this interpretation is given in Example 1.4c. This reading will be revisited in Chapter 2.

In summary, while every ground has at least one implied cadential point at either the final $\hat{5}$ or $\hat{1}$, compound grounds have the potential for internal cadential points. However, it should be noted that, even though the ground itself may seem to suggest a cadence, the end of a ground statements does not necessitate a cadence. More significant in determining cadences and the



Example 1.4a. Ground from Purcell's *Dido and Aeneas*, "When I am Laid in Earth"

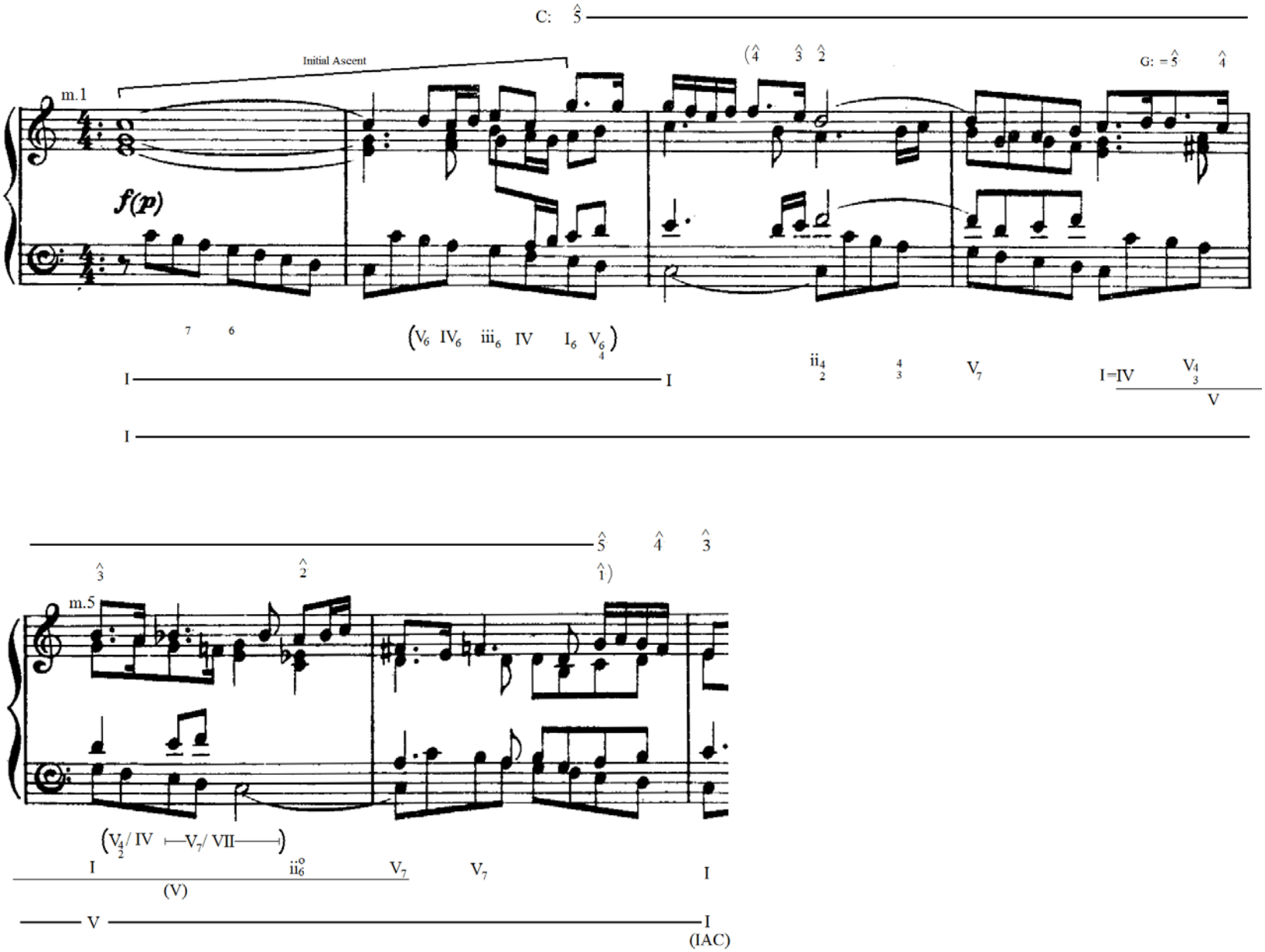


Example 1.4b and c. Alternate interpretation of ground from "When I am Laid in Earth."

phrase structure is the interaction between the upper voices and the ground, as will be seen in the next section.

The Upper Voices

Although a ground may be considered a phrase insofar as it is a complete melodic idea ending with an implied HC on $\hat{5}$ or AC on $\hat{1}$, when considered in the context of a musical passage with freely-composed upper voices, the tonal motion of any particular ground statement is subsumed into the tonal motion formed by the interaction of all parts. While the bass voice does have a strong effect on the overall tonal structure, it does not necessarily dictate that structure. Consider the first phrase of Purcell's *Rejoice in the Lord Alway* [sic] in Example 1.5, which contradicts the phrase structure implied by its ground statements.



Example 1.5. Henry Purcell: *Rejoice in the Lord Alway* [sic], mm. 1–7

The ground in Example 1.5 is two and a half measures in length and consists of two subsequent descending stepwise lines from C_4 to C_3. Considered by itself, the ground ends with $\hat{5}$-$\hat{1}$ (filled in by step) on an implied AC; however, the upper voices of the first phrase (mm. 1–7) contradict this interpretation of the ground. It will be demonstrated that the first cadence occurs in the middle of the third statement in m. 7, while cadences are not realized at the end of the first or second ground statement (mm. 3:1 and 5:3). The first statement of the ground (mm. 1:1–3:2) occurs with an initial ascent in the top voice to $\hat{5}$ in mm. 1–3 followed by a subsidiary descent from that $\hat{5}$ to $\hat{2}$/$ii_{4/2}$ in mm. 3 (indicated with scale degrees in parentheses on score). Although the first statement of the ground ends in m. 3, the melodic line has only just begun with the arrival of $\hat{5}$, and so there is no cadence at that point.

Over the second ground statement (mm. 3:3–6:1), the $ii_{4/2}$ harmony progresses logically to V_7 (m. 4:1), which in turn resolves to I with $\hat{1}$ in the top voice (m. 4:3). Two factors detract from this arrival of the $\hat{1}$/I on m. 4:3 as being heard as a cadence: first, it occurs on the third beat of the measure, a fairly weak position for a cadence; and second, this C-major chord functions as I in relation to what comes before it and as IV in relation to the tonization of G major that follows it, and it is therefore pivotal rather than cadential. The treble C returns to D as $\hat{2}$, which becomes $\hat{5}$ of an extended tonicization of G (mm. 4:3–6:1), and the stepwise line continues downward through $\hat{4}$/$V_{4/3}$ to $\hat{3}$/I of G major on the downbeat of m. 5.

The harmonic activity in m. 5 gives way to semitonal voice leading. In the secondary tonal area of G major, the I on the downbeat of that measure becomes $V_{4/2}$/IV and moves to V_7/VII, but the later chord does not resolve properly. Instead, the V_7/VII resolves via semitonal voice leading to ii^o_6 by properly resolving the seventh B♭ to A and lowering E to E♭. That ii^o_6

proceeds to V_7 of G major, which resolves to V_7 of C major. The arrival of the G on m. 6:4 marks the end of the treble stepwise octave descent that began in m. 3 (indicated by the scale degrees in parentheses). The cadence of the first phrase finally occurs in m. 7 with the three-line descent $\hat{5}$–$\hat{4}$–$\hat{3}$ over V_7–I as an IAC.

This analysis demonstrates that the upper voices of a ground-bass composition can undermine the phrase structure implied by the ground statements. Even so, it should be noted that the phrase structure of many works in the ground-bass literature do conform to the repetitive nature of the ground bass statements, as was seen in the first two phrases of Witt's Passacaglia in D minor (Example 0.3). In summary, while a phrase includes the bass as an essential part of its tonal motion, it is the harmony and counterpoint created by both the bass voice and upper voices that ultimately determine the tonal structure and therefore the phrases and cadences of a ground-bass work.

When a phrase starts with the beginning of a ground statement and likewise ends with the end of the same ground statement, the phrase is said *coincide* with that statement of the ground. Therefore, the first phrase in Example 0.3 coincides with the first ground statement because the phrase begins over the initial D of the first ground statement (m. 5) and ends with the final D of that same statement (m. 9). On the other hand, the phrase in Example 1.5 does *not coincide* with any of the first three statements of the ground.

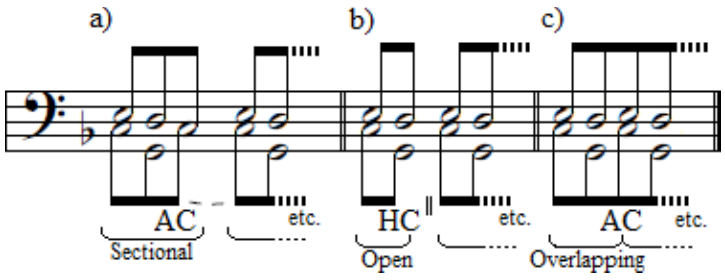
Phrases that Coincide with the Ground

A phrase that coincides with a ground statement always begins with the initial $\hat{1}$ of that ground statement. However, because a ground may end on either $\hat{5}$ or $\hat{1}$, there are three ways such a phrase may end in relation to the ground statement—sectional, open, and overlapping.

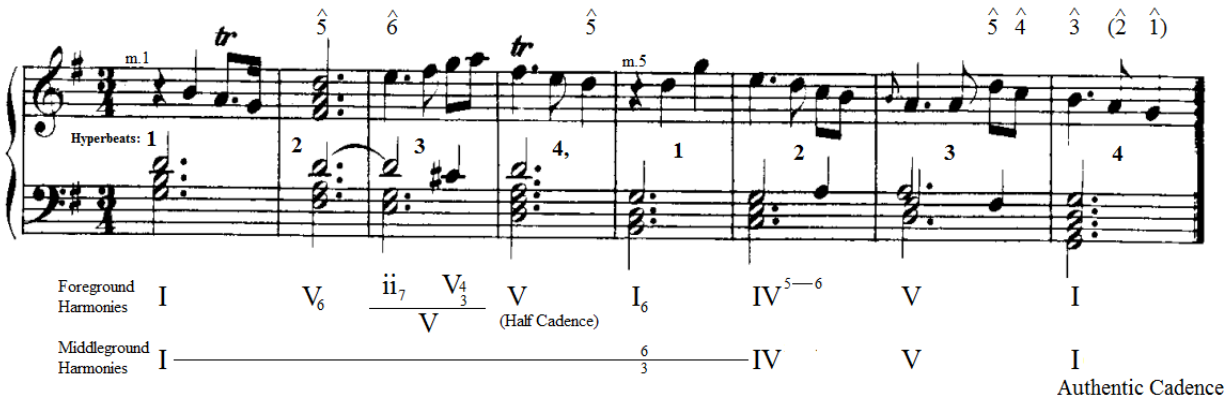
These three phrase types are illustrated in Example 1.6. The open note heads represent the initial $\hat{1}$ and final $\hat{5}$ or $\hat{5}$–$\hat{1}$ of the ground, and each phrase is indicated by a bracket under the staff along with its implied cadence. For example, 1.6a shows a phrase that ends with an AC on the first ground statement's final $\hat{1}$, and likewise 16.b shows a phrase that ends with a HC on the first ground statement's final $\hat{5}$. The difference between 1.6a and c is this: while the first phrase of each ends with an AC over the ground's final $\hat{1}$, the end of the first ground statement in 1.6c overlaps with the beginning of the second, whereas the ground statements in 1.6a are separate.

Sectional

A phrase that coincides with a ground statement is *sectional* (Example 1.6a) when it ends with an implied AC on the ground statement's final $\hat{1}$, and that final $\hat{1}$ is not the same as the initial $\hat{1}$ of the next statement. The phrase over the first ground statement of Handel's Chaconne in G major, HWV 442 (Example 1.7) is an example of a sectional phrase. The work uses a ground with two clear four-bar motions: the descending tetrachord followed by the cadential $\hat{3}$–$\hat{4}$–$\hat{5}$–$\hat{1}$ bass line. By itself, the compound ground indicates a 4+4 hypermetric structure with a HC in m. 4 and an AC in m. 8. Both of these cadences are realized over the first ground statement.



Example 1.6. The three phrases types that coincide with the ground.



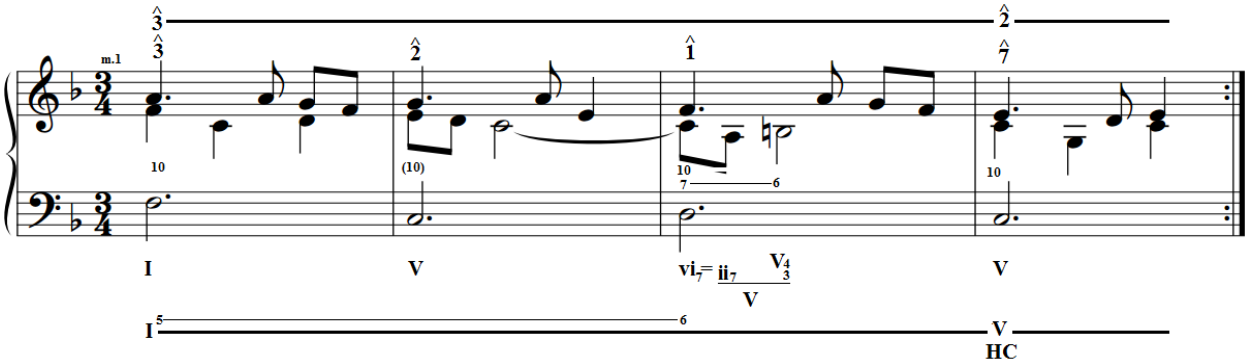
Example 1.7. G. F. Handel: Chaconne in G Major (HWV 442), mm. 1.8

Example 1.7 contains an eight-measure period that consists of a 5-line over a I–I_6–$IV^{5–6}$–V–I bass progression, as indicated by the scale degree above the score and Roman numerals below the score. In the midst of this 5-line is the neighboring motion D–E–D supported by the descending tetrachord in the bass (mm. 1–4), with the octave D's in m. 4 being the goal of both the neighboring motion and the descending tetrachord line. The arrival on the dominant in m. 4 is further supported by the applied dominant in m. 3 and the 4+4 hypermetric structure of the compound ground. However, because the neighboring motion is subsumed by the 5-line and the descending tetrachord ultimately prolongs the tonic harmony to the I_6 in m. 5, the HC in m. 4 is on a shallower structural level than the AC in m. 8. This is indicated by placing the HC with the foreground harmonies and AC with the middleground harmonies, and thus 1–8 is a phrase consisting of two smaller phrase (i.e., a period) whose goal is the AC in m. 8.

Since the phrase in mm. 1–8 ends with the final $\hat{1}$ of the first ground statement, and since that $\hat{1}$ (G_2 in m. 8) is separate from the initial $\hat{1}$ (G_3 in m. 9) of the second ground statement, the phrase is *sectional*. This type of phrase is typical of grounds that end unambiguously on $\hat{1}$, such as the one in Example 1.7. While sectional phrases are most common in variation forms, non-variation forms tend to use open and overlapping structures.

Open

A phrase that coincides with a ground statement is *open* (Example 1.6b) when it ends with an implied HC on the ground statement's final $\hat{5}$. The first phrase in Pachelbel's Chaconne in F Major (Example 1.8) is an example of an open phrase. The work's four-measure simple ground may be understood as a modification of the descending tetrachord with C substituted for E in m. 2.



Example 1.8. Johann Pachelbel: Chaconne in F Major, mm. 1–4

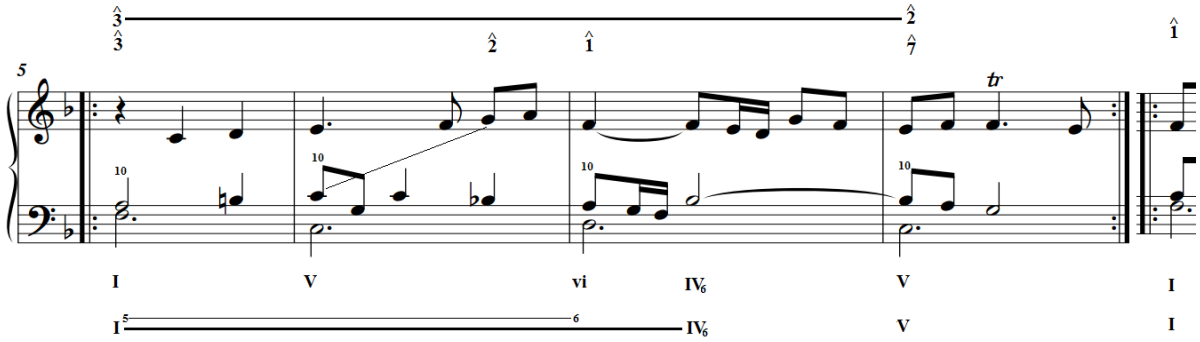
The ground statement in Example 1.8 is counterpointed with the line A–G–F–E ($\hat{3}$–$\hat{2}$–$\hat{1}$–$\hat{7}$) in the top voice, which is shown in Example 1.8 with scale degree numbers above the staff. This creates tenths between the bass and top voices in all but m. 2, indicated by the 10's between staves. However, it should be noted that if the ground were an unmodified descending tetrachord, then the second measure of the ground would be E and that measure would also contain a tenth; for this reason, 10 is put in parentheses in m. 2.

I argued above that the descending tetrachord by itself is ambiguous, since it is impossible to tell without further context whether it ends on $\hat{1}$ or $\hat{5}$. In a context such as this, however, the ground statement unmistakably ends on $\hat{5}$ with the clear tonal motion from $\hat{3}$/I in m. 1 to $\hat{2}$/V in m. 4, which is supported by the applied dominant of the dominant in m. 3. Since the phrase ends with a HC on the ground's $\hat{5}$, it is *open*. However, as will be demonstrated in the

following section, the phrase structure is not always consistent from ground statement to ground statement when dealing with ambiguous grounds.

Overlapping

Finally, a phrase that coincides with a ground statement is *overlapping* (Example 1.6c) when it ends with an implied AC on the ground statement's final $\hat{1}$, and that final $\hat{1}$ overlaps with the $\hat{1}$ of the next ground statement. This kind of phrase occurs in the second phrase Pachelbel's Chaconne in F Major.[6]



Example 1.9. Pachelbel: Chaconne in F major, mm. 5–9.

The second phrase of the work (mm. 5–9) is similar in many ways to the first. Although it is embellished differently, the descending fourth progression A–G–F–E ($\hat{3}$–$\hat{2}$–$\hat{1}$–$\hat{7}$) persists as the main counterpoint to the ground statement (indicated by scale degrees above the staff). A major difference between the two phrases is the way they end: while the first (Example 1.8) ended with a HC in m. 4, the second (Example 1.9) ends with an AC in m. 9. Three factors facilitate this change: 1) unlike in m. 3, in m. 7 there is no applied dominant; 2) whereas the harmony in m. 4 was V, the harmony in m. 8 is V7, which is a less stable harmony than V and demands

[6] See the previous section (p. 17) for the discussion on the ground.

resolution; and 3) the melody in m. 8 is not at rest, especially with the occurrence of the neighbor F.

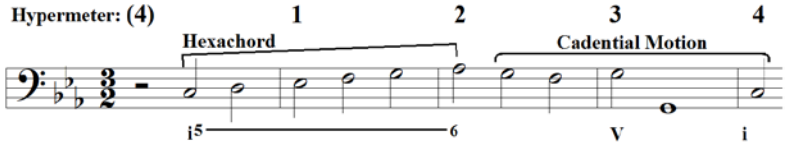
Therefore, the second phrase ends in m. 9 on the initial $\hat{1}$ of the third ground statement and is thus *overlapping*. This demonstrates the potential to reinterpret whether the same ground ends on $\hat{5}$, as in the first phrase (Example 1.8), or $\hat{1}$, as in the second phrase (Example 1.9). This potential for reinterpretation exists especially with ambiguous grounds such as the descending tetrachord or the modification thereof in Examples 1.8 and 1.9.

Phrases that Do Not Coincide with the Ground

Phrases that coincide with ground statements fit into three mutually exclusive categories—sectional, open, and overlapping. There is no such precise categorization for phrases that do not coincide with the statements of a ground. A phrase may fail to coincide with a ground statement in any or all of three ways. First, a phrase may begin in the middle of a ground statement rather than at the beginning. Second, a phrase may likewise end in the middle of a ground statement rather than at the end of the ground statement. Finally, a phrase may fail to cadence at the end of the ground statement as expected and instead continue into the following one. Furthermore, a phrase may exhibit all three of these characteristics by, for example, beginning in the middle of one ground statement, continuing into a second, and cadencing in the middle of that second statement.

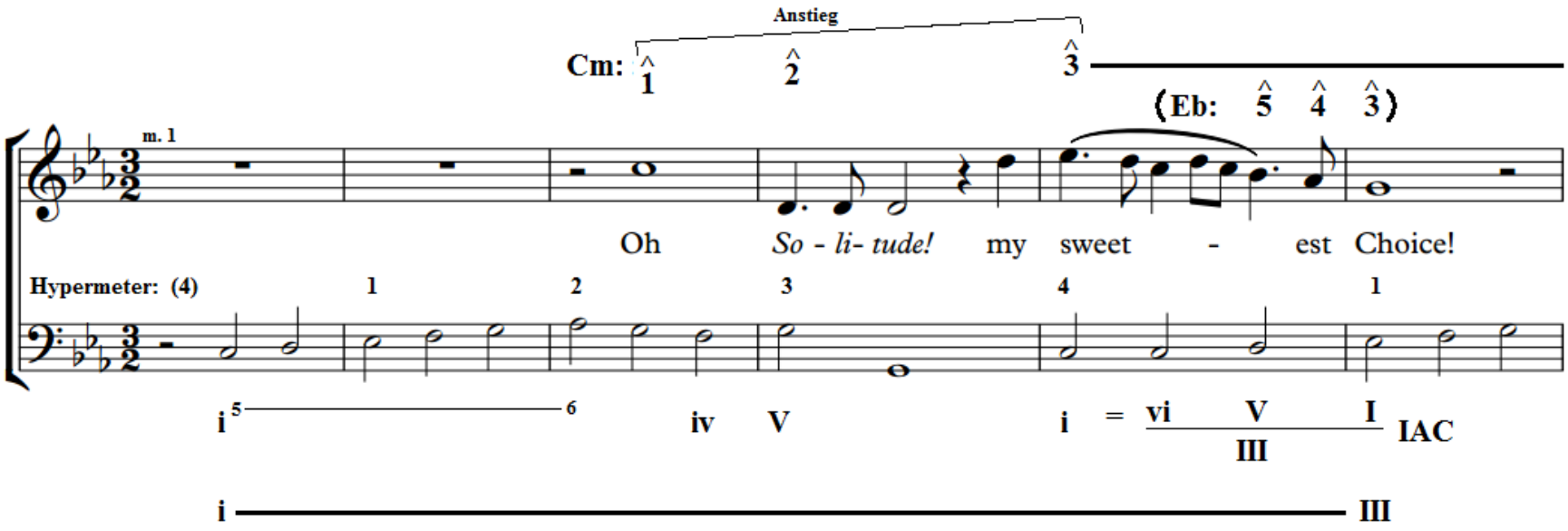
O Solitude by Purcell contains many phrases that do not coincide with the ground statements. As shown in Example 1.10, the work's four-measure ground begins on beat 2 and consists of a rising hexachord in C minor from C to A♭ elided with an A♭–G–F–G motion to the dominant, which in turn resolves to the tonic on the downbeat of m. 5. The ground by itself

seems to end with an AC on 1̂; however, as I will demonstrate, this does not deter Purcell in any way from ending the phrases at other points in the ground. In particular, Purcell takes advantage of the rising stepwise line by often interpreting the downbeats as a local 1̂ and the two notes leading to that downbeat as a local 6̂–7̂. That is, C–D–E♭ may be read as 6̂–7̂–1̂ of E♭ and F–G–A♭ as 6̂–7̂–1̂ of A♭. Therefore, any of the downbeats may be a cadence: an AC over E♭, DC over A♭, HC over G, or AC over C, and each of these cadences is realized at some point during the work.

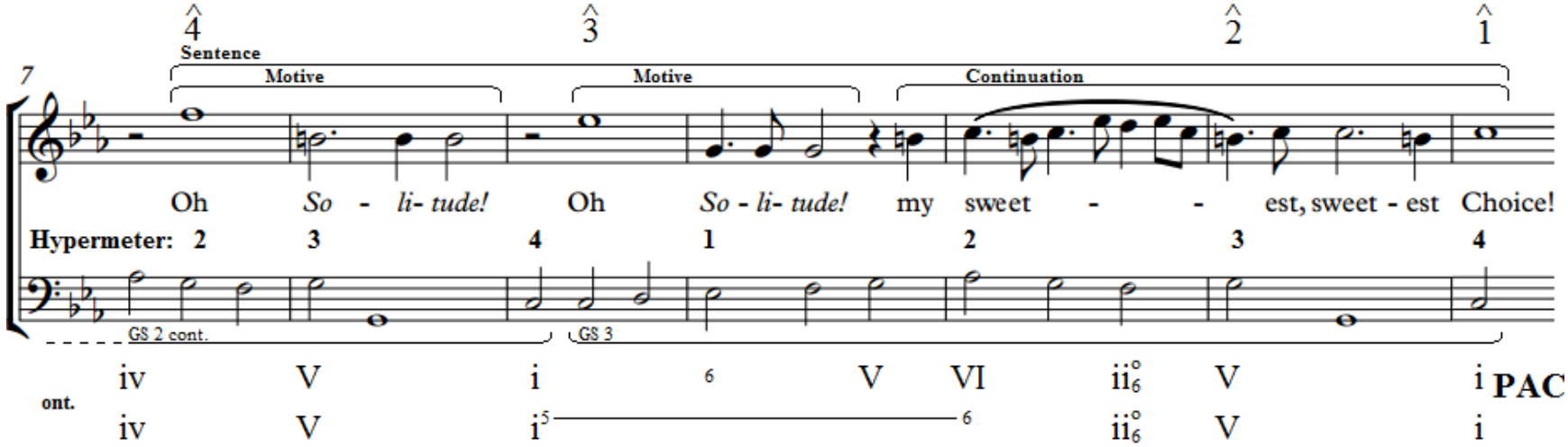


Example 1.10. Ground from Purcell, *O Solitude*.

Consider the first phrase of *O Solitude* in Example 1.11. The singer begins in m. 3 with a downward leap of a seventh from C_5 to D_4. This is an unusual and striking way for the voice to begin the work, but it may be understood as functioning in three ways. First, the D functions as the intermediate tone of a third progression from the C in m. 3 to the E♭ in m. 5, a fact confirmed by the presence of the D_5 at the end of the measure. Second, if the work were to move from C5 in m. 3 to D_5 (instead of D_4), parallel fifths would have occurred. Third, and perhaps most importantly, the D_4 is set apart from the rest of the pitches in register—it is *solitary*, providing text painting for the word *"Solitude!"*. The stepwise ascent is completed in m. 5 with the arrival of the treble E♭ over the bass C. This C in the bass is the end of the first ground statement; however, it would be incorrect to read a cadence at this point. The definite V–I cadential motion in the bass is frustrated by the melodic shape, which reaches its height at the top of the ascending third progression from C to E♭. The E♭ moves down by step back to C before moving to B♭ over



Example 1.11. *O Solitude*, Phrase 1



Example 1.12. *O Solitude*, Phrase 2

the bass D, which in turn continues down through A♭ to G over the bass E♭, which acts as a clear point of melodic and harmonic repose. Therefore, while the expected cadence in m. 5 is left unrealized, an auxiliary IAC in the relative major occurs in the next measure.

The phrase in Example 1.11 demonstrates the potential for a composer to ignore the natural cadence dictated by the ground and create his own. The phrase in Example 1.12, which is the second phrase of *O Solitude*, is similar to the first in this way; that is, it evades the cadence implied by the ground in m. 9. The phrase (mm. 7–13) begins in the middle of the second ground statement (mm. 5–9) and may be described as what many call a sentence structure—a ternary phrase type in which a motive is presented (mm. 7–8), repeated once (mm. 9–10), and followed by a motion toward the cadence (mm. 11.12). In this case, the motive is derived from the descending leap C_5–D_4 in mm. 3–4 (in Example 1.11). The first instance of this motive in Example 1–13 (F_5–B_4 in mm. 7–8) takes place at the end of the second ground statement, and the repetition of the motive ($E♭_5$–G_4 in mm. 9–10) occurs at the beginning of the third ground statement; each of these motives retains the original rhythm, contour, and text, but the descending leap changes from a minor seventh in mm. 3–4, to a diminished fifth in mm. 7–8, and finally to a minor sixth in mm. 9–10. The expected cadence at the end of the second ground statement in m. 9 is disrupted by its placement between these two motives, both of which function as sub-phrases in the present sentence structure. The phrase ends on the final $\hat{1}$ of the third ground statement (m. 13) with a PAC.

Conclusion

By itself, a ground bass may be considered a monophonic phrase that ends on either $\hat{5}$ with an implied HC or $\hat{1}$ with an implied AC. It is often the case that the freely-composed upper

voices support the phrase structure implied by the ground, as in Examples 0.3, 1.5, 1.7, 1.8, and 1.9, and thus these phrases are said to coincide with the ground. However, the upper voices may contradict the phrase structure implied by the ground, as in Examples 1.11 and 1.12, and thus these phrases do not coincide with the ground. This potential for the reinterpretation of the phrase structure that is implied by the ground is perhaps the most important factor in the study of ground bass works. While this chapter has demonstrated this potential with single phrases, the following chapter will address the organization of such phrases into larger formal units such as periods and even entire sections.

CHAPTER 2

PHRASE STRUCTURE

This thesis takes *form* to be "the organization and division of [a work's] structure into definite sections, and the relation of those sections to each other," and furthermore, as a product of phrase structure and phrase rhythm (Rothstein 1989, 104).[7] A repeating melodic figure such as a ground bass by itself would indicate a repetitive phrase structure and a consistent phrase rhythm, both of which are two key elements of variation form. However, as was shown in Chapter 1, the addition of upper voices may alter the meaning of the ground in important ways (e.g., whether it ends on $\hat{5}$ or $\hat{1}$), or the upper voices themselves may have different linear structures; it is the way in which the upper voices are composed in relation to the repetitious statements of the ground that ultimately determine the phrase structure—and thus the form—of a ground-bass composition.

In this chapter, I will examine how various kinds of phrase structures arise from the interaction of multiple phrases with the repetitious statements of the ground. These phrase structures fall into two categories: variation structures and period structures. In variation structures, each phrase coincides with the ground statements and composes out the same middleground structure. In period structures, the tonal motion of the phrases together form a larger tonal motion—a period. In general, I will proceed from phrase structures that coincide the most with the ground to those which coincide the least.[8]

[7] See Introduction, "Analysis of Form" (pp. 2–7) for a more detailed discussion of form.
[8] See Chapter 1, "Musical Phrases" (13ff.).

Variations on a Ground

Although this thesis is primarily concerned with non-variation phrase structures and forms, a brief study of variation phrase structures in ground bass works will be useful for the sake of comparison. In the historically popular treatment of the ground as a set of variations, each phrase usually corresponds to one or rarely two statements of the ground. It is important to note that just as not every ground is a theme and variations, not every theme and variations uses a ground bass. For a variation set to also be considered a ground, it is essential that the bass line be preserved throughout the variations; however, elaborations of the ground are both acceptable and common. I will examine two kinds of variation structures: sectional and continuous.

Sectional Variations on a Ground

Sectional variations occur when each ground statement is interpreted as sectional—that is, as ending on its final $\hat{1}$ that is distinct from the next statement's initial $\hat{1}$—and each phrase is a variation on some basic structure. John Playford's "Divisions on 'Tollett's Ground'" from his *The Division Violin* (1688) provides an example of sectional variations. The work belongs to the seventeenth century genre known as *divisions on a ground*, which consists of variations over a fixed ground bass. The term *division* derives from the division viol, a type of viol named for the frets on its fingerboard. In his 1665 treatise *The Division Viol*, Christopher Sympson writes about a technique he calls "breaking the ground":[9]

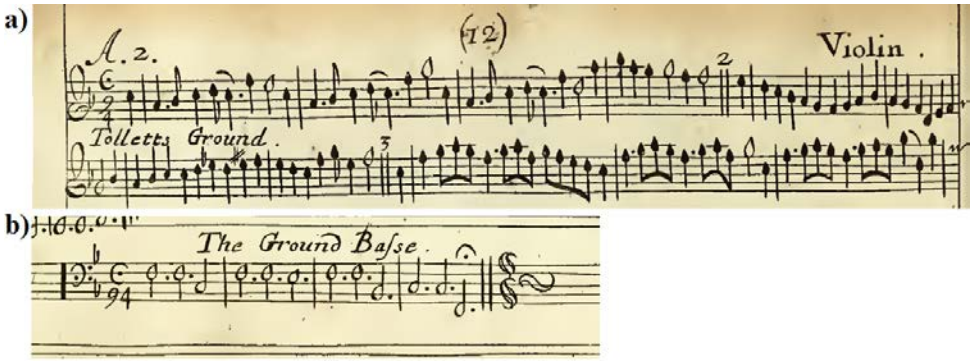
> Breaking the Ground is dividing its [the upper voice's][10] Notes into more diminute notes. As for instance, a Semibreye may be broken into Two Minims, foure Crotchets, eight Quavers, sixteen Semiquavers, etc. (Sympson, quoted in Allt 1945, 81)

[9] N.B.: Playford's *The Division Violin* (a collection of divisions) is a different work from Sympson's *The Division Viol* (a treatise on the instrument).

[10] The bracketed text has been inserted for clarity.

What Sympson is referring to here is diminution in the upper voice, which is played by the division viol. This became known as simply "divisions on a ground."

As shown in Example 2.1, the manuscript edition of Playford's *The Division Violin* places the ground basses separately from the divisions to which they belong. Example 2.1a shows the divisions, which are divided by double bar lines and numbered sequentially, and Example 2.1b shows the ground bass, which is written below the final division. Because of this, the intended ending of the ground is provided by the composer. In the case of the "Divisions on Tollett's Ground," the four-measure simple ground begins with F_3 on the downbeat and ends on F_2 on m. 4:3 with an implied AC.



Example 2.1. Manuscript of Divisions on "Tollett's Ground" (excerpt):
a) divisions 1 and 2; b) "Tollett's Ground"

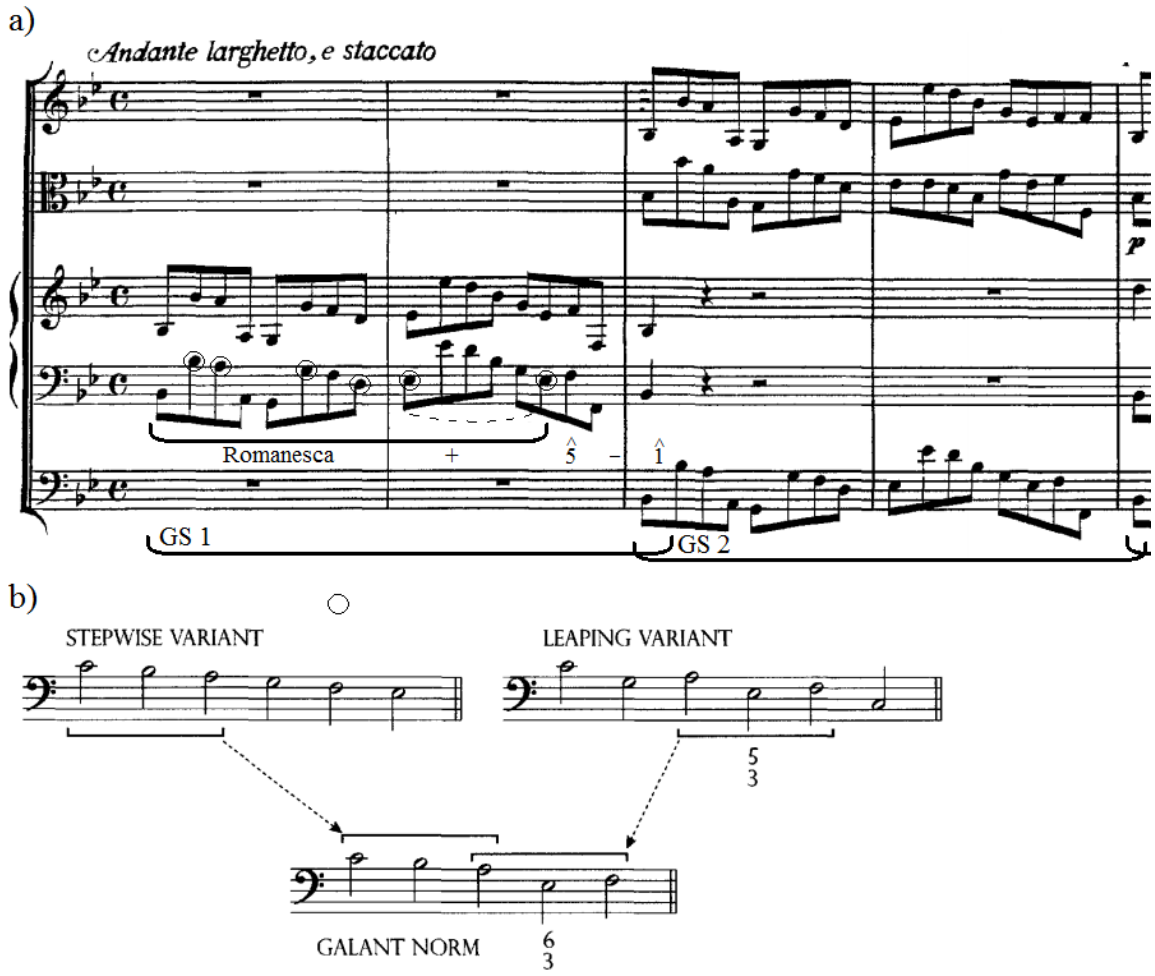
Example 2.2 provides the first two divisions with the ground in a two-staff format as well as their common middleground reduction. Each division begins with an upbeat and has a clear PAC at the end of each ground statement. At the deepest level, the bass implies a prolongation of the tonic harmony until the B♭ in the third measure of the ground, at which point the ground closes with the typical $\hat{4}$–$\hat{5}$–$\hat{1}$ cadential bass pattern. Likewise, $\hat{3}$ is held in the treble until the final measure of the ground at which point it concludes with $\hat{2}$–$\hat{1}$. Furthermore, each division is an elaboration of a melody in parallel tenths with the bass, with G to F ($\hat{2}$–$\hat{1}$) occurring in the

final measure. Therefore, the phrases in Example 2.2—along with the other nineteen divisions of the work—form sectional variations because 1) they coincide with the ground, ending with the ground's final $\hat{1}$ with an AC, and 2) they are elaborations of the same structure.

Example 2.2. Divisions on "Tollett's Ground": Divisions 1 and 2

Continuous Variations on a Ground

Continuous variations occur when each ground statement is interpreted as overlapping—that is, as ending on its final $\hat{1}$ that is the same as the next statement's initial $\hat{1}$—and each phrase is a variation on the same basic structure. Example 2.3a contains the first two ground statements of the second movement of Handel's Organ Concerto in G minor.

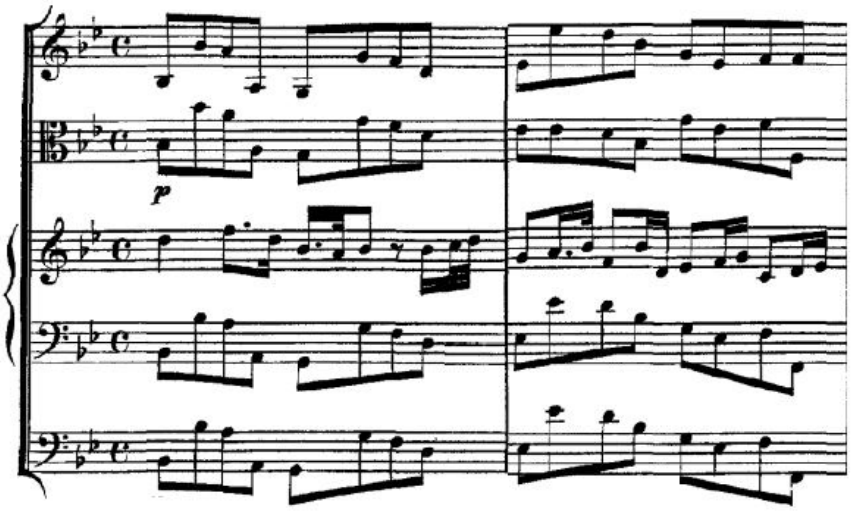


Example 2.3. Handel's Organ Concerto in G minor, Op. 7, No. 5, Mvt. II, mm. 1–5.

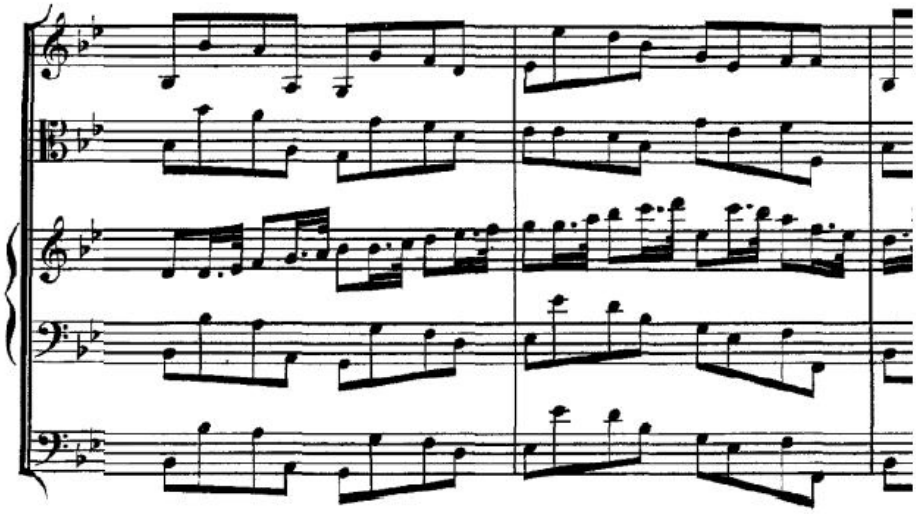
The ground in Example 2.3a is an elaborated form of a common variant of the Romanesca bass pattern[11] illustrated in Example 2.3b followed by a 5̂–1̂ cadential motion. The first ground statement is taken by the organ begins in both the bass and treble. This initial ground statement (mm. 1–3) ends on 1̂ (m. 3:1), and because that final 1̂ overlaps with the second ground statement played by the strings (mm. 3–5), an overlapping structure occurs.

[11] Specifically, this ground is a variant of the Romanesca bass pattern that Robert Gjerdingen (2007) calls the "Galant Norm." His Figure 2.3 (Ibid., 33) is reproduced here as Example 2.3b.

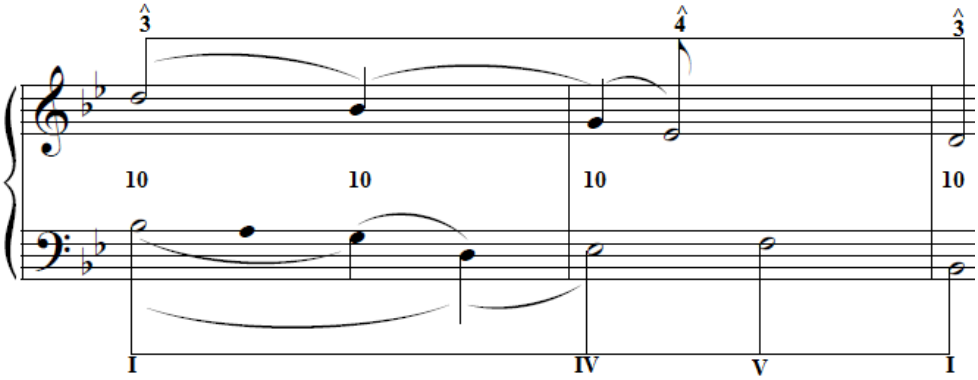
a)Var 1



b)Var 2



c) Common Middleground



Example 2.4. Handel Op. 7, No. 5, Mvt. II, mm. 5–9

The variations in Example 2.4a and b share the middleground structure provided in Example 2.4c. The first measure of each phrase (mm. 5 and 7) begins with $\hat{3}$ over the tonic harmony. In the second measure of each phrase (mm. 6 and 8), $\hat{3}$ moves to the neighboring $\hat{4}$ over the IV–V harmonic motion. Upon arriving on the dominant, $\hat{4}$ becomes the seventh of V_7 and resolves to $\hat{3}$ in the following measure with an IAC (mm. 7:1 and 9:1). Like the ground, the final $\hat{3}$ is elided with the $\hat{3}$ of the beginning of the following phrase. Furthermore, an important feature of this variation structure is that the melody of each phrase counterpoints the bass in parallel tenths at a half-note pulse (i.e., on mm. 5:1, 5:3, 6:1, etc.). Although the particular figuration, kinds of diminutions, and register are all variable, each phrase adheres to this basic plan, and this work is therefore a set of continuous variations over a ground bass.

Examples 2.2 and 2.4 are exemplary of the common treatment of a ground as a set of sectional and continuous variations, respectively; in each, the phrase structure implied by the ground statements by themselves is supported by the upper voice, and each phrase essentially elaborates the same structure. These works have been examined in order to provide a starting point for the study of ground-bass works that are not in variation form, which will be studied in the following sections.

Coinciding Period Structures

This thesis defines a *period* as any phrase that contains smaller phrases, where a phrase is understood as any complete harmonic and melodic tonal motion (Rothstein 1989, 17). While many authors limit the use of the term to a phrase pair in which the first cadence is relatively

weak and the second cadence is relatively strong,[12] the present definition places no such restrictions. Even so, the two-phrase period is the simplest and most common type of period structure. A pair of phrases that form a period may be characterized by the relative closure of the two phrases. If the first phrase ends with a weaker cadence than the second, it is a *weak-strong* period (e.g., a HC followed by a PAC). On the other hand, if the first phrase ends with a stronger cadence than the second, it is a *strong-weak* period (e.g., an IAC followed by a HC).

This section will examine period structures with phrases that coincide with the ground. It will be shown that composers may reinterpret whether an ambiguous ground ends on $\hat{5}$ or $\hat{1}$ in order to give rise to such structures.[13]

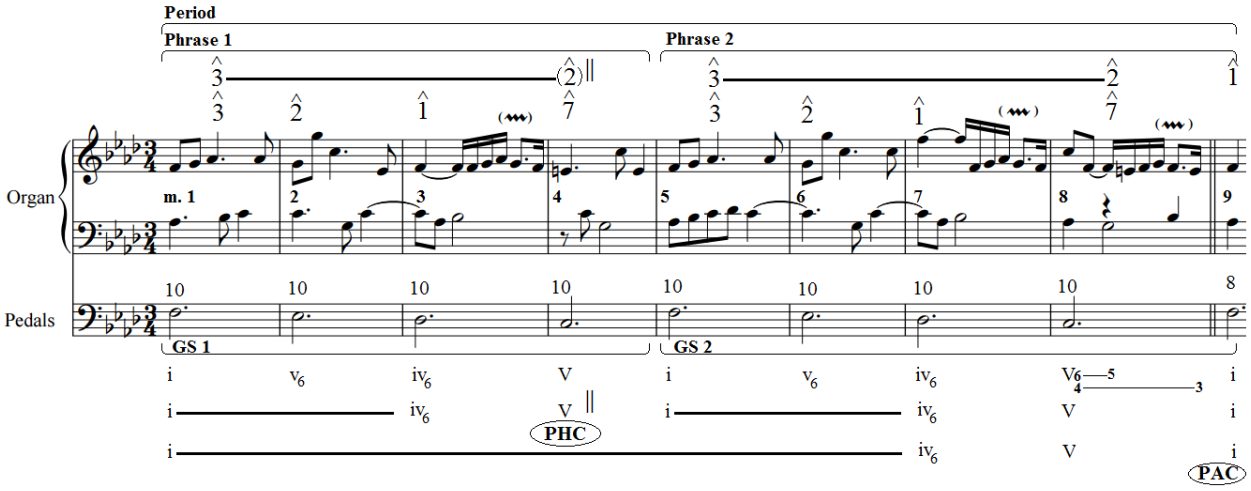
Weak-Strong Periods

The first two phrases of Pachelbel's Chaconne in F minor (Example 2.5) form a parallel period over the first two statements of the ground bass, which is the descending tetrachord bass.[14] The two phrases are nearly identical except for their ending. As was also the case in the other works that used a descending tetrachord ground, the melody contains a descending line in parallel tenths with the bass. Furthermore, each ground statement is harmonized with i–v_6–iv_6–V progression. However, there is an essential difference between the two phrases: the first ends with a Phrygian HC (PHC) and the second ends with a PAC that overlaps with the following ground statement.

[12] William E. Caplin (1998, 49–58) defines *period* in this way and puts further restriction on the length of each phrase.

[13] See Chapter 1, "Ground Endings" (10–11) for the discussion on ambiguity.

[14] I use parallel here to describe two phrases that share the same melodic material.



Example 2.5. Pachelbel's Chaconne in F minor, mm. 1–9

In the first phrase, the arrival of ♯$\hat{7}$/V in m. 4 occurs on the downbeat without a seventh. This strong arrival, together with the fact that following measure (m. 5) is clearly a repetition of m. 1, indicates a HC in m. 4. On the other hand, the corresponding passage in the second phrase (m. 8) is not at all stable; rather, it is a cadential 6/4 that does not fully resolve until the very last sixteenth note of the measure. Furthermore, the B♭ on m.8:3 as the seventh of the dominant harmony resolves to the A in m. 9. Therefore, while m. 4 is stable and a HC, m. 8 is unstable and resolves forward to m. 9 for a PAC. This may be understood as a low-level interruption, with the first phrase ending on an implied $\hat{2}$,[15] the second phrase reinitializing $\hat{3}$, and the complete $\hat{3}$–$\hat{2}$–$\hat{1}$ motion occurring at the end of the second phrase; in this way, these two phrases are a period—two phrases subsumed under one tonal motion.

Following this eight-measure theme that consists of a parallel period, Pachelbel writes four-measure variations that end with AC's. Pachelbel uses a similar technique in the F major

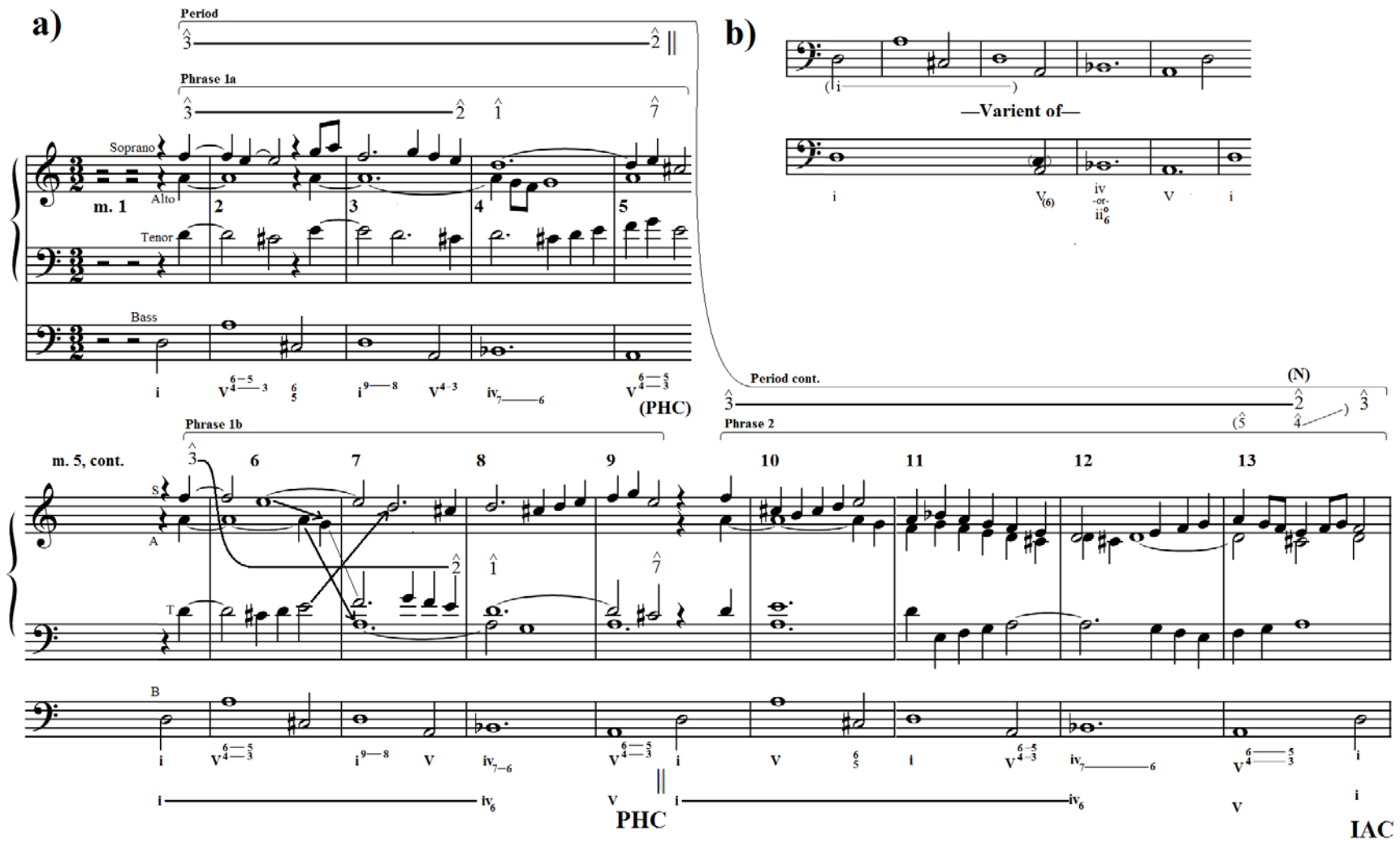
[15] See William Rothstein, "On Implied Tones,"*Music Analysis* 10, no. 3 (Oct., 1991) for a thorough discussion on implied tones.

(Example 1.7) and D minor (not shown) Chaconnes as well, in which the theme is a weak-strong period and the following variations are repeated four-measure phrases that end with AC's.

While it is most common for periods to contain only two phrases, it is possible for a period to consist of three or more and still fall into the strong-weak or weak-strong category. This is the case for the first three phrases of Buxtehude's Passacalia in D minor for Organ (Example 2.6), which together form a weak-strong period. As illustrated in Example 2.6b, the work's four-measure simple ground may be heard as a variant of the descending tetrachord ground. The ground begins on beat 3 with D_3, and that initial $\hat{1}$ is likely heard as prolonged through the second full measure of the ground. The pitches that follow (mm. 2–4) are the same modification of the descending tetrachord ground as was previously encountered in Pachelbel's Chaconne in F major (Examples 1.8 and 1.9), and similarly the A in m. 2 may be understood to substitute for a C. While descending tetrachord grounds are often ambiguous, it is difficult to hear this particular ground as ending on $\hat{1}$ due to its weak metric placement on beat 3; however, this interpretation is not altogether impossible, and Buxtehude takes advantage of this fact by ending the first two phrases with HC's and the third phrase with an IAC.

Because the first two phrases in Example 2.6 are variants of each other, they are aligned vertically and labeled Phrase 1a and Phrase 1b, respectively. Phrase 1b (mm. 6–9) begins the same way as Phrase 1a (mm. 1–5), but in mm. 6–7 there is a kind of voice-rotation; that is, all three melodic lines from Phrase 1a continue in Phrase 1b, but as indicated with arrows in Example 2.6, the melody in the soprano continues in the alto, the melody in the alto continues in the tenor, and the melody in the tenor continues in the soprano.[16] For example, the soprano

[16] N.B.: The ground bass is taken by the organ pedals; therefore, the lowest voice in the organ manuals is considered to be the tenor voice. Furthermore, the alto (the middle melodic voice) moves from the upper staff to the middle staff from mm. 6–7.



Example 2.6. Buxtehude's Passacalia in
D minor for Organ, mm. 1–13

melody in mm. 5–6 is the same as the soprano melody from mm. 1–2 (F–E), but the soprano melody from mm. 2–5 continues in the alto in mm. 6–9.

In Phrases 1a and b, the initial D–A–C♯–D of the ground (mm. 1–3 and 5–7) is treated as tonic prolongation, and the following D–A–B♭–A of the ground (mm. 3–5 and 7–9) is counterpointed with the line $\hat{3}$–$\hat{2}$–$\hat{1}$–$\hat{7}$ (indicated by scale degree numbers) and the harmonic progression i–V–iv$_6$–V that usually accompany the descending tetrachord bass line. The harmonies reached on mm. 5:2 and 9:2 are both stable, as they contain no seventh, and both are followed by rests in the upper voices, with only the initial $\hat{1}$ of the ground present on the third half note of mm. 5 and 9. Furthermore, the C♯ in the soprano of m. 5 fails to resolve to D as would be expected for an AC, and while the C♯ in the alto of m. 9 does resolve to the D, it is unlikely that a listener would interpret m. 9 differently from m. 5. These considerations indicate that mm. 5 and 9 should be interpreted as PHC's and not IAC's. However, the melodic content of Phrase 2 (mm. 10–13) differs significantly from that of Phrases 1a and b. In m. 13, the dominant does contain the seventh, and the melody consists of a $\hat{5}$–$\hat{4}$–$\hat{3}$ (indicated by scale degree numbers in parentheses in Example 2.6a) motion over that V$_7$–i. Because of these factors, there is an IAC in m. 13.

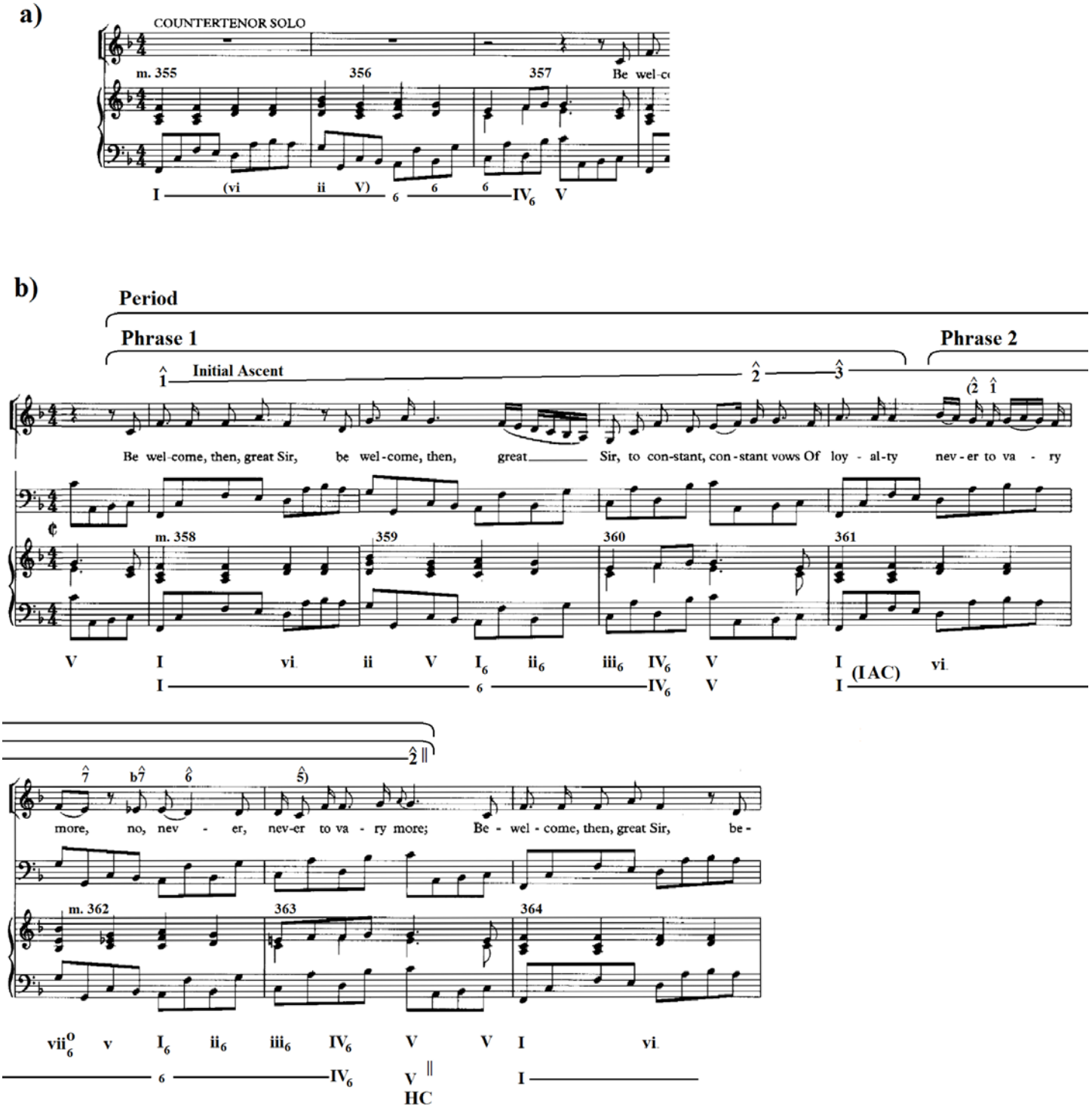
Together, the three phrases in Example 2.6a form a weak-strong *contrasting* period.[17] As indicated by the scale degree numbers under the "Period" bracket and the lowest level of Roman numerals, the first two phrases consist of the interrupted motion $\hat{3}$/i–$\hat{2}$/V‖ ending with a PHC, and the final phrase consists of the neighbor motion $\hat{3}$/i–$\hat{2}$/V–$\hat{3}$/i ending with a IAC—Phrase 2 completes the interrupted motions in Phrase 1a and b.

[17] I use *contrasting* to indicate periods whose phrases do not share melodic material—as is the case with Phrase 1 (a and b) and Phrase 2 in Example 2.6a.

Strong-Weak Periods

A strong-weak period is one that consists of two phrases in which the final cadence is weaker than the first. Consider Purcell's "Be welcome, then, great sir" from his Royal Welcome Song *Fly, Bold Rebellion*. Like many works in the ground-bass genre, the song begins with a solo statement of the ground with continuo (Example 2.7a). The simple ground has an atypical length of three measures and seems to be clearly overlapping, since the running-eighth-note figuration detracts from the sense of repose that is often needed for a HC. The ground first implies a harmonic motion from I (m. 355:1) to I6 (m. 356:3) through a I–vi–ii–V–I6 progression. The second part of the ground moves from that I6 (m. 356:3) to IV6 (m. 357:2) by means of parallel 6/3 chords, and this in turn progresses to the final V (m. 267:3). The ground then provides a quick and unusually placed $\hat{3}$–$\hat{4}$–$\hat{5}$ in the midst of the dominant prolongation moving directly to I in m. 368. This final $\hat{5}$–$\hat{3}$–$\hat{4}$–$\hat{5}$–$\hat{1}$ of the ground gives the definite feeling of resolution to the final $\hat{1}$, and thus gives the impression of an overlapping structure. However, as will be shown, Purcell variably interprets the final $\hat{3}$–$\hat{4}$–$\hat{5}$–$\hat{1}$ as either the end of a phrase or otherwise as a link after a HC.

The first phrase in Example 2.7b coincides with the second statement of the ground (mm. 358–361). In the context of the present period, the phrase functions as an initial ascent to $\hat{3}$. As expected, the phrase overlaps with the following ground statement. The melodic character of the second phrase is completely different from the first. While the first has a generally rising contour ($\hat{1}$–$\hat{2}$–$\hat{3}$), the second phrase consists of a subsidiary stepwise line from $\hat{3}$ down to $\hat{5}$ (mm. 361–363; indicated by scale degree numbers in parentheses). However, the overall motion of the phrase is from Kopfton $\hat{3}$ to $\hat{2}$ in m. 363. The dominant in m. 363 coincides with the end of the lyrical phrase, and that together with the fact that what follows (mm. 364ff.) is a repetition of

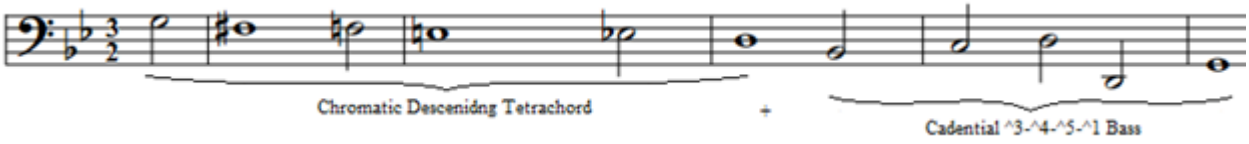


Example 2.7. Purcell: Fly, Bold Rebellion, “Be welcome then, great sir,” mm. 355–364

mm. 358–363 supports the idea that m. 363:3 is a HC. In this view, the $\hat{3}$–$\hat{4}$–$\hat{5}$ that follows in the bass may be considered a link.

This piece represents perhaps the most common class of strong-weak period structures, in which the first phrase provides an initial ascent and the second phrase consists of motion down to $\hat{2}$/V for a HC. Also of interest is Purcell's varying melodic counterpointing of the ground; the melodic material in the first phrase is completely different from that in the second. Therefore, while both phrases use the same bass line and harmonic progression, they are otherwise remarkably dissimilar.

The aria "When I am laid in earth"—popularly known as "Dido's Lament"—from Purcell's *Dido and Aeneas* is particularly representative of period structures in the ground-bass genre, as it contains both a strong-weak period whose phrases coincide with the ground as well as a weak-strong period whose phrases do not coincide with the ground. As shown in Example 2.8, the five-measure compound ground begins on beat 3, consists of a chromatic descending tetrachord followed by a $\hat{3}$–$\hat{4}$–$\hat{5}$–$\hat{1}$ cadential bass line, and ends on beat 1. Although the ground itself ends on $\hat{1}$ and is non-overlapping, two of the four main phrases of the work overlap with the end of a ground statement rather than start at its beginning on beat 3.[18]



Example 2.8. Ground Bass for "When I am Laid in Earth"

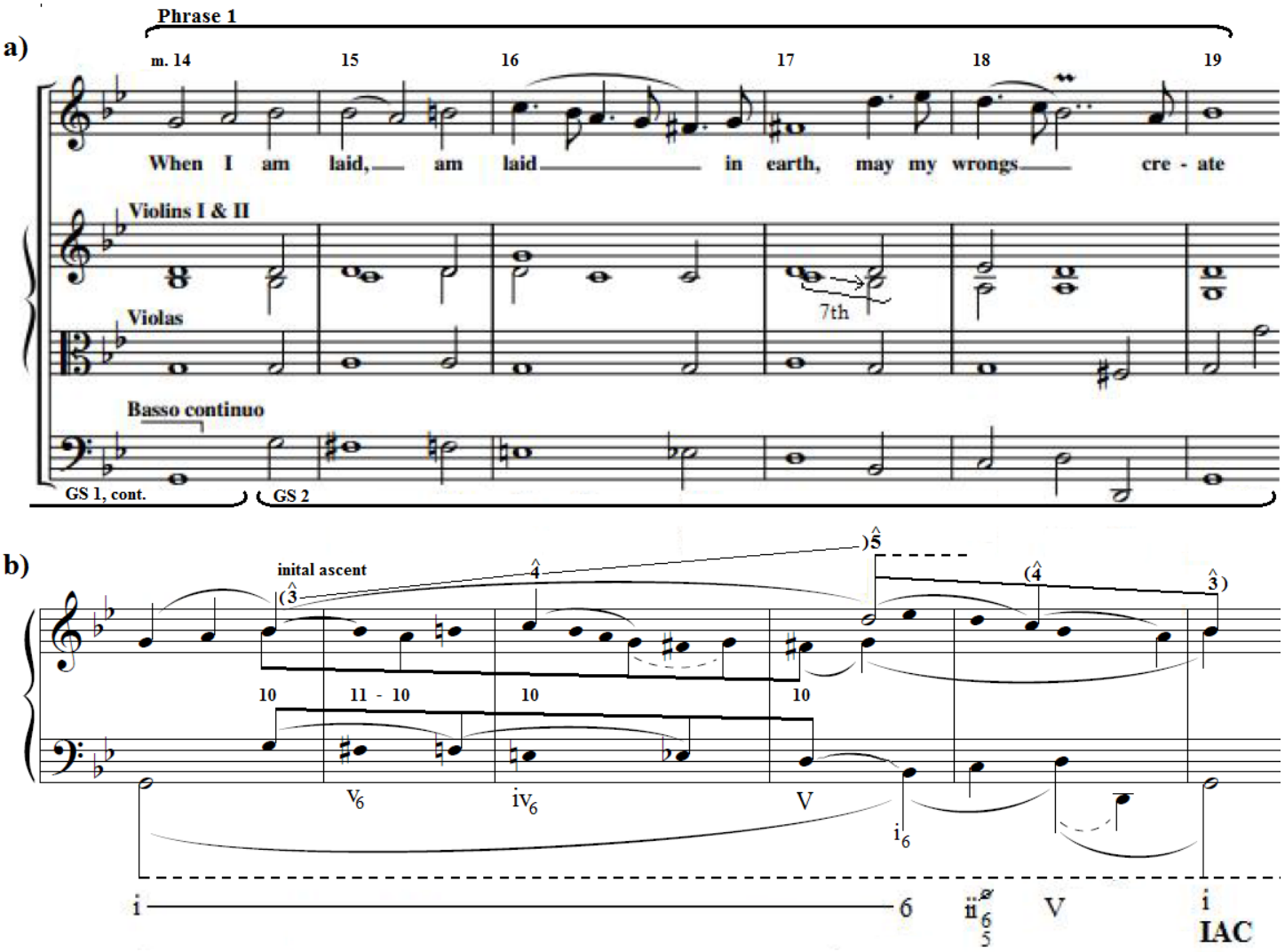
Following nine measures of *recitativo secco*, the continuo plays the initial statement of the ground by itself. The rest of the work may be divided into two main sections based on its

[18] This phenomenon occurs in mm. 14 and 34, as shown in Examples 2.9 and 2.13

phrase structure. The A section (mm. 14–33) will be discussed presently as another example of two phrases that coincide with the ground and form a strong-weak period, and the B section (mm. 34–54) will be discussed in the following section as an example of two phrases that do not coincide with the ground and form a weak-strong period.

As shown in Example 2.9a, the first phrase begins with the entrance of the vocal line over the final note of the first ground statement on m. 14:1 and continues for the entire second ground statement (labeled GS2), ending on m. 19:1. The vocal line forms a two-voice polyphonic melody, as shown by the graph in Example 2.9b. These two lines begin with the B♭ on m. 14:3 and proceed in contrary motion with each other. The B♭ moves by means of an 11–10 suspension to A in m. 15, which begins the *descending* line in parallel tenths with the bass (shown in 2.9b with the beamed notes in the inner voices and 10's between the staves) that is common for descending tetrachord bass lines. Then, that same A then moves up through B♮ to the C in m. 16, which begins an *ascending* line from the B♭ in m. 14 to the D ($\hat{5}$) in m. 17 (shown in 2.9b with the $\hat{3}$–$\hat{4}$–$\hat{5}$ initial ascent in mm. 14–17). The vocal melody proceeds from that C in m. 16 downward by step to G, which is the continuation of the descending line in parallel tenths with the ground.

The two lines conclude in m. 17, with the F♯ on beat 1 as the goal of the descending line and D on beat 3 as the goal of the ascending line. The arrival of the bass D in m. 17 is heard as a goal for at least three reasons: 1) the descending tetrachord is a well-known figure with the fifth as its goal; 2) the lower line in the polyphonic melody of the voice supports the bass line in parallel tenths, as demonstrated above (see the "alto" voice of Example 2.9b); and 3) the $F♯_4$ in m. 17 receives an agogic accent. Even so, the seventh of the dominant harmony (C) present in the second violin in m. 17 weakens the sense of repose and demands that the V_7 progress to the

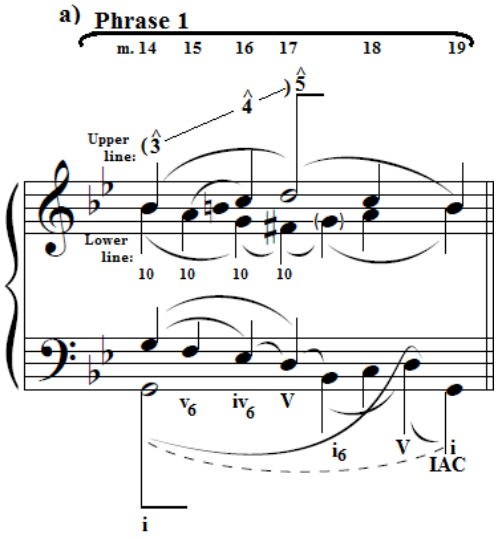


Example 2.9 Phrase 1 of "When I am Laid in Earth" with Schenkerian Graph

following i_6 harmony on beat 3. Therefore, while it is not unreasonable to consider the arrival in m. 17 a cadence, it is not taken to be so in this analysis because of 1) its lack of tonal completion 2) the fact that the upper line in the polyphonic melody is still in progress.

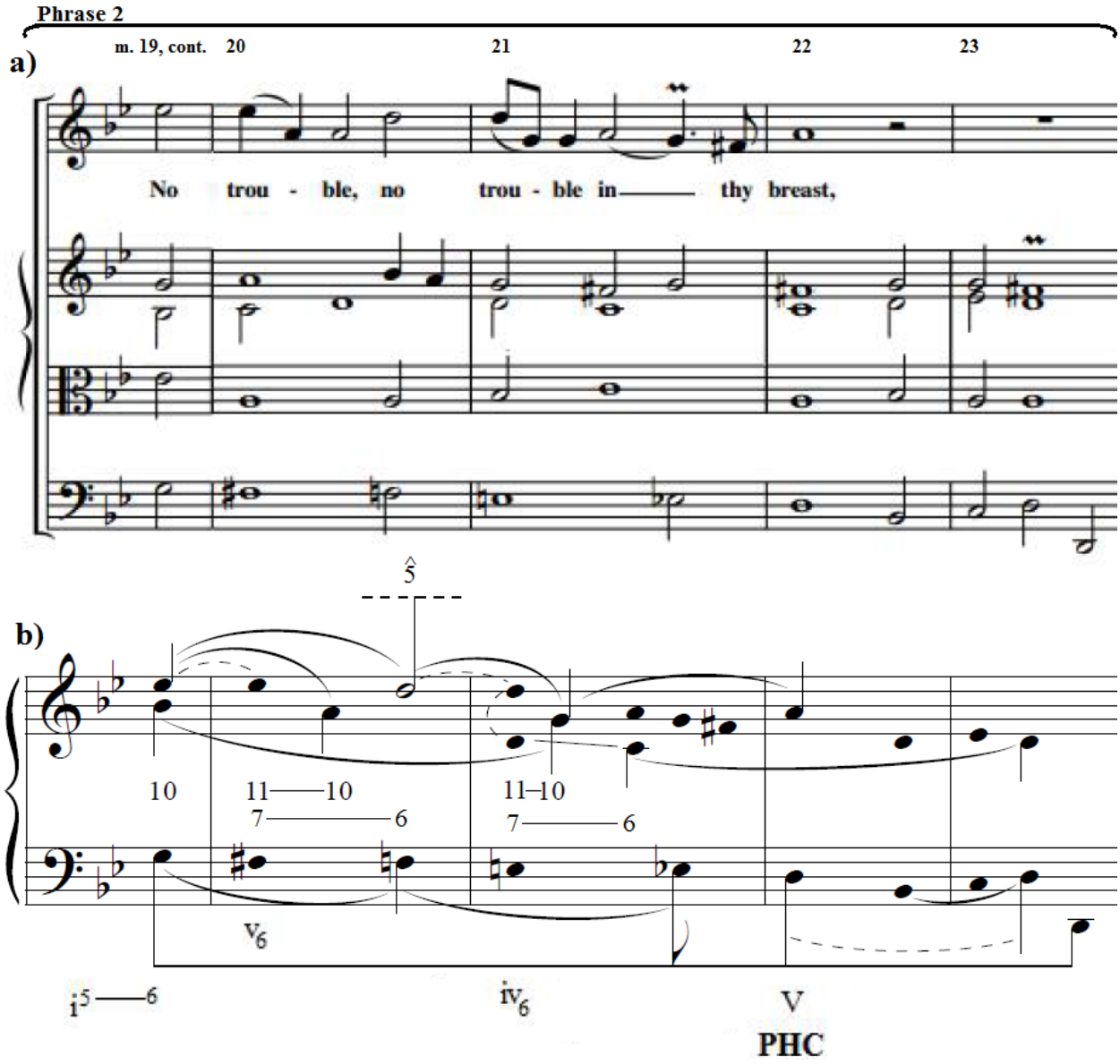
The phrase continues toward the cadence in m. 19 over the ground's $\hat{3}$–$\hat{4}$–$\hat{5}$–$\hat{1}$ cadential bass line. The melody reaches its peak on m. 17:3 with D_5 over the ground's B♭. This D is the goal of the third-progression that began in m. 14 with B♭, with the C in m. 16 as t intermediate note. This B♭–C–D third progression constitutes the upper line in the polyphonic

melody created by the vocal line. With the climax of the line reached with the D in m. 17, the phrase moves towards its cadence. That D on m. 17:3 progresses to C over the ground's C in m. 18 and then to B ♭ over the ground resolves properly to A/V, which in turn resolves to B♭4/i over the ground's final 1̂. The three-part counterpoint created by the ground and the two-voice polyphonic melody in the first phrase is summarized with the middleground graph in Example 2.10.



Example 2.10. "When I am Laid in Earth": Middleground Graph of Phrase 1

The graph in Example 2.10 shows the two lines formed by the voice with the ground. The lower melodic line counterpoints the ground's descending tetrachord in parallel tenths. At the same time, the upper melodic line moves up to the D in m. 17. This is followed by a motion from that D to B♭ in m. 19 for an IAC. The upper-voice motion in Phrase 1 contrasts with that of Phrase 2 (see Example 2.11).

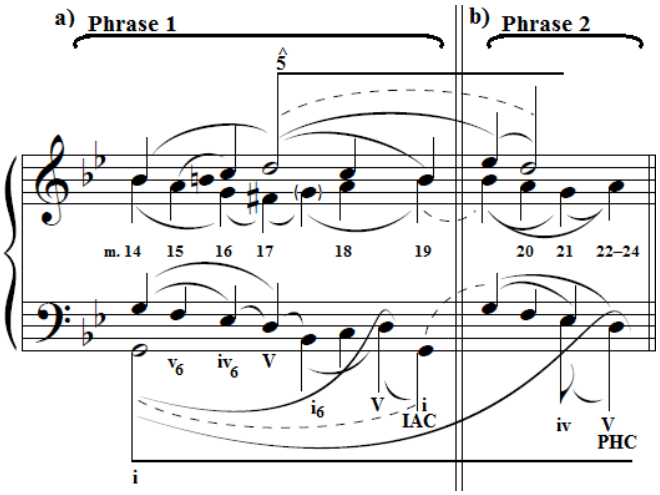


Example 2.11. Phrase 2 of "When I am Laid in Earth" with Schenkerian Graph

While the beginning of first phrase overlaps with the final $\hat{1}$ of the first ground statement (GS1), the second phrase is non-overlapping and begins with the initial $\hat{1}$ of the third ground statement (GS3). While like the first, the second phrase consists of a two-voice polyphonic melody (see Example 2.11b), the counterpoint is different. The phrase begins with E♭ on m. 19:3, but then leaps down to A in m. 20. The E♭ becomes a suspension in m. 20, much like the

B♭ in mm. 14–15, and resolves to D over bass F on m. 20:3. In a similar way, the D becomes a suspension in m. 21. While that D moves to G in the voice, the suspension is resolved by the second violin. The result is that the lower melodic line of the polyphonic melody—just as in the first phrase—moves in parallel tenths with the bass, but the upper melodic line of the polyphonic melody—unlike in the first phrase—is a motion from E -part counterpoint to D. This three formed by the ground and polyphonic melody in the first and second phrases is summarized with the following middleground graph (Example 2.12):

The graph in Example 2.12 contains the main points of this analysis: 1) the two phrases provide two remarkably different melodic realizations of the ground—not only in terms of counterpoint and cadence type, but also their functions in relation to each other and, as will be shown in Chapter 3, the work as a whole; and 2) these two phrases together form a period. In the first phrase, there is an initial ascent to the Kopfton D followed by a descent to B♭ for an IAC. In the second, there is a neighboring motion D–E♭–D and an inner voice motion from B♭–A for a PHC. As shown in Example 2.12, the two phrases together form the larger tonal motion B♭–C–D–E♭–D over two ground bass cycles, ending with a PHC in m. 22. This larger tonal motion,



Example 2.12. "When I am Laid in Earth": Middleground Graph of Phrases 1 and 2

which contains these two phrases with the first stronger than the second, is rightly called a period of the strong-weak type.

Non-Coinciding Period Structures

The previous section demonstrates the potential for phrases that coincide with the ground to form periods. While the existence of such periods provides evidence for non-variation forms in ground bass works, an even more striking phenomenon occurs when phrases that do not coincide with the ground form periods. When this happens, the ground itself becomes less of a primary organizing force for the work. Non-coincidence occurs in any of three ways: 1) when a phrase does not coincide with beginning of the ground, 2) when it does not coincide with the end of the ground, or 3) when it spans multiple statements of the ground. Furthermore, unlike coincidental phrase types (i.e.., sectional, closed, and overlapping), these are non-exclusive categories; that is, a phrase may exhibit all three ways of non-coincidence.

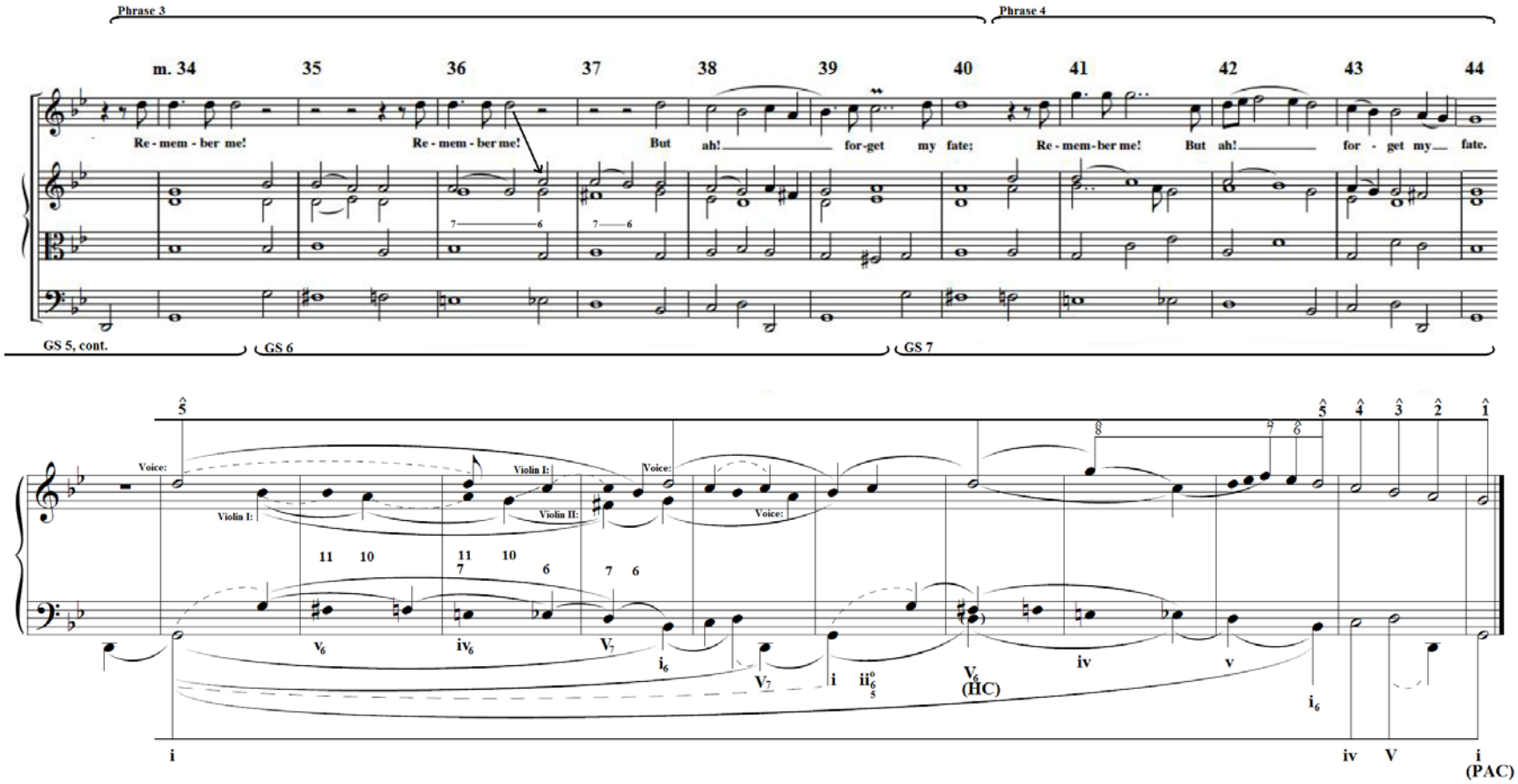
Purcell: Dido's Lament, mm. 34–54

The A section (mm. 9–33) of "When I am Laid in Earth" from Purcell's opera *Dido and Aeneas* was examined in the previous section as an example of a strong-weak period whose phrases coincide with the ground; in contrast, the B section (mm. 34–54) consists of two similar weak-strong periods whose phrases do not coincide with the ground. The phrases in the B section will be examined in order to show 1) how the ground is resegmented in accordance with these phrases and 2) how the phrases relate to each other.

The first phrase of the B section (Example 2.13, mm. 34–40) overlaps with the final $\hat{1}$ of the fifth ground statement (labeled GS5). Unlike the phrases in the A section, there is no polyphonic melody in the vocal line; however, the line that forms parallel tenths is still present

with the bass in the violins. The vocal line begins in m. 34 by repeating D over the text "Remember me!" followed by more than a measure of rest. In this empty space, the first violin provides its own melodic line in parallel tenths—elaborated with 11–10 suspensions—with the bass. The vocal line then repeats the D in m. 36 over the same text, "Remember me!," but this time over the ground's E♮. While this seventh is not resolved in the vocal line, the D–C resolution is taken by the first violin on m. 36:3.

The vocal line in mm. 34–37 is completely static over the plea "Remember me!" However, movement begins in m. 38 with a literal sigh over the vocable "ah!", beginning with C on the downbeat of that measure over the ground's C–D and moving to B♭ (voice) over the ground's final G in m. 39. The voice's third-progression D–C–B♭ over the ground's final $\hat{3}$–$\hat{4}$–$\hat{5}$–$\hat{1}$ cadential bass line is comparable to the cadence in the first phrase of the work (Example 2.9, mm. 14–19). However, unlike the first phrase, this phrase does not end here. Instead, both the lyrical and musical phrases continue with the text "forget my fate" set to a stepwise ascent from the B♭/i on m. 39:1 to C/ii$^{ø}_{42}$ on m. 39:2, concluding with D/V_6 on m. 40:1 for a HC in the middle of the ground. Purcell continues the phrase over the ground in this passage (mm. 39–40) in two ways. First, the harmonic motion continues over the ground by reinterpreting the final $\hat{1}$ of the ground from the root of the tonic harmony on m. 39:1 to the seventh of the half-diminished supertonic harmony in third inversion on m. 39:2, which demands harmonic continuation. Secondly, the melodic motion does not rest on B♭, but rather rises up through C on m. 39:2 back to D on m. 40:1.



Example 2.13. Phrases 3 and 4 of “When I am Laid in Earth” with Schenkerian Graph

The consequent phrase (Example 2.13, mm. 41–44) begins with the third note of the ground (F♮) on m. 40:3 as a pickup. In the context of the lament, this phrase is unique in three ways. First, it does not begin on the initial or final $\hat{1}$ of the ground. It effectively resegments the ground into 1 + 4, where the first measure (m. 40) belongs to antecedent phrase and the last four measures belong to the consequent (mm. 41–44). This is even more striking when one considers that Phrases 1 (Example 2.9, mm. 14–19) and 3 (Example 2.11, mm. 34–40) overlap with their previous ground statements, and so the beginning of Phrase 4 (Example 2.13, m. 41) on the second full measure of the ground statement is not only one but two measures late in relation to the previous phrases. Secondly, it does not contain the counterpointing line in parallel tenths with the ground. This is trivially true because of where the phrase begins in relation to the ground statement, but even when one includes the beginning of the sixth ground statement there is no line B♭–A–G–F♯ as in previous ground statements. Thirdly, the main upper line that counterpoints the bass consists of an octave descent from G_5 to G_4 for the structural close of the work.

The phrase begins by repeating the text "Remember me!" with a leap D_5–G_5 to the highest note in the work. Then, the sigh over the vocable "ah!" in m. 42 begins the descent back to the Kopfton from that high G_5, F–E♭–D, after which the final top-voice decent $\hat{5}$–$\hat{4}$–$\hat{3}$–$\hat{2}$–$\hat{1}$ occurs over bass i_6–ii^o_6–V–i, concluding with a PAC as the structural close of the work (mm. 43–44).

The purpose of this analysis is to demonstrate that Phrases 3 and 4 of this work 1) are dissimilar enough so as not to be considered variations of each other despite their shared bass material and 2) function together as a larger unit of tonal motion—a period. This is achieved here by showing their unique but complementary middleground structures. Similarly, in order to make

the case for an overall binary form in this work or in any work that uses a ground bass, it is necessary to demonstrate that it has two sections that differ in some significant way despite the fact that they share the same bass material; otherwise, the two sections could be considered simply as A and A'. In the case of this work, what I have called the A and B sections do indeed meet this criterion. While this perhaps follows clearly from the presented analyses, this particular point will be revisited briefly at the beginning of Chapter 3.

Purcell: O Solitude, mm. 1–13

The first two phrases of Purcell's *O Solitude* (Example 2.14) were discussed in Chapter 1 as phrases that do not coincide with the ground.[19] As with "When I am Laid in Earth," *O Solitude* demonstrates the remarkable ability for the upper voices to effectively reinterpret the phrase structure implied by the statements of the ground. The first phrase (mm. 1–6) cadences in the middle of the second ground statement, and while the beginning of the second phrase (mm. 7–13) does not coincide with the ground, its end does coincide with the end of the third ground statement. These two phrases together form a weak-strong period over the first three statements of the ground. The overall shape of this period consists of an initial ascent (mm. 3–6) from C to E♭, an upper neighbor F (m. 7), and a three-line descent to the tonic E♭–D–C (mm. 9–13).

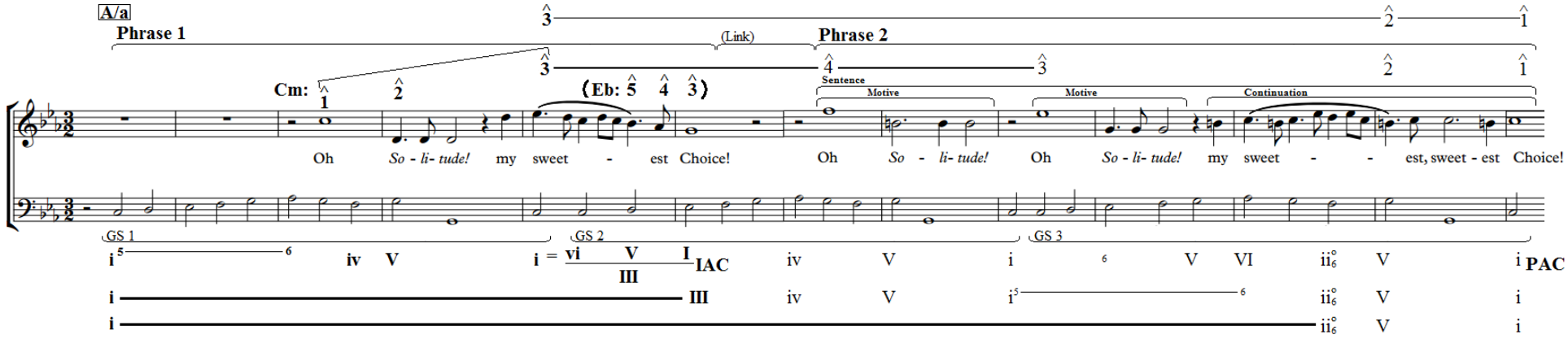
The initial ascent in mm. 3–5 begins in the third measure of the first ground statement and is completed at the end of that same ground statement. For reasons given in Chapter 1, this cannot be a cadence.[20] Although the E♭ is retained as the main tone ($\hat{3}$) in the top voice on a

[19] See Chapter 1, Musical Phrases, *Phrases that Do Not Coincide with the Ground* for the preliminary discussion of the ground.

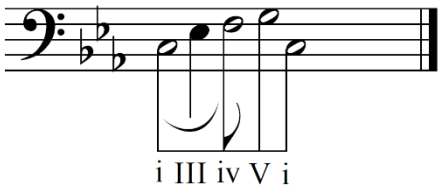
[20] Ibid. See also the discussion by Rothstein (1989: 5–10) on Strauss's *Blue Danube*, in which he makes a similar case for not realizing a cadence in m. 28 of that work.

larger scale, the more immediate motion is the downward descent from that $E\flat_5$ to G_4 for the IAC in m. 6. While the G_4 in m. 10 is a goal of the descending motion unto itself, the descending stepwise line ultimately continues with octave transference through the F_5 in m. 7 to the $E\flat_5$ in m. 9.

The cadence on III is not without precedent. In fact, a common structural schema in minor-key pieces of the tonal repertoire is the i–III–iv–V–i bass arpeggiation, in which III may be highlighted as a temporary goal (see Example 2.15). Such is the case in the first period of *O Solitude* (mm. 1–13). After the initial ascent to E♭/i (mm. 3–5), there is a motion from that E♭/i to G/III (mm. 5–6), which tonicizes E♭ with $(V_{65}$–I)/III in mm. m. 5–6 for an IAC in E♭. The III progresses to iv–V in mm. 8–9, which resolves to the i in m. 9, completing the i–III–iv–V–i model described in Example 2.15. Although the move to III is an important foreground event, the i–III–iv–V–i progression (mm. 1–9) ultimately serves to prolong the treble E♭ over the tonic harmony, and it is not until the final measures of the second phrase (mm. 9–11) that the final the $\hat{3}$–$\hat{2}$–$\hat{1}$ descent of the period occurs.



Example 2.15. O Solitude, mm. 1–13



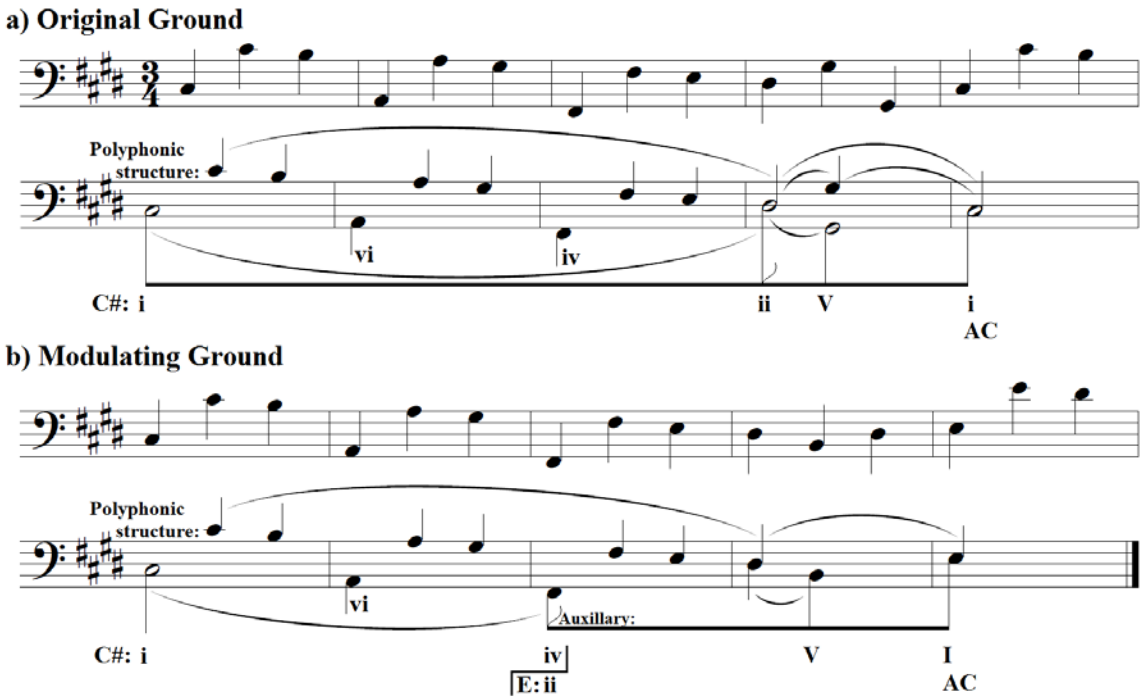
Example 2.14. i–III–iv–V–i bass arpeggiation schema

Ground Transposition and Transference

A strict ground-bass composition adheres to a bass pattern without modification. However, some ground bass works do contain significant alterations to the ground while still maintaining its repetitive character. Two kinds of alterations occur. First, the ground may be transposed, providing the same bass pattern at different pitch levels. In order to accomplish this, the end of the ground may need a slight adjustment to coherently connect to the following transposed ground statement. Second, the ground may be transferred to an upper voice, which allows for a new bass line to be composed. Because these fall only peripherally in the topic of ground bass—since they are not strictly repeating bass lines—these two techniques will be examined only briefly.

Modulation of the Ground: Bach Violin Sonata No. 3, BWV 1016

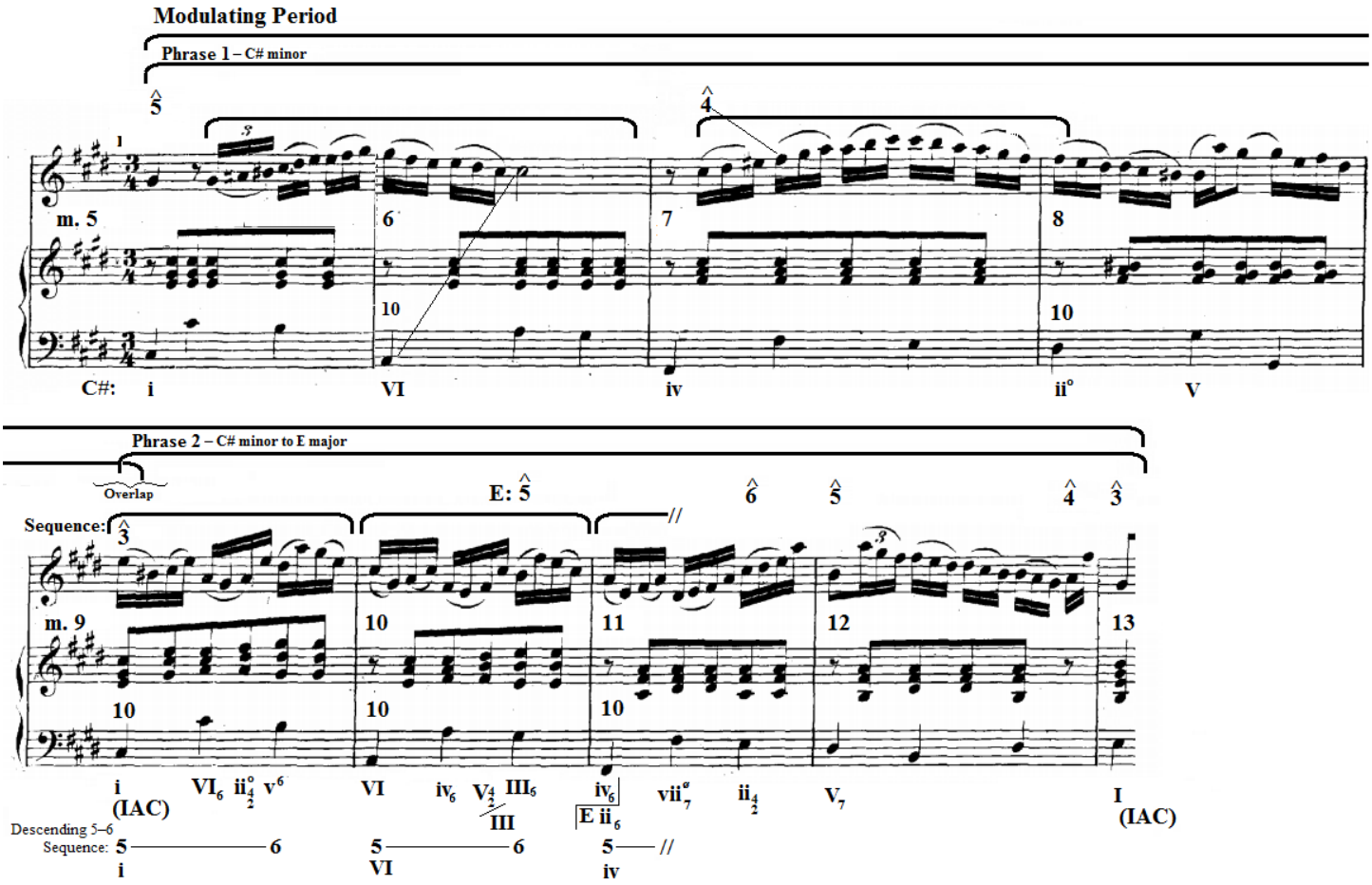
The andante movement of Bach's Violin Sonata No. 3, BWV 1016 uses a ground bass that modulates to various keys throughout the work. In order to achieve this, the ground must be altered slightly to accommodate a modulation. Consider the ground in Example 2.16a and its modification in 2.16b. As illustrated by the graph underneath the ground in 2.16a, the five-measure overlapping ground consists of a two-part polyphonic melody: the lower voice consists of a line in descending thirds, $C\sharp_3$–A_2–$F\sharp_2$–$D\sharp_3$, and the upper voice consists of a stepwise line from $C\sharp_4$ to $D\sharp_3$. In the original ground (Example 2.16a), the D♯ in m. 4 acts as the structural predominant in a ii^o–V–i cadential progression (mm. 4–5). The alteration in the modulating version of the ground (Example 2.16b) occurs in the third and fourth measure of the ground. Instead of proceeding to G♯ on m. 4:2, the D♯ in m. 4:1 is the upper third of the following B, which acts as the dominant of E major (III). As shown in Example 2.16b, the iv in m. 3 acts as a pivot harmony between C♯ minor and E major and initiates an auxiliary cadence.



Example 2.16. Bach Violin Sonata No. 3 (BWV 1016) (a) Original Ground and (b) Modulating Ground

Example 2.17 consists of the first two phrases of the work, which follow a four-measure introduction (not shown).[21] The first phrase (mm. 5–9) coincides with the ground, which is in its original form (Example 2.16a). The phrase begins with a stepwise line in sixteenth-note triplets over i–VI (mm. 5–6) that rises from G♯$_4$ to G♯$_5$ and then descends to C♯$_5$. The subsequent measures (mm. 7–8) contain that same melodic figure transposed up a fourth—rising from C♯$_5$ to C♯$_6$ and then descending to F♯$_5$ over iv–ii^o. Unlike in m. 6, in which the descending motion stopped with the C♯$_5$, the descending motion continues from the F♯$_5$ on the downbeat of m. 8 to B♯$_4$ and then leaps up to A$_6$–G♯$_6$ on the second beat of that measure. The phrase then ends with a descent to $\hat{3}$/i for an IAC in m. 9.

[21] Note that the introduction (mm. 1–4) is identical to mm. 5–8 without the violin part.



Example 2.17. Bach Violin Sonata No. 3 (BWV 1016), Andante, mm. 5–13

The differences between the two phrases in Example 2.17 demonstrate a great deal of flexibility in their melodic and harmonic treatments of the ground. The second phrase in Example 2.17 (mm. 9–13) also coincides with the ground, but the ground statement with which it does so is the modulating version from Example 2.16b. While the modulating version only differs from the original by changing its final three notes from G♯–G♯–C♯ to B–D♯–E, the second phrase (Example 2.17, mm. 9–13) differs from the first more significantly. The phrase begins in m. 9 with an elaborated descending 5–6 sequence with two full one-measure units and one partial unit (the interruption of the melodic sequential motion is indicated by the // symbol on the score). The actual modulation occurs in the third measure of that sequence (m. 11), an entire measure before the ground is altered in m. 12, and the ĝ/ii in E major on the downbeat of m. 11 begin the harmonic and melodic motion toward the auxiliary IAC in m. 13.

	Intro	Period 1		Period 2	
Measures	**1–4**	**5–9**	**9–13**	**13–17**	**17–21**
Phrase		a	b	a’	b’
Ground	Original	Original	Modulating	Original	Modulating
Key	C♯m	C♯m	C♯m→E	E	E→G♯m
	i ——————————————— III ——————————— v				

Example 2.18. Form diagram of BWV 1016, Andante, mm. 1–21

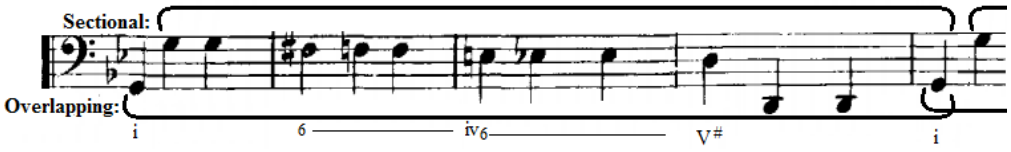
While not provided, the following two phrases of the work are a tonal transposition of the first two up a third; that is, the third phrase (mm. 13–17) is like the first (mm. 5–9) but is in E major, and the fourth phrase (mm. 17–21) is like the second (mm. 9–13) but is in E major and modulates to G♯ minor. The modulation of the ground allows for a more complex tonal structure than is usually possible for a ground-bass work. Consider the form diagram in Example 2.18. After the introduction (not provided, but identical to mm. 5–8 without the violin part), Period 1 (Example 2.17, mm. 5–13) consists of a phrase in C♯ minor that coincides with the original version of the ground (Example 2.17a) followed by a phrase that coincides with the modulating version of the ground (2.17b), which modulates from C♯ minor to E major (i–III). Period 2—whose phrases are the same as Period 1 in keys a third higher—likewise consists of a phrase that coincides with the original version of the ground in E major followed by a phrase that coincides with the modulating version of the ground, which modulates from E major to G♯ minor (III–v). The resultant structure of these four phrases is a large-scale i–III–v arpeggiation.

The work consists of many more phrases, some of which are in keys other than the ones mentioned here, and there is a modulating variant of the ground other than that provided in Example 2.16b. However, the passage presented in Example 2.15 and the form diagram in Example 2.18 sufficiently demonstrates the idea: with only slight modifications to the end of a

ground, it is possible to modulate that ground into different keys while maintaining both the character of the particular ground as well as the repetitive character of the ground-bass genre.

Transference of the Ground: Bach Jesu Meine Steele

The final technique that will be discussed in this chapter is that of ground *transference*—after being established in the bass, the ground may be *transferred* to an upper voice over a freely-composed bass line. The beginning of Bach's Cantata "Jesu Meine Steele" (BWV 78) demonstrates this principle. Bach uses a descending chromatic tetrachord for the ground bass of this passage.

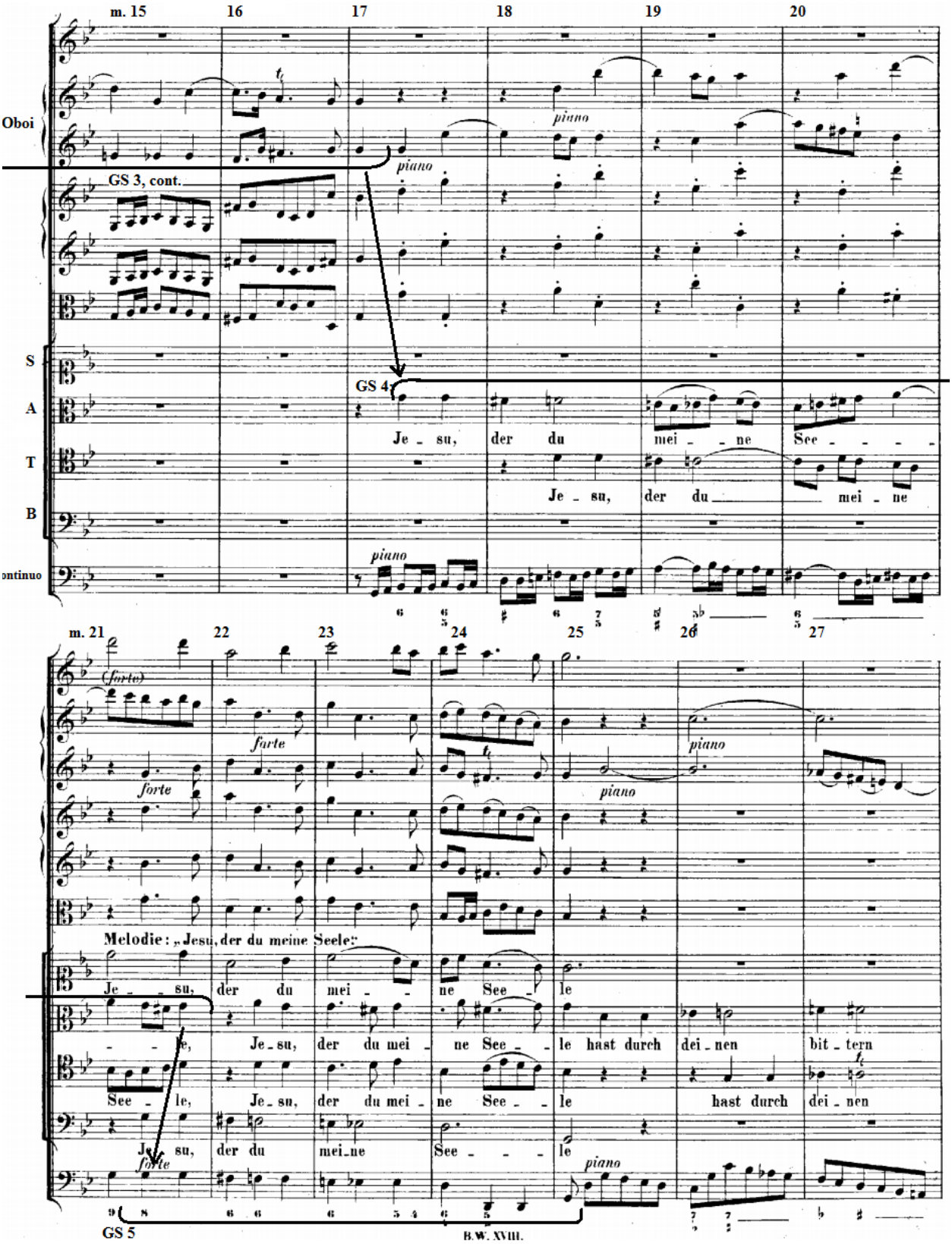


Example 2.19. Ground for "Jesu Meine Steele"

The four-measure simple ground in Example 2.19 is nearly identical to the first four measures of the ground used in "When I am Laid in Earth" (see Example 1.4a). Because of the registral difference between the G_2 on m. 1:1 and G_3 in mm. 1:2–3, it is likely that the ground by itself would be interpreted as sectional (as indicated by the grouping brackets above the staff); however, even on its own it is not impossible to hear it as overlapping (as indicated by the grouping bracket below the staff). In the work itself, Bach usually begins phrases with G_3 on beat 2. Consider mm. 17–25 of "Jesu Meine Steele," which consists of two phrases that coincide with the fourth and fifth statements of the ground, respectively.

Example 2.20. "Jesu Meine Steele," BWV 78, mm. 17–25

The first two ground statements (not shown) occurred in the *basso continuo*, thereby establishing the ground-bass pattern, and the third (also not shown) was *transferred* to the oboe.



Example 2.20. “Jesu Meine Steele,” BWV 78, mm. 17–25

The fourth ground statement of the work begins in m. 17 in the alto (see Example 2.20). The transference of the ground away from the bass allows for a new freely-composed bass line. In the case of mm. 17–21, the new bass line ascends stepwise in contrast to the descending-stepwise ground. Furthermore, the harmonies are not as restricted as when the ground is in the bass. The ground returns to the bass in mm. 21–25 and resumes the i–v_6–iv_6–V–i harmonic progression that usually accompanies the descending tetrachord.

Conclusion

This chapter has presented examples of the many types of non-variation phrase structures that may arise in a ground-bass composition. The simplest of these occurs when the final cadence is changed from ending on $\hat{5}$ to ending on $\hat{1}$, or vice versa, as in Example 2.5. Furthermore, while the melodic content of these phrase-pairs may be similar they may also be strikingly different, as were Examples 2.6, 2.7, 2.9, and 2.11. Perhaps more interesting are phrases that do not coincide with the ground and their interactions with the statements of the ground and each other. These phrases are not as neatly categorized as phrases that do coincide with the ground, but they also have a greater potential to create more interesting phrase structures, as in Examples 2.13 and 2.14. Finally, grounds may be transposed to different tonal levels or transferred to the upper voices, as in Examples 2.17 and 2.20.

The smaller phrase structures discussed in this chapter may be thought of as building blocks for a larger form. For this reason, the existence of such a variety of possibilities for phrase organization over a repetitive bass implies the potential for a variety of larger formal organization in such works. The following chapter will consider two representative works as case studies for this very principle.

CHAPTER 3

ANALYSIS OF FORM

Chapters 1 and 2 provided a foundation for the analysis of form of ground-bass compositions in what Rothstein calls "the larger aspect" of form: "the organization and division of [a work's] structure into definite sections, and the relation of those sections to each other" (Rothstein 1989, 104). In Chapter 1, I discussed ways in which grounds may be analyzed and categorized as well as how voices may be composed over individual ground statements to form phrases. In Chapter 2, I examined a variety of different phrase structures that may arise from multiple phrases over the statements of the ground. In this chapter, I will apply the principles from the first two chapters to two ground-bass works that exhibit non-variation formal organizations: "When I am Laid in Earth" by Henry Purcell and "Jerusalem, convertere ad dominum deum tuum." the Leçons de Ténèbres by Michel Richard Delalande.

"When I am Laid in Earth"

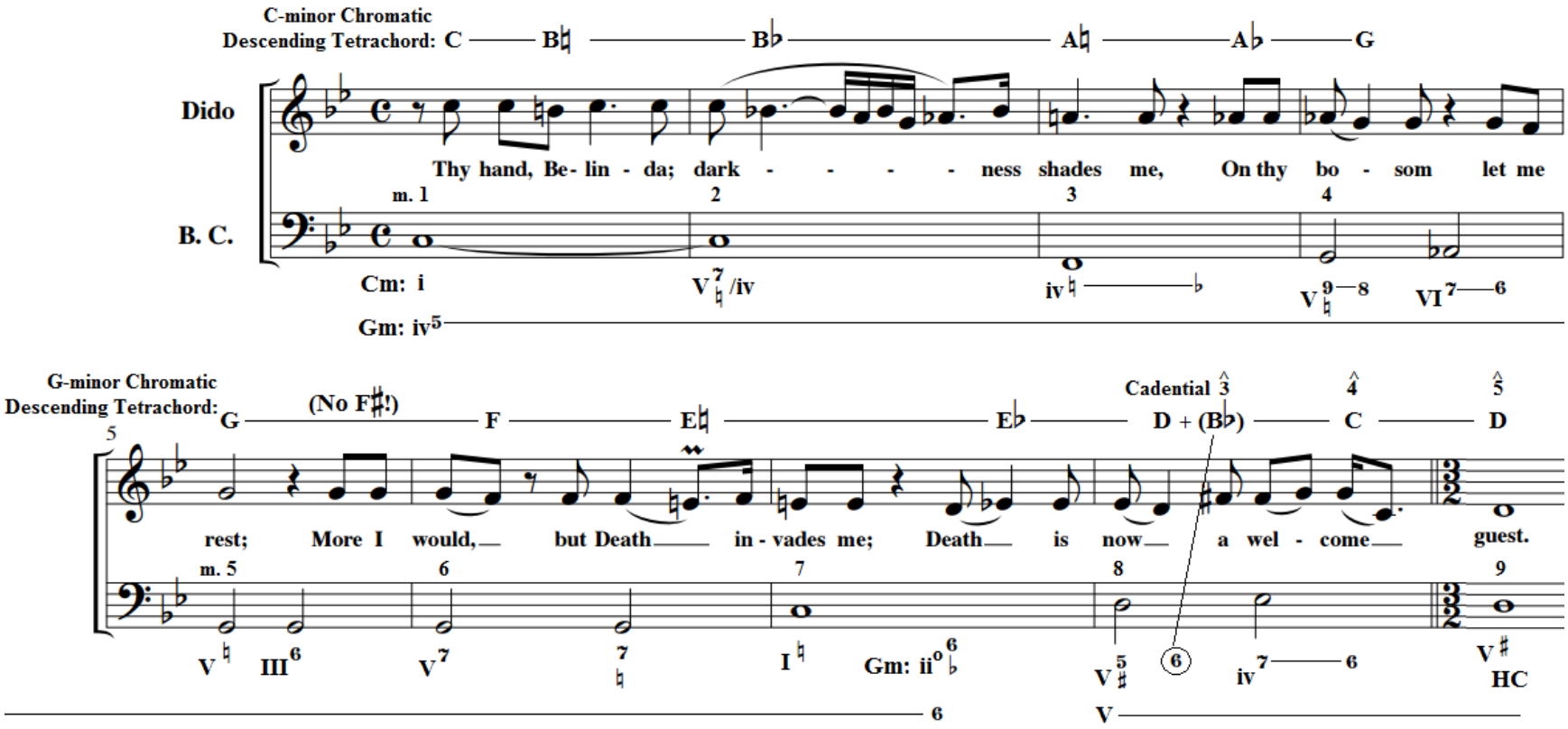
The lament "When I am Laid in Earth" (score provided in the Appendix) from Purcell's Dido and Aeneas is an excellent example of how the upper voices of a ground-bass composition can form remarkably different phrases with the statements of the ground and how these phrases together create a binary form. The vocal phrases from the aria were examined in Chapter 2. The first two phrases (Examples 2.9 and 2.11) were examples of two phrases that coincided with the ground that together formed a strong-weak period. The third and fourth phrases (Example 2.13) provided an example of two phrases that did not coincide with the ground that together formed a weak-strong period. All four phrases were shown to have strikingly different melodic content and function within their respective period structures. Two sections remain to be examined

before considering the larger form of the work: the opening recitativo secco (mm. 1–9) and the instrumental coda (mm. 55–64).

Recitativo Secco, mm. 1–9

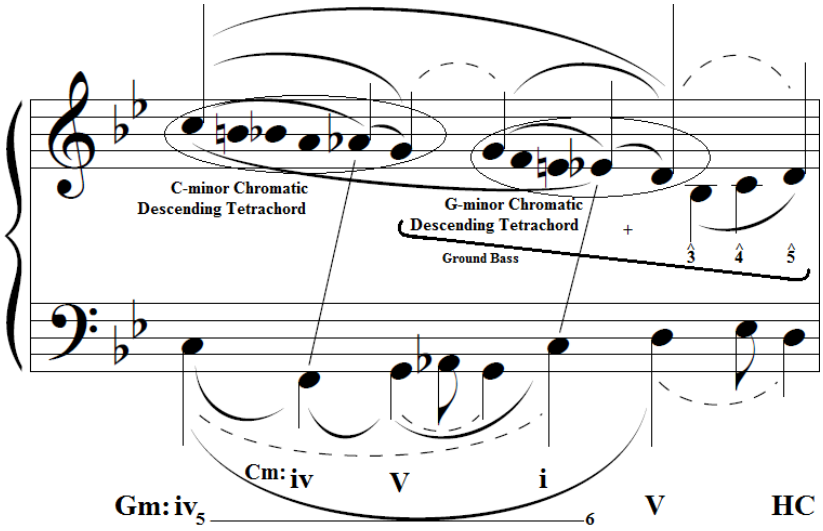
While the ground does not start until m. 9:3, the vocal line in the preceding recitativo (Example 3.1) contains a chromatic descending tetrachord in both C minor (mm. 1–5) and G minor (mm. 5–8). By the mid-seventeenth century, the descending minor tetrachord had become associated with the lament genre—a *topos* with origins as far back as the drama of Greek antiquity that "enjoyed a special status; an emotional climax followed by a resolution of the action, it was a soliloquy, a moment of particularly intense expression within the movement of a narrative structure" (Rosand 1979, 346). The chromatic version of the descending minor tetrachord pervades the work, beginning with the two in the vocal line in the *recitativo* and continuing in the ground bass. Although F♯ is absent from the descent, the G-minor tetrachord (mm. 5–8) is of particular interest to the musical design of the work because—although not yet in the bass—it is the first part of what will very shortly become the ground. When the continuo's B♭ (indicated by the figured bass in m. 8) is taken into account, there is a clear B♭–C–D line present immediately after the G-minor tetrachord. Therefore, a precursor to the ground-bass melody (descending tetrachord + $\hat{3}$–$\hat{4}$–$\hat{5}$–$\hat{1}$ cadential progression) makes a kind of introductory appearance in the treble of the recitative in these measures (mm. 5–9).

Although the previous section in the opera ended with a PAC in G minor, the beginning of the lament until as late as m. 7 seems to have a clear tonal center on C. The first definitive



Example 3.1. “When I am Laid in Earth,” mm. 1–9

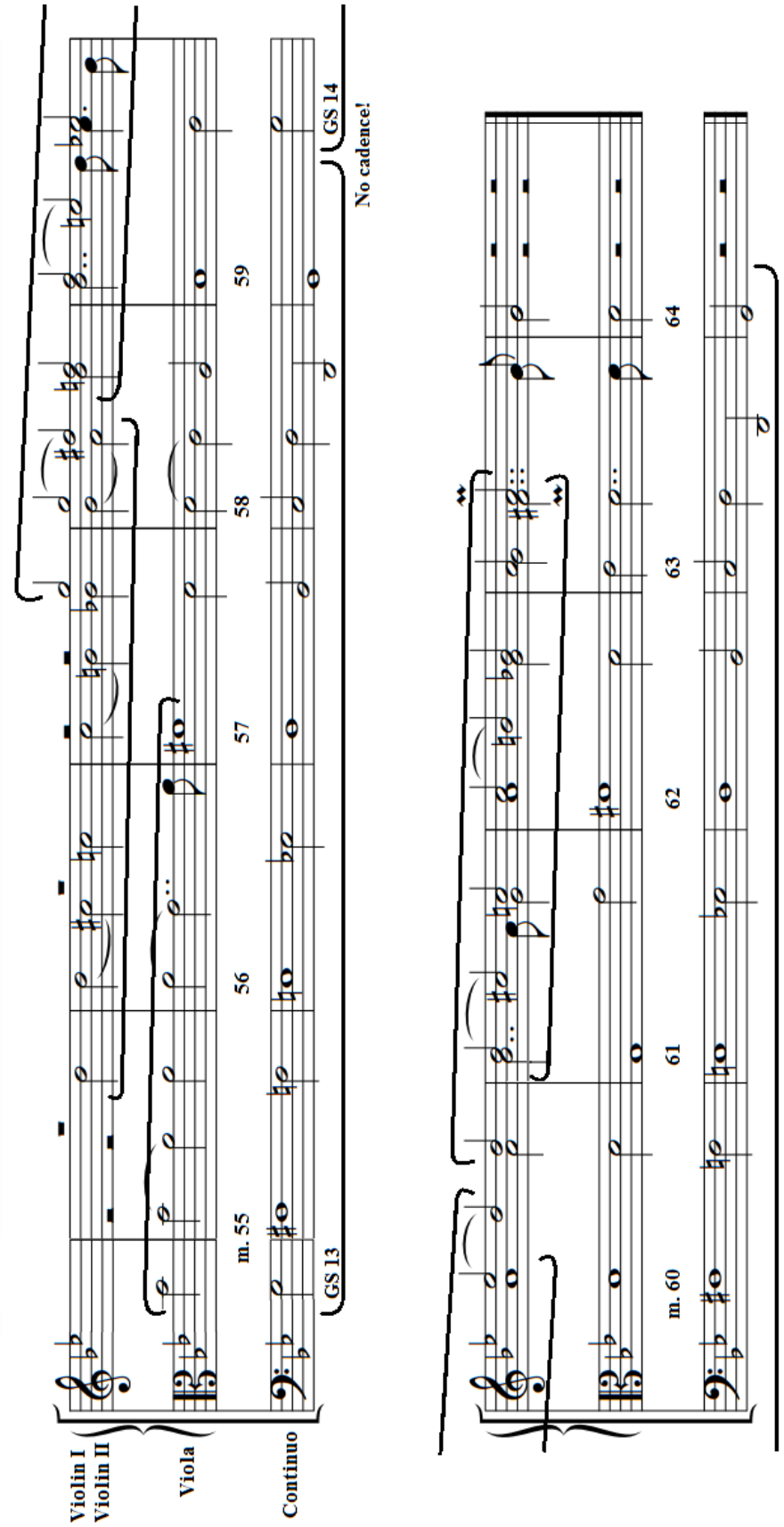
move to G minor occurs with the ii°$_6$–V in mm. 7–8. In the context of the work as a whole, the deeper harmonic motion is iv$^{5–6}$–V with a HC in G minor (see Example 3.2).



Example 3.2. "When I am Laid in Earth," mm. 1–9 (middleground)

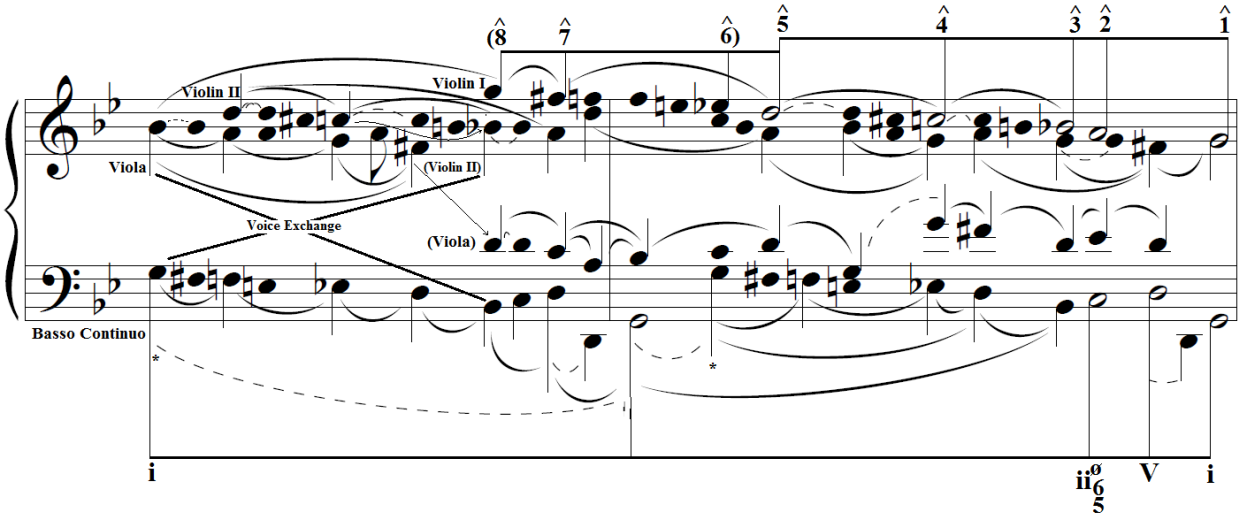
Coda, mm. 55–64

The structural close of the work occurs at the PAC at the end of Phrase 4 (Example 2.13, m. 54) with the conclusion of the vocal line and libretto. The strings, however, continue over two final ground statements (Example 3.3). Musically, this passage may be understood as a coda; however, it functions in a more important way in the opera's drama. In the opening recitativo, Dido—betrayed by her love, Aeneas—sings "…Death invades me; Death is now a welcome guest" set to the G-minor chromatic descending tetrachord. Following her welcome of death, the ground begins. After her aria, which concludes with "Remember me! But ah—forget my fate [her death]," she commits suicide. The strings, which play descending tetrachords in stretto, represent the death of Dido.



Example 3.3. "When I am Laid in Earth," mm. 55–64

The violins and viola contain no fewer than six overlapping descending tetrachords, indicated by the brackets in Example 3.3; in fact, only the viola line from mm. 57:3 onward consists of material that is not a part of a descending tetrachord line. The saturation of the musical texture with descending tetrachords over the descending tetrachord ground represents despair surrounding the death of Dido. Three of the descending tetrachords are from D–A (mm. 55:3ff., 58:3ff., and 60:3ff.), two from B♭–F♯ (mm. 54:3ff. and 60:3ff.), and one from G–D (mm. 57ff.). The musical structure effected by these descending tetrachords is given in Example 3.4.



Example 3.4. "When I am Laid in Earth," mm. 55–64 (graph)

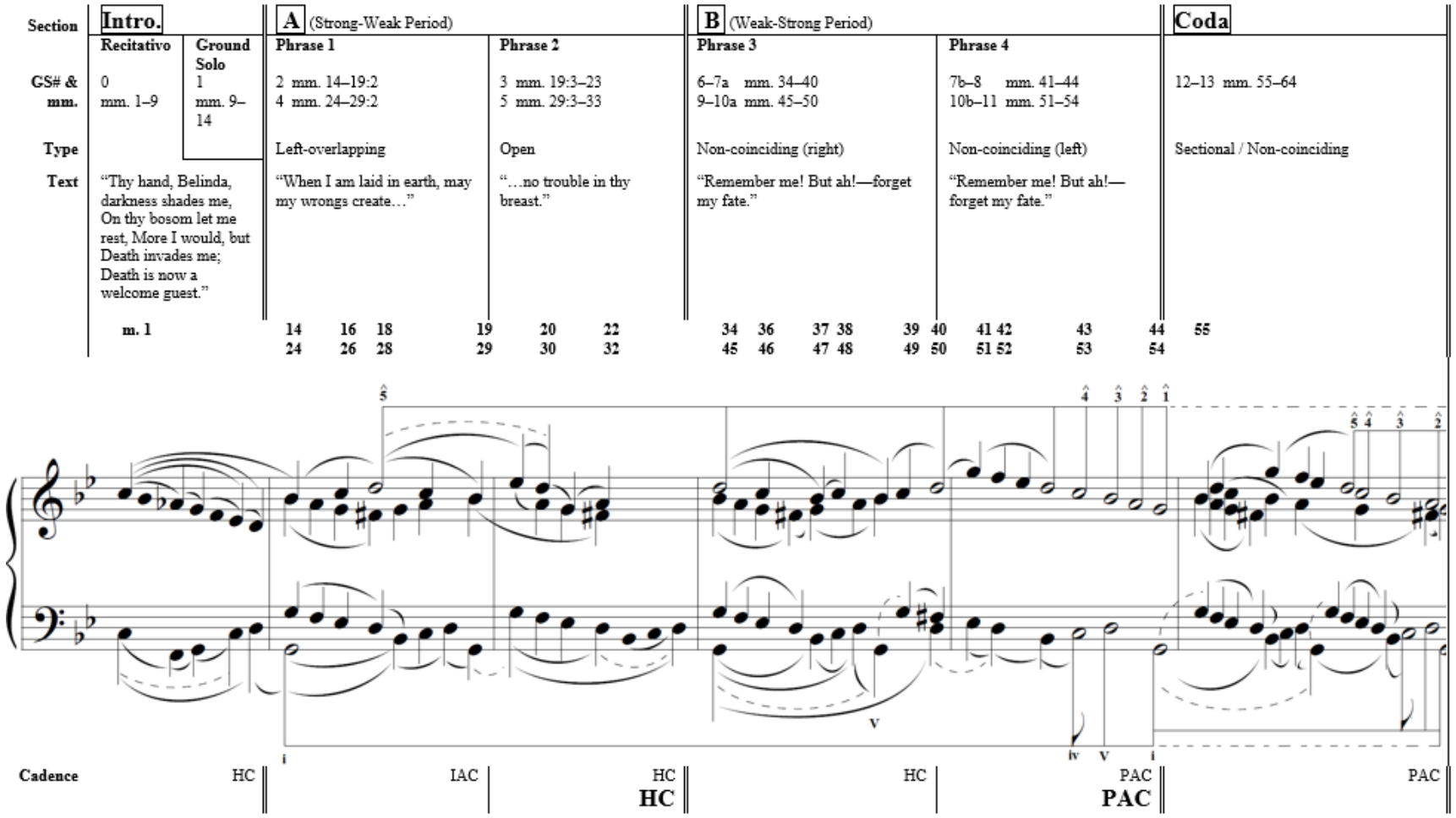
The first three descending tetrachords begin on 1) B♭4 (Viola, m. 54:3) over the ground's initial G; 2) D5 (Violin II, m. 55:3) over the ground's F ♮5 (Violin I, m. 57:3) over the ground's B♭. These three pitches create both an arpeggiation to 8̂ (G5) on the downbeat of m. 57 and also a B♭/G voice exchange with the ground bass. That 8̂ begins an octave stepwise descent (usually filled in chromatically) to 1̂ (PAC) that parallels the final cadence of the work from Phrase 4 (Example 2.13, mm. 51–54), which also consisted of a stepwise octave descent from 8̂ (not filled in chromatically). However, the structure is also notably different from Phrase 4. First,

this final phrase (mm. 55–64) spans two entire statements of the ground. Because the Violin I melody is right in the middle of its descending tetrachord from G–D in mm. 58–59, there is no cadence; instead, there is a constant drive downward from the overlapping descending tetrachords, which ends only when $\hat{1}$ is reached in m. 64. Secondly, the descending octave line from $\hat{8}$–$\hat{1}$ in mm. 57:3–64 is set over completely different notes of the ground than the descending octave line in Phrase 4 (cf. Example 2.13).

The effect of the overlapping tetrachords—while beautiful—is disorienting; throughout the work, the descending tetrachord bass has represented despair, and so the stretto effect is like piling despair upon despair. It is not until m. 62 with the arrival of the i_6 harmony that we finally regain our harmonic orientation. Therefore, while the evasion of the expected cadence in m. 59 is masterfully done, the resulting aesthetic is brilliantly depressing.

Overall Form

"When I am Laid in Earth" consists of an opening recitativo (mm. 1–9), an initial solo statement of the ground (mm. 9–14), a strong-weak period (mm. 14–23, repeated in mm. 24–33), a weak-strong period (mm. 34–44, repeated in mm. 45–54), and an instrumental coda (mm. 55–64). As illustrated in Example 3.5, the two periods that form the vocal part of the aria are labeled A and B, respectively. These two periods together form an even larger weak-strong composite period: the first constituent period consists of an initial ascent to $\hat{5}$ and ends with a HC, and the second constituent period consists of the 5-line descent to $\hat{1}$ and ends with a PAC.



Example 3.5. Form Diagram and Middleground Graph of "When I am Laid in Earth"

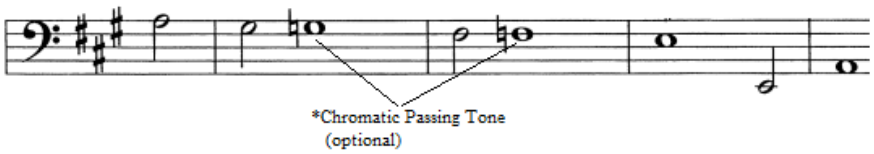
Excluding the repetitions of A and B, “When I am Laid in Earth” (mm. 9–54) consists of six phrases (including the initial solo ground statement and coda) over eight statements of the ground bass. Each of these six phrases interacts with the ground is fundamentally different ways, both in terms of where the phrases begin and end in relation to the ground, and how they melodically counterpoint the ground. The first phrase of the A section overlaps with the initial solo statement of the ground, provides an initial B♭–C–D ascent, and ends with an IAC. The second phrase of the A section is non-overlapping, consists of the E♭–D portion of the neighbor motion D–E♭–D and the subsequent inner voice motion G–A, and ends with a HC. The first phrase of the B section is also non-overlapping, but ends in the middle of the following ground statement with a HC. The second phrase of the B section begins in the middle of that same ground statement and provides a descent from a climatic G_5 ($\hat{8}$) down to G_4 ($\hat{1}$) for the structural PAC of the work. Finally, the coda is sectional—neither overlapping nor ending on a HC—but consists of one phrase that coincides with two statements of the ground.

The result is a large-scale form that is independent of the phrase structure created by the ground alone. Purcell accomplishes this by using techniques discussed in Chapters 1 and 2 such as 1) variably interpreting the ground as sectional, overlapping, or open for phrases that coincide with the ground, 2) composing phrases that do not coincide with the ground, such as the phrases in the B section and coda, and 3) providing different contrapuntal lines to the ground, such as the B♭–C–D initial ascent in Phrase 1 and the *Urlinie* descent in Phrase 4.

“Convertere ad Dominum Deum”

A remarkable treatment of the ground bass is found within Michel Richard Delalande’s Leçons de ténèbres—a French Baroque genre that consists of a solo chamber setting of the

Lamentations of Jeremiah, which is usually performed for the Tenebrae services on the Thursday, Friday, and Saturday before Easter. While a typical Leçons de ténèbres provides a musical setting for all three Lamentations of Jeremiah, Delalande's only includes the third, and it is the concluding text "Jerusalem, convertere ad Dominum Deum tuum" that he sets to a ground bass. In the work, Delalande treats "Jerusalem" and "convertere ad Dominum Deum tuum" each as their own lyrical unit, and it will be demonstrated that the work's three-part musical form is supported by the initial placement, repetition, and reprises of these two blocks of text.

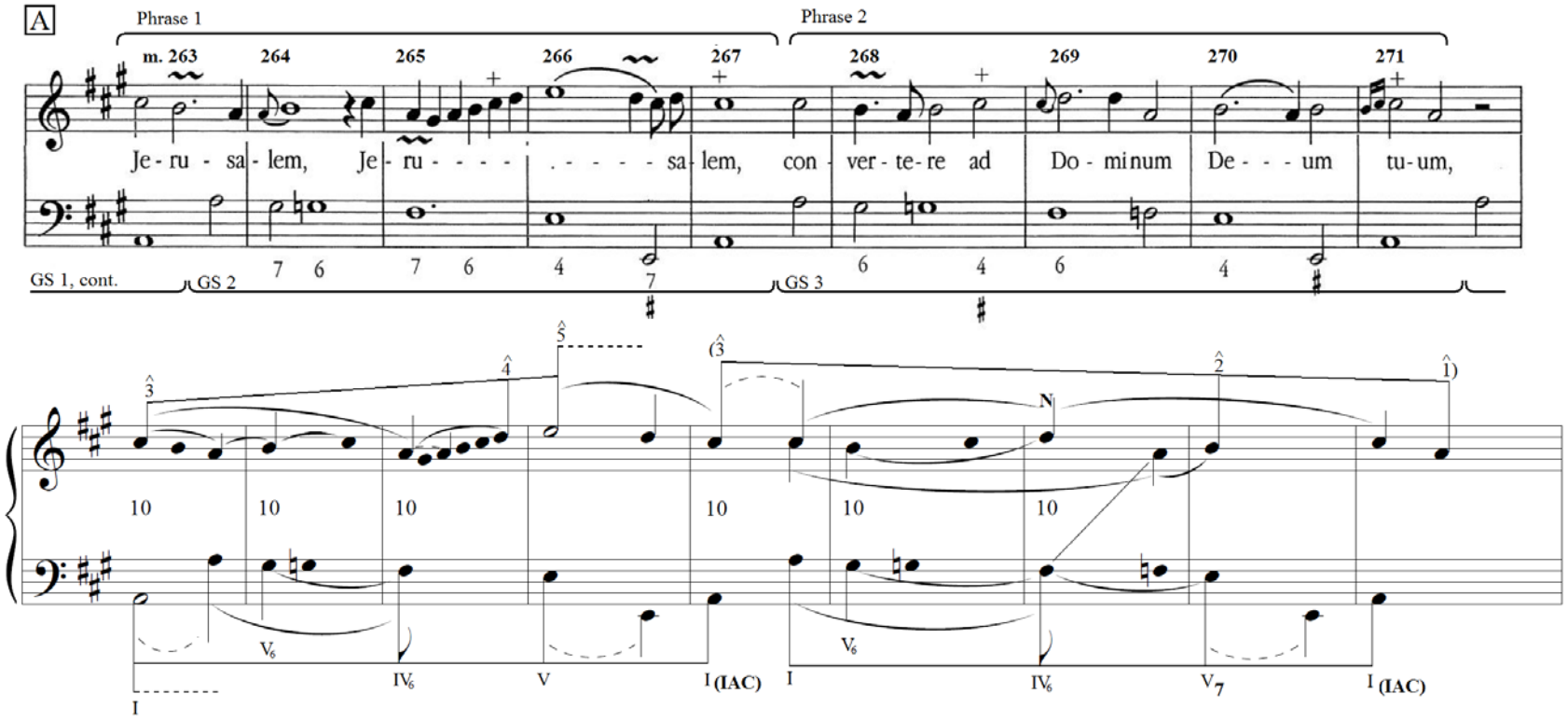


Example 3.6. Ground Bass of "Jerusalem, Convertere ad dominum Deum tuum."

Delalande begins with a single solo statement of the descending tetrachord ground. In some statements (but not in others), Delalande embellishes the ground with chromatic passing tones, as illustrated in Example 3.1, and it will be shown that this flexible use of passing tones in the ground further aids in the facilitation of a three-part form.

A Section

The first section of the work (Example 3.2, mm. 263–71) provides the initial statement of the entire text. The vocalist begins over the final note of the first ground statement (GS1) with the word "Jerusalem," which is stated twice in the first phrase. The first time (mm. 263–64), "Jerusalem" is set to a motion from C♯ (m. 263) to B (m. 264), which begins a third progression from C♯ to A in parallel tenths with the first three notes of the ground. The repetition of "Jerusalem" (mm. 265–267) first provides the end of that third progression with the A in m. 265, and then proceeds stepwise up to the E ($\hat{5}$) in m. 266. This E is both the climax of the phrase and



Example 3.7. “Jerusalem, Convertere ad dominum Deum tuum,” A section, mm. 263–71

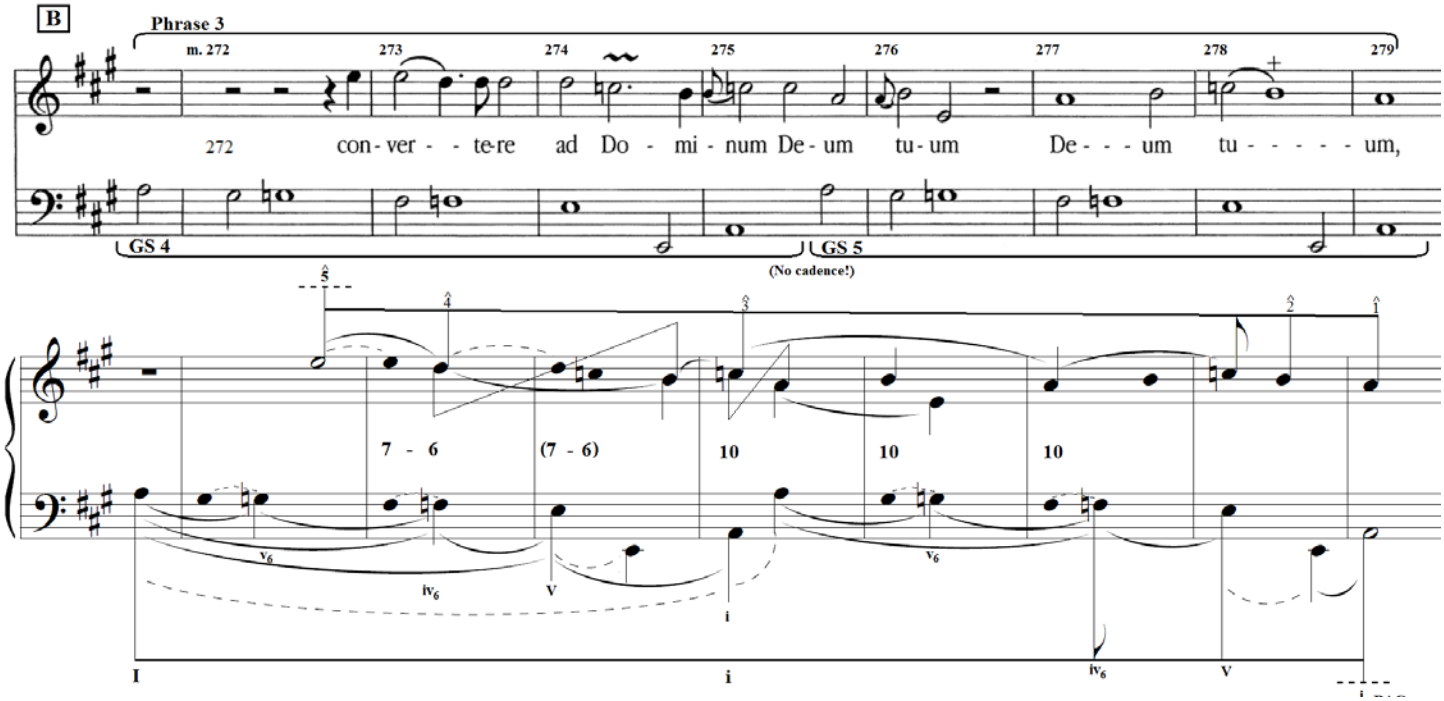
the Kopfton for the work. The phrase concludes with the third progression E–D–C♯ over V–I for an IAC (mm. 266–67).

The second phrase (mm. 268–71) completes the text with “convertere ad Dominum Deum tuum” (“Return to the Lord your God”). While the beginning of the first phrase overlaps with the final $\hat{1}$ of the first ground statement (GS1), the second phrase is non-overlapping and begins on m. 267:3 with the initial $\hat{1}$ of the third ground statement (GS3). Like the first phrase, the second contains the descending line in parallel tenths with the descending tetrachord bass, but there are also two melodic motions that were not found in the first phrase (Example 3.7 graph, mm. 267–271): 1) the C♯–D–C♯ neighboring motion and 2) the $\hat{3}$–$\hat{2}$–$\hat{1}$ (C♯–B–A) third-progression. While the C♯ escape tone at the end of m. 264 is of relatively little structural importance, the corresponding C♯ at the end of m. 268 receives a stronger metrical position, a longer note value, and is harmonized with a secondary dominant to IV. Although only a passing tone from B to D, it is a structurally important one since it gives weight to the D in m. 269. That D is prolonged through m. 270, becoming the seventh of V_7, and resolves to the C♯ in m. 271, thereby completing the C♯–D–C♯ neighboring motion.

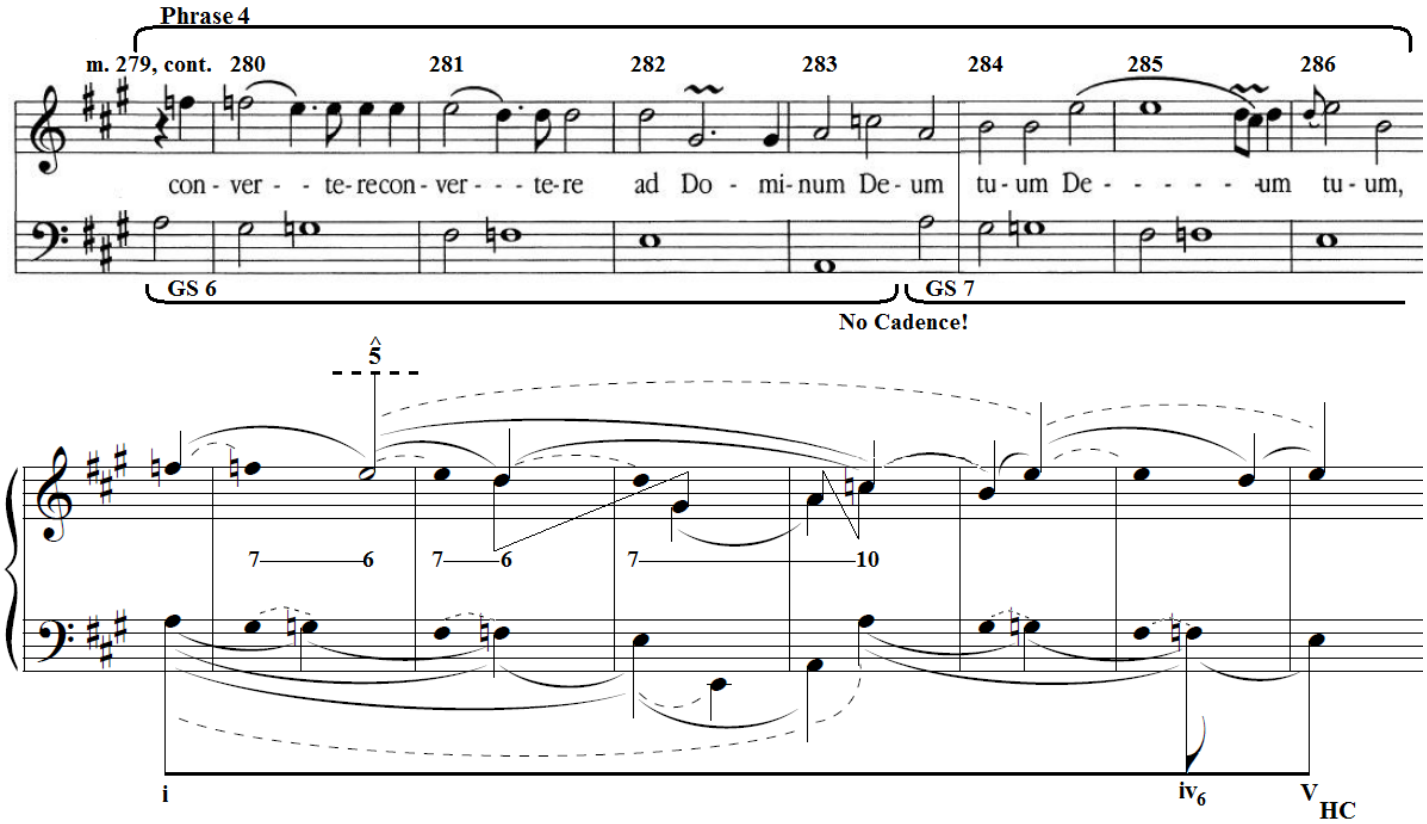
The other important line in this phrase is the third-progression $\hat{3}$–$\hat{2}$–$\hat{1}$, which is completed by the B in m. 270 and A in m. 271. Because of the C♯, the AC is imperfect. However, the final A provides a definite sense of closure, especially as the conclusion of the $\hat{3}$–$\hat{2}$–$\hat{1}$ third-progression. Even though Phrase 1 and Phrase 2 end with IAC’s, the second IAC is definitely stronger than the first, and therefore these two phrases form a weak-strong period.

B Section

The second section of the work consists of two phrases that each repeat the plea "convertere ad Dominum Deum tuum" over two statements of the ground and together form a weak-strong period. Although the vocal line in Phrase 3 (Example 3.8) does not coincide with the ground—as it does not begin until the very end of m. 272—the phrase itself properly begins with the first note of the ground on m. 271:3; however, Phrase 3 does not coincide with the end of that ground statement (GS4). The expected cadence in m. 275 is subverted in two ways. First, the melodic motion is immediately in progress from that C♮ to the following B in m. 276. Second, it is placed in the middle of a lyrical phrase, ending on the word "Dominum." The lyrical phrase ends subsequently with "Deum tuum," at which point there is a pause on the minor dominant (v6) in m. 276. This may be considered a half cadence if not for the G♮ in the bass and what follows in mm. 277–79: the final part of the text "Deum tuum" is repeated, set to a $\hat{2}$–$\hat{1}$ motion over a (iv_6–V)–i cadential progression that ends the phrase with a PAC. The C♮ in m. 274



Example 3.8. "Jerusalem, convertere ad dominum Deum tuum," Phrase 3, mm. 272–79



Example 3.9. "Jerusalem, Convertere ad dominum Deum tuum," Phrase 4, mm. 280–86

marks the shift to the minor mode, which Delalande achieves by reinterpreting the G♯ and F♯ of the ground as passing tones and G♮ and F♮ as the main tones. The main motion of Phrase 3, which occurs over two statements of the ground, is a 5-line in the minor mode from Kopfton E to the A in m. 279 for a PAC in A minor.

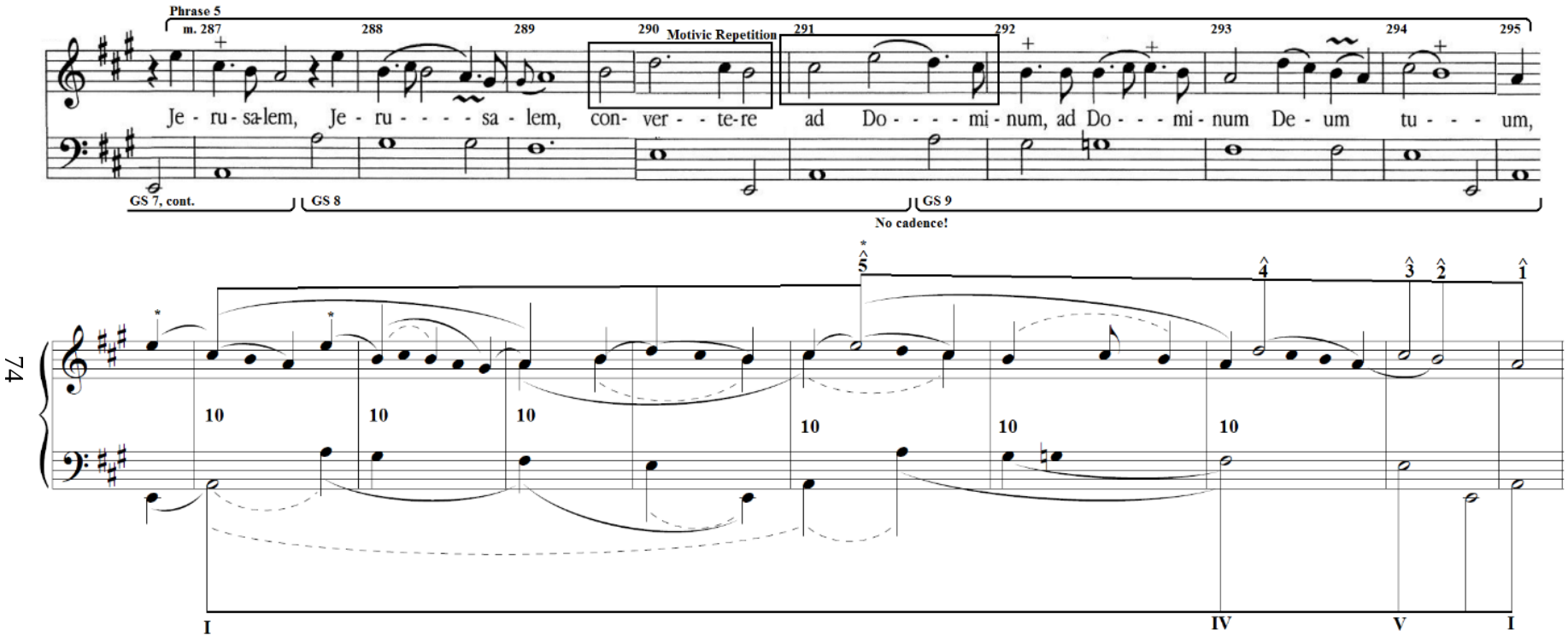
The second phrase of the B section, Phrase 4 (Example 3.9), begins with the sixth statement of the ground. While the voice in Phrase 3 did not enter until one measure following the start of the ground, the voice in Phrase 4 begins right away with the ground with the same 7–6 suspensions from Phrase 3. Now, however, the chain of 7–6 suspensions begin with F♮–E (mm. 279–80), which causes the plea "convertere ad Dominum Deum tuum" to sound even more desperate. While the following E–D suspension figure (mm. 280–81) is identical to the one in the previous phrase (mm. 273–274), the melodic content in mm. 282–286 diverges from the previous phrase. However, the cadence implied by the ground in m. 283 is still evaded in a fashion similar

to the previous phrase: both the melodic motion from C♮ to B (mm. 283–284) and the lyrical phrase are in progress over the would-be cadence implied by the ground. While that B in m. 284 ends the phrase of text, the following repetition of "Deum tuum" ends the phrase with a HC (m. 286). Phrase 3 (Example 3.8) and Phrase 4 (Example 3.9) together form a strong-weak parallel period. They form a unit not only due their similarity in melodic material, but also in their use of the minor mode.[22]

C Section

The work concludes with a single phrase (Example 3.10) in A major that—like Phrases 3 and 4—takes up two ground statements. The text begins again with two statements of "Jerusalem" (mm. 287–89), to which the singer embellishes a descending line in parallel tenths with the first three notes of the ground (A–G♯–F♯). This is followed by an ascending line to the E on m. 291:2 from the C♯ in m. 287 to the text "convertere ad Dominum" (mm. 289:3–392:1). While the ground by itself implies a cadence in m. 291, the upper voices—as with the previous two phrases—do not realize one. The melody in mm. 289:3–290:3 form a motivic unit that begins with a leap up a third, which is then filled in by step. The recurrence of that motive in m. 291—in which the cadence would occur—decisively evades the cadence, since the vocal line is in the middle of an idea (motivic repetition). The final C♯ of that motive begins another

[22] Dr. Timothy Jackson, Professor of Music Theory at the University of North Texas, holds an alternate interpretation, which can be summarized as follows. Phrase 3 composes out the fourth-progression E (m. 273) – D (m. 274) – C (m. 275) – B (m. 276) over a prolonged minor dominant. The strong A minor chords in mm. 275 and 279 are then considered to be iv of E minor. Phrase 4 similarly composes out a tritone-progression, F (m. 279) – E (m. 281) – D (m. 282) – C (m. 283) – B (m. 284), still over a prolonged minor dominant. Furthermore, the F in m. 279 resolves not to the E in m. 281, but rather to the E in m. 285. The result is a two-phrase-long prolongation of the dominant.



Example 3.10. “Jerusalem, Convertere ad dominum Deum tuum,” Phrase 5, mm. 287–95

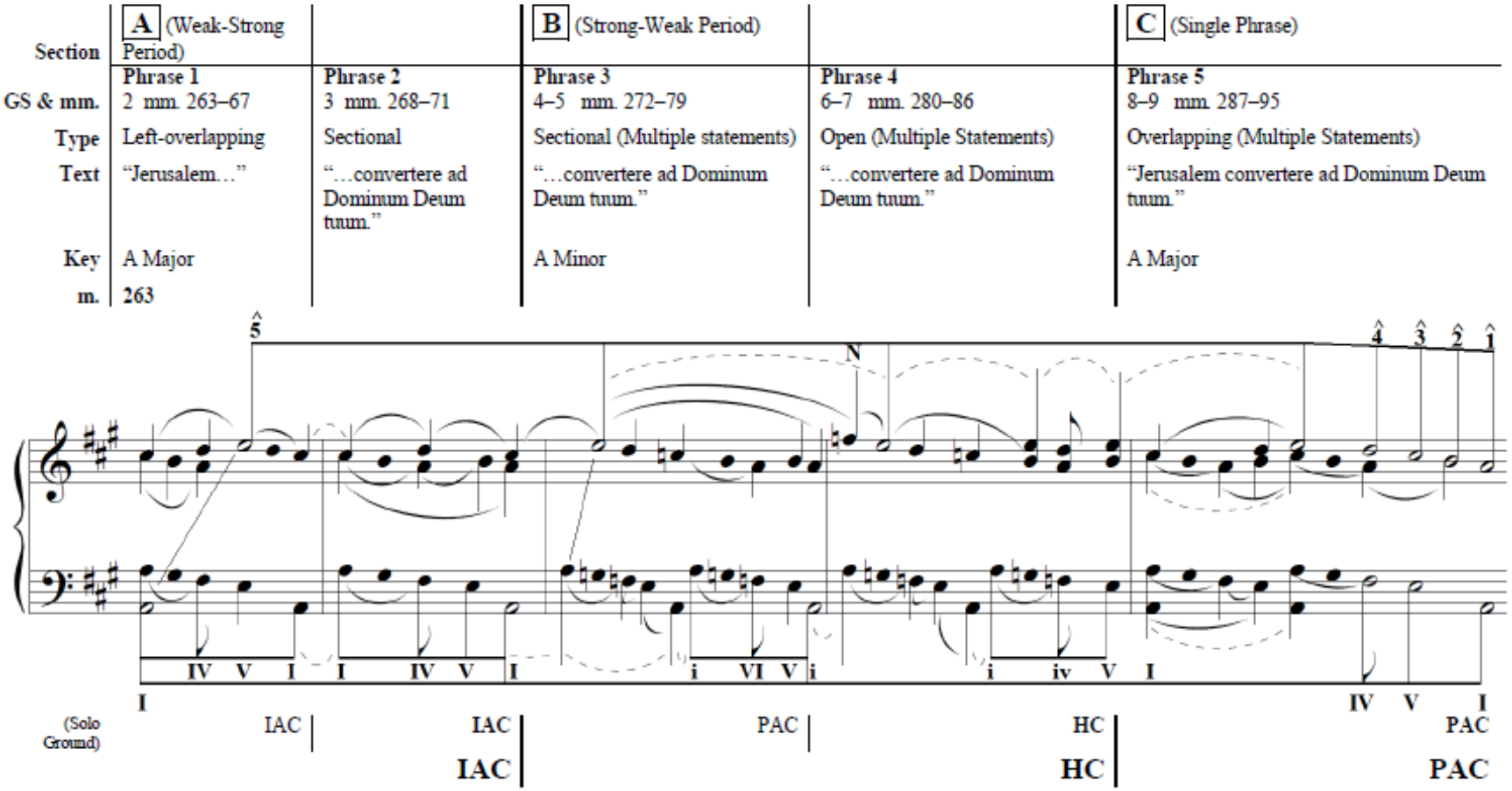
contrapuntal line bass in parallel tenths with the A–G♯–F♯ bass line (mm. 291–293). Finally, the phrase concludes with the *Urlinie* descent to $\hat{1}$ in mm. 293–295) for the structural PAC of the work.

The main motion of the phrase consists of an ascent to $\hat{5}$ (mm. 287–291) followed by the final descent to $\hat{1}$ (mm. 291–295). Phrase 5 is the third example in this work of a phrase that spans two statements of the ground bass; in each case, the vocal line simply continues on past the cadential point implied by the ground.

Overall Form

As shown in Example 3.11, Delalande's Leçons de Tenebrae may be divided into three sections, labeled A, B, and C, respectively. The beginning of first phrase of the A section (Phrase 1) overlaps with the final note of the initial ground statement (GS1) and provides the initial ascent to $\hat{5}$. The second phrase of the A section (Phrase 2) is sectional and ends with a stronger IAC than the first. The two phrases of the A section form a weak-strong period that ends with an IAC. The first phrase of the B section (Phrase 3) spans two ground statements, shifts to the minor mode, consists of a 5-line descent in minor from $\hat{5}$ to $\hat{1}$, and ends with a PAC. The second phrase of the B section (Phrase 4)—which also spans two ground statements—begins with neighbor note F♮ and the same stepwise descent from the previous phrase, but then ends with a HC. Therefore, the two phrases of the B section form a strong-weak period that ends with a HC. Finally, the C section consists of a single phrase (Phrase 5) in the major mode that spans two ground statement and provides the final descent to $\hat{1}$ for the structural PAC of the work.

The result is a three-part large-scale form, which is relatively independent of the ground bass. Like Purcell, Delalande accomplishes this by using the techniques discussed in Chapters 1



Example 3.11. "Jerusalem, Convertere ad dominum Deum tuum," form diagram with graph

and 2. Phrases that coincide with the ground—or multiple statements of the ground—are variably interpreted as sectional (Phrases 2 and 3), overlapping (Phrases 1 and 5), or open (Phrase 4). Furthermore, Delalande uses different melodic lines to counterpoint the ground—unlike the situation were it a theme and variations—such as the initial ascent C♯–D–E in Phrase 1, the fifth progression in minor in Phrase 3, and the *Urlinie* descent in Phrase 5.

Conclusion

This chapter has provided analyses based on the principles outlined in the first two chapters of two ground-bass works that are not in variation form. Many more exist—*O Solitude* (Purcell), "Be Welcome Then, Great Sir" from *Fly, Bold Rebellion* (Purcell), and "Recordare est" from Couperin's Leçons de Ténèbres, to name a few. A preeminent example of non-variation form in the ground-bass literature is Bach's "Weinen, Klagen, Sorgen, Zagen" from the Cantata of the same name (BWV 12), on which he based the "Crucifixus" from his Mass in B minor.[23]

[23] This movement of the B minor Mass has been analyzed by René Pérez Torres in detail (2005, 53–65) and is—along with the other works mentioned—worth study.

CONCLUSION

In this thesis, I have sought to demonstrate the various ways in which ground-bass works achieve non-variation[24] formal organizations. In the first chapter, I began by considering possible ways to analyze and categorize ground basses. By itself, a ground bass is monophonic phrase that ends on either $\hat{5}$ with an implied HC or $\hat{1}$ with an implied AC. However, it is not always certain without further context whether a ground ends on $\hat{5}$ or $\hat{1}$—a feature of certain grounds that I have termed *ambiguity*. Furthermore, a ground may be *simple*—implying a single phrase—or *compound*—implying multiple phrases. Following this discussion on the analysis of grounds *per se*, I examined ways in which upper voices are composed over the statements of the ground to form individual phrases that either 1) *coincide* with the structure of the ground or 2) contradict that structure in some way. Phrases that coincide with the ground start with the beginning of a ground statement and likewise end with the ending of the same ground statement. Phrases that coincide with the ground are *sectional* (non-overlapping and ending with the ground's final $\hat{1}$), *open* (ending with the ground's final $\hat{5}$), or *overlapping* (beginning with the final $\hat{1}$ of the previous ground statement or ending with the initial $\hat{1}$ of the following ground statement). A more fascinating phenomenon, however, occurs when phrases that do not coincide with the ground. Although not as neatly categorized, a phrase may contradict the structure of the ground by any combination of 1) beginning in the middle of the ground, 2) cadencing in the middle of the ground, and 3) spanning multiple statements of the ground.

In the second chapter, I examined various kinds of phrase structures that arise from the interaction of multiple phrases with the repetitious statements of the ground. In variation

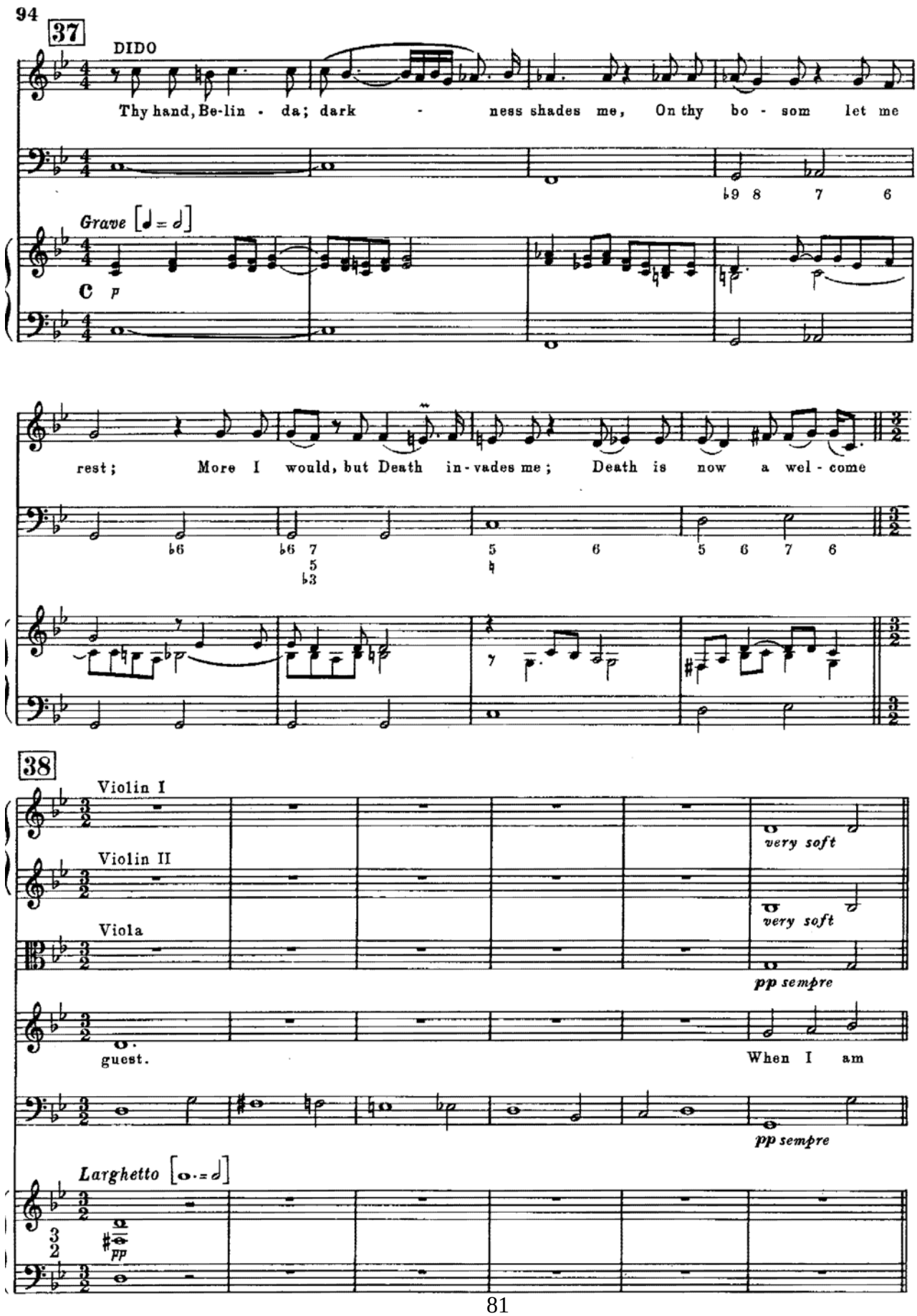
[24] Variation form is defined in the Introduction (pp. 7–8).

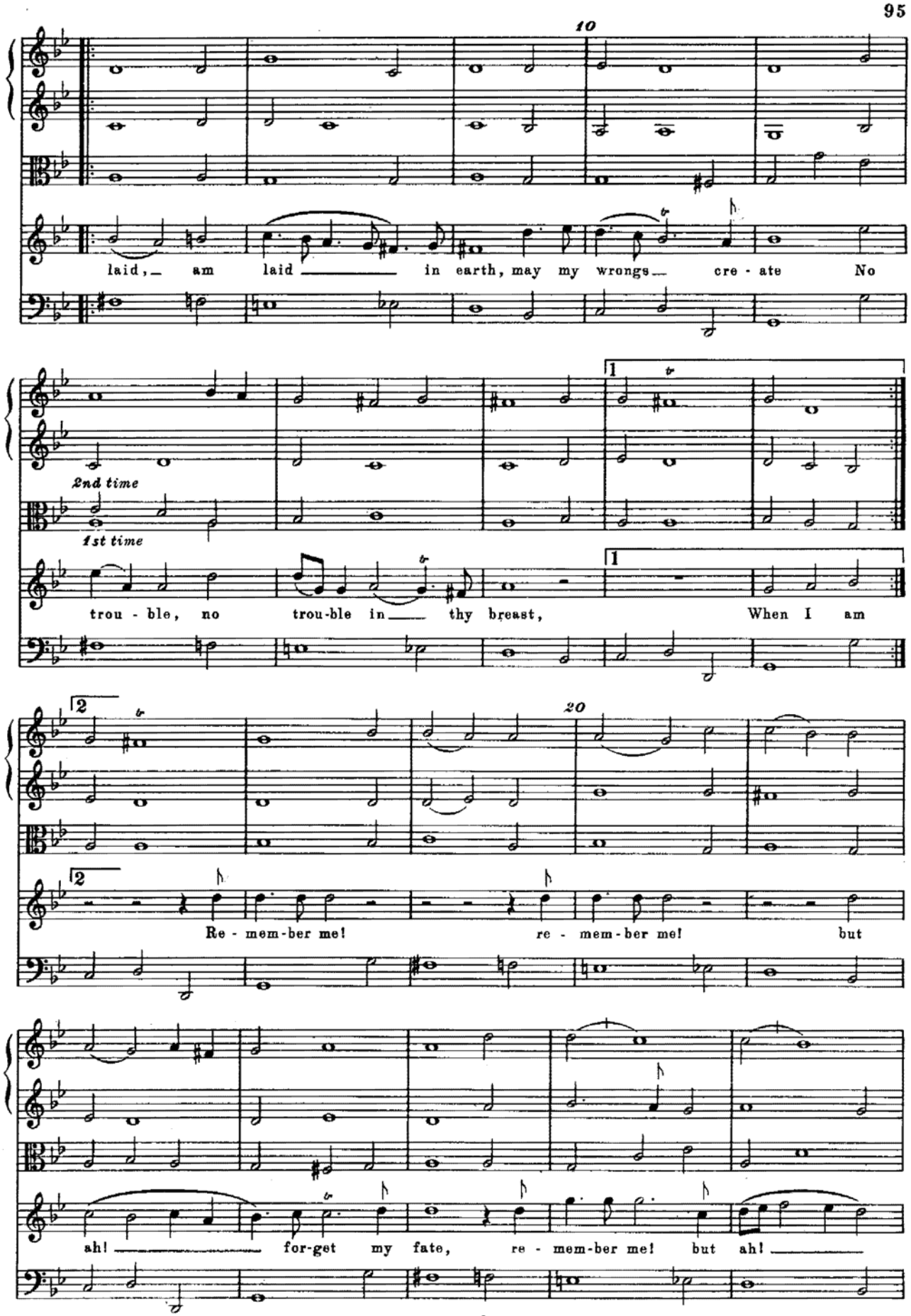
structures, each phrase coincides with the ground statements and composes out the same middleground structure. Although theme and variations is an extremely common treatment of the ground, this thesis has been primarily concerned with non-variation forms. In period structures, the tonal motion of the phrases together form a larger tonal motion—a period. The simplest of these occurs when the final cadence is changed from ending on $\hat{5}$ to ending on $\hat{1}$, or vice versa. Phrases that do not coincide with the ground, while again not as neatly categorized, have a greater potential to form move interesting phrase structures, having a greater expressive range and affective potential. Finally, two additional period types were discussed: ground modulation and ground transference into the upper voices.

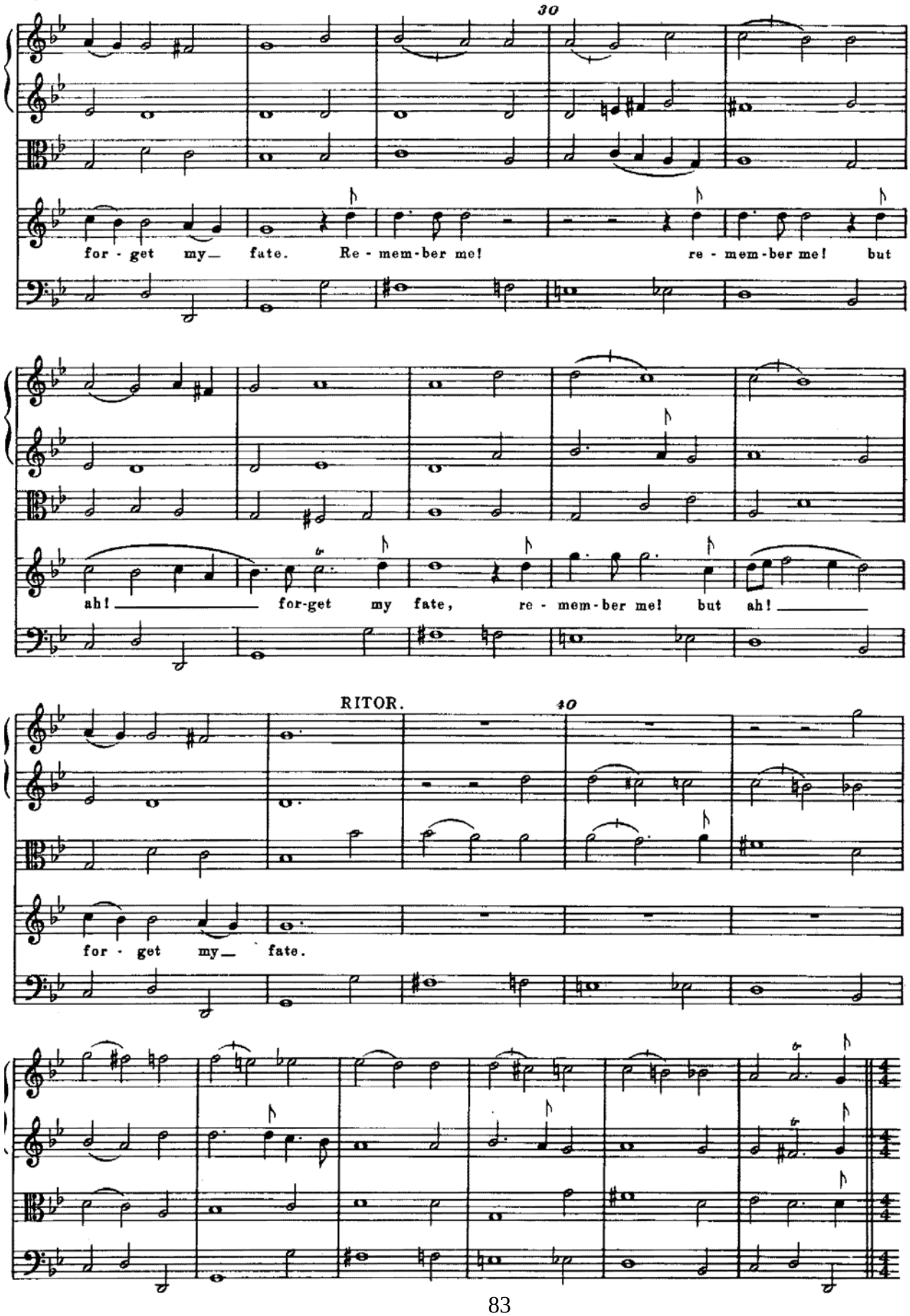
Finally, analyzed of two works in light of the concepts from the first two chapters. These works and their corresponding analyses summarize the main point of this thesis: while the first two chapters examined excerpts of one, two, or at most three phrases from ground-bass compositions in order to show the various possibilities for small-scale phrase organization over a ground, the two works in Chapter 3 demonstrate the manner in which entire ground-bass works whose phrase structure and large-scale form do not conform exactly to those implied by the repetitious statements of the ground.

APPENDIX

“WHEN I AM LAID IN EARTH”


94
37
DIDO
Thy hand, Be-lin - da; dark - ness shades me, On thy bo - som let me
Grave [♩ = 𝅗𝅥]
C p
rest; More I would, but Death in-vades me; Death is now a wel - come
38
Violin I
Violin II
Viola
very soft
very soft
pp sempre
guest.
When I am
pp sempre
Larghetto [𝅝 = 𝅗𝅥]
pp


10
laid, am laid in earth, may my wrongs cre - ate No
2nd time
1st time
1
trou - ble, no trou-ble in thy breast, When I am
2
20
Re - mem-ber me! re - mem-ber me! but
ah! for-get my fate, re - mem-ber me! but ah!


30
for - get my_ fate. Re - mem-ber me! re - mem-ber me! but
ah! for-get my fate, re - mem-ber me! but ah!
RITOR.
40
for - get my_ fate.

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