MODAL PROLONGATIONAL STRUCTURE IN SELECTED SACRED CHORAL COMPOSITIONS BY GUSTAV HOLST AND RALPH VAUGHAN WILLIAMS

by

TIMOTHY PAUL FRANCIS

A DISSERTATION

Presented to the School of Music and Dance
and the Graduate School of the University of Oregon
in partial fulfillment of the requirements
for the degree of
Doctor of Philosophy

June 2012

DISSERTATION APPROVAL PAGE

Student: Timothy Paul Francis

Title: Modal Prolongational Structure in Selected Sacred Choral Compositions by Gustav Holst and Ralph Vaughan Williams

This dissertation has been accepted and approved in partial fulfillment of the requirements for the Doctor of Philosophy degree in the School of Music and Dance by:

Dr. Jack Boss	Chairperson
Dr. Stephen Rodgers	Member
Dr. Sharon Paul	Member
Dr. Stephen J. Shoemaker	Outside Member

and

Kimberly Andrews Espy	Vice President for Research & Innovation/Dean of the Graduate School

Original approval signatures are on file with the University of Oregon Graduate School.

Degree awarded June 2012

DISSERTATION ABSTRACT

Timothy Paul Francis

Doctor of Philosophy

School of Music and Dance

June 2012

Title: Modal Prolongational Structure in Selected Sacred Choral Compositions by Gustav Holst and Ralph Vaughan Williams

While some composers at the beginning of the twentieth century drifted away from tonal hierarchical structures, Gustav Holst and Ralph Vaughan Williams sought ways of integrating tonal ideas with new materials. By analyzing the music of Holst and Vaughan Williams using a technique expressly designed for the analysis of tonal musical structure—Schenkerian Analysis—this study looks at ways in which the composers combined old and new techniques and what that means with regards to our understanding of their music. To do this, the current study focuses on the sacred choral repertory because it can form a stylistic bridge between nineteenth-century tonality and the composers' more experimental works. This repertory also provides an opportunity for interpreting text-music connections that help us understand the music at a deeper level.

In order to establish groundwork for the analytical methodology, I begin the study with background information on the composers and previous research done on their music, after which I summarize their most pertinent stylistic features (including their use of diatonic modes and other pitch collections, their harmonic, melodic, and contrapuntal techniques, and their formal structures). I then discuss how an analyst can

determine prolongational structure in Holst's and Vaughan Williams's music by establishing the tonic or pitch-class center, establishing the context for harmonic and melodic stability, and following predictable formal patterns. Finally, I apply the analytical methodology in detail to Vaughan Williams's *Benedicite* and Holst's *The Hymn of Jesus*, two substantial single-movement choral works that represent both the conservative (*Benedicite*) and experimental (*The Hymn of Jesus*) sides of the composers' style. I also compare the analyses with the texts and show how the composers portrayed religious ideas, even at deeper levels of the prolongational structure.

The modified Schenkerian analytical techniques used in these analyses show that even though Holst and Vaughan Williams used a number of twentieth-century compositional techniques, their prolongational structures still follow expected patterns and closely resemble traditional structures.

CURRICULUM VITAE

NAME OF AUTHOR: Timothy Paul Francis

GRADUATE AND UNDERGRADUATE SCHOOLS ATTENDED:

University of Oregon, Eugene
University of Northern Colorado, Greeley
Brigham Young University —Idaho, Rexburg

DEGREES AWARDED:

Doctor of Philosophy, Music Theory, 2012, University of Oregon
Master of Music, Theory and Composition, 2007, University of Northern Colorado
Bachelor of Musical Arts, Brass Pedagogy, 2004, Brigham Young University — Idaho

AREAS OF SPECIAL INTEREST:

Musical Energetics
Extensions of Schenkerian Analysis
Music and Religious Representation

PROFESSIONAL EXPERIENCE:

Graduate Teaching Fellow, School of Music and Dance, University of Oregon, 2007—2012

Assistant Lab Manager, School of Music, University of Northern Colorado, 2006—2007

Music Theory Intern Instructor, Music Department, Brigham Young University — Idaho, 2002.

GRANTS, AWARDS, AND HONORS:

Graduate Research Award, University of Oregon Graduate School, 2012

Brass Director's Award, Brigham Young University —Idaho Music Department, 2004

Second Prize in the Composition Category, *Outlet*, 2003

Magna cum Laude, Brigham Young University —Idaho, 2004.

PUBLICATIONS:

Francis, Timothy. 2005. *Family Gathering*. New York: Shawnee Press, Inc. (composition for flute, oboe, clarinet, bassoon, and piano)

———. 2003. The Reed at the Beach. *Outlet*, 5:82–85. (composition for flute and harp)

ACKNOWLEDGMENTS

I am deeply indebted to Professors Jack Boss and Steve Rodgers for their valuable perspectives and assistance in the research and writing of this dissertation. I would also like to express my gratitude to my parents for showing me how to be balanced and persistent, to my wife and children for standing by me and supporting me along the way, and to the many other family and friends who offered a listening ear, stimulating conversations, and positive encouragement. Finally, I say thank you to Dr. Steve Larson, who passed away while this dissertation was in process, for the inspiration to seek excellence in all I do.

TABLE OF CONTENTS

Chapter Page

Chapter Page

LIST OF EXAMPLES

Example Page

Example Page

Example Page

LIST OF FIGURES

Figure Page

CHAPTER I

INTRODUCTION

By the beginning of the twentieth century, many composers had been turning away from tonal harmonic and melodic patterns in search of other methods of musical organization. While some composers drifted away from tonal hierarchical structures, others, including Gustav Holst and Ralph Vaughan Williams, sought ways of integrating tonal ideas with new materials. Vaughan Williams (1872–1958) lived long enough to see the musical world transition from nineteenth-century tonality to the extreme experimentation of the mid-twentieth century. Gustav Holst (1874–1934) did not live as long as his compatriot, but he still saw many of the same transformations of musical style.

Perhaps partly because of this, research done on these two composers has tended to focus on historical and cultural aspects of their style, giving comparatively little attention to theory and compositional technique. However, in-depth analysis can help to clarify the relationship between traditional tonality and modern techniques in their music, and a deeper understanding of that relationship can greatly enhance our understanding of how their music is constructed. Therefore, by analyzing the music of Holst and Vaughan Williams using a technique expressly designed for the analysis of tonal musical structure– Schenkerian Analysis– the current study will look at ways in which the composers combined old and new techniques and what that means with regards to our understanding of their music. In order to more accurately delineate the scope and nature of this analysis, I will first provide additional background information about the composers and the music to be studied, after which I will establish the

framework for the methodology and then describe the manner in which the remainder of the dissertation will proceed.

I.1. The Relationship Between Holst and Vaughan Williams

I have opted to analyze the music of Gustav Holst and Ralph Vaughan Williams together because of the similarities in their compositional styles. The two English composers maintained a close relationship throughout their lives, and shared many experiences and aesthetic goals. They first met at the Royal College of Music in 1895, and from that time until Holst's death almost 40 years later, the two composers met together regularly to share, learn from, and critique each other's compositional endeavors.[1] Their long association turned out to be very beneficial to both composers because of their complementary talents and personalities.[2] This resulted not only in regular collaborations and the frequent borrowing of musical ideas, but also in a sharing of musical ideals.

Through their frequent interactions, the two composers shared a number of other interests and activities that contributed to their stylistic similarities. Early in their careers, they became active in collecting and promoting English folk music, which became a source of inspiration as well as musical material for them. Related to their

1. These and other biographical details can be found in Matthews (2011) and Ottaway and Frogley (2011).

2. The composers briefly discussed the possibility of shifting apart musically in a letter exchange in 1925. Vaughan Williams wrote: "I couldn't bear to think that I was going to 'drift apart' from you musically speaking. (If I do, who shall I have to crib from?)--I don't believe it is so" (Vaughan Williams and Holst 1959, 61). In his reply, Holst observes a principle learned in his Hindu studies and says that "occasionally drifting is necessary to keep our stock fresh and sweet" (Vaughan Williams and Holst 1959, 62). Ultimately, they did remain quite close throughout the rest of their lives (see Vaughan Williams and Holst 1959, 83–85). Regarding their complementary perspectives, Vaughan Williams's widow, Ursula, commented on how Holst's "professional attitude" and his experiences as a trombonist worked together with Vaughan Williams's "wider reading" and "more sophisticated Cambridge background" (U. Vaughan Williams 1964, 43).

interest in folk music was an appreciation and reverence for historical English music, especially the work of composers from the sixteenth century. In terms of their compositions, both composers are best known for their instrumental music, but they also worked frequently and successfully in the choral idiom, writing choral music that is well known and frequently performed even today.

The attention given to the instrumental music of these two composers extends not only to performance and historical notoriety, but also includes research done on their music. When it comes to understanding the relationship between common-practice tonality and twentieth-century techniques, however, we can learn just as much from the choral music as from the instrumental. Holst and Vaughan Williams worked with choirs at a number of different skill levels, which contributed to the wide range of techniques that one can find in their choral works. The choral music therefore can illustrate the whole continuum between their traditional and experimental extremes. In addition, having an element of text provides opportunities for close inspection of meaning and symbolic representation, which can clarify some of the reasons why the composers chose to use the techniques that they did.

Furthermore, much of the choral work (including teaching and conducting) that these composers did involved church choirs, and so some of the most successful choral works that they wrote were on sacred themes. From a stylistic standpoint, the sacred choral works will serve as a smaller cross-section of the composers' choral style. The sacred choral music also contains more consistent textual themes that can be used for comparisons between pieces and between techniques.

I.2. The Composers and Their Religious Beliefs

The sacred compositions by Holst and Vaughan Williams also make an interesting study because of how they relate to the composers' religious convictions, one of the areas in which the composers most differed. For much of his life, Vaughan Williams claimed atheism, and sacred works appear only rarely among his early compositions (Kennedy 1972–3, 34). He still spent a significant amount of time involved with church music, serving as editor for the 1906 *English Hymnal*, publishing the well-known *Five Mystical Songs* in 1911, and *O Praise the Lord of Heaven* in 1913. A succession of sacred choral compositions appeared in the 1920s, including *O Clap Your Hands* (1920), *Lord, Thou hast been our refuge* (1921), *O vos omnes* (1922), the Mass in G-minor (1922), and *Sancta civitas* (1925). These show an increasing interest in religious music, and as Byron Adams observed, it may have been around this time that Vaughan Williams made a significant shift in religious views that his wife Ursula described later as "[drifting] into a cheerful agnosticism" (Adams 1996, 112; U. Vaughan Williams 1964, 29).[3] From that point on, he published sacred choral works on a regular basis.

It seems odd that Vaughan Williams would choose to spend so much time and energy in sacred music, if he had no reason for what he did other than marketability and personal gain. Considering the importance the composer placed on nationalism and writing music for his countrymen, it might be possible that he saw the church and church music as being a part of an English national identity. Vaughan Williams would have been referring to this idea when he wrote that "the love of one's country, one's language, one's customs, one's religion, are essential to our spiritual health" (R. Vaughan

3. Adams notes that the composer still claimed atheism in 1921, while working on the Mass in G-minor, but his works and writings after that seem to indicate the change having taken place (see Adams 1996, 111–113).

Williams 1987, 154).[4] A similar connection can be seen in Vaughan Williams's interest in Renaissance English music, where, for composers such as Thomas Tallis, William Byrd, and Orlando Gibbons, church involvement was an important part of musical life (see R. Vaughan Williams 1987, 182).

Vaughan Williams always seemed to be sensitive to things of a spiritual nature, however. In a 1920 essay, entitled "The Letter and the Spirit," Vaughan Williams makes the comment that "the object of an art is to obtain a partial revelation of that which is beyond human senses and human faculties– of that, in fact, which is spiritual" and that "the means we employ to induce this revelation are those very senses and faculties themselves" (R. Vaughan Williams 1987, 122). Similarly, in 1934, he wrote that "we all experience at times, most of us momentarily only, a vision beyond earthly sense" (R. Vaughan Williams 1987, 151). Statements such as these confirm what Ursula Vaughan Williams said about the composer being agnostic later in life: the idea that he must have believed in some form of eternal existence, even if he did believe it to be unreachable or unknowable. He seemed to sense that there must be some form of existence beyond the world of man's physical senses. Only a few years later, in the score to *Sancta civitas*, Vaughan Williams quotes from Plato's *Phaedo*, saying that "since the soul is shown to be immortal, this seems to me fitting and worth risking to believe. For the risk is honorable, and a man should sing such things in the manner of an incantation to himself" (Kennedy 1971, 194). It might then be speculated that at some point, Vaughan

4. A similar sentiment underlies the following comment he made in reference to folk music: "Can we not truly say of these as Gilbert Murray says of that great national literature of the Bible and Homer, 'They have behind them not the imagination of one great poet, but the accumulated emotion, one may almost say, of the many successive generations who have read and learned and themselves afresh re-created the old majesty and loveliness.... There is in them, as it were, the spiritual life-blood of a people'" (R. Vaughan Williams 1987, 23).

Williams decided to follow his spiritual instincts and take the "risk," even if he still remained aloof from any particular religion.[5]

Although it is not within the scope of this research to make a thorough assessment of Vaughan Williams's religious beliefs and practices, an understanding of some of his religious thoughts and transformations aids in understanding his motivations and perspectives in setting the sacred works that he did. In 1902, the composer wrote that "if every composer will be himself, his music will at all events be genuine" (Vaughan Williams and Holst 1959, 28), and if Vaughan Williams's music is as genuine as he maintains that it should be, then even if he did not fully ascribe to Christian beliefs, he at least honored the meaning of the sacred texts that he used, and what those texts meant to his audience.

Less has been written on Gustav Holst's religious perspectives, probably because Holst was less vocal about what he believed. He took an early interest in Hinduism, using Sanskrit writings as the basis for a number of pieces, and even rendering his own translations for the *Choral Hymns from the Rig Veda* (1908–1912). He also had connections to a few Theosophists– most notably G. R. S. Mead, who introduced him to Gnosticism and the text Holst used for *The Hymn of Jesus*– but we do not know to what degree he did or did not believe in Theosophism himself (Head 1999, 9–10). Holst's daughter, Imogen, noted that the composer never ascribed to any particular religion, but that he retained an adherence to some of the philosophies of Hinduism for much of his career (I. Holst 1969, 21, 118). He wrote music on sacred themes throughout his life,

5. A universalist attitude towards religion is demonstrated by a comment he made in a letter to Rutland Boughton about his work *The Pilgrim's Progress* (1952): "I on purpose did not call the Pilgrim 'Christian' because I want the idea to be universal and apply to anybody who aims at the spiritual life whether he is Xtian, Jew, Buddhist, Shintoist, or 5th Day Adventist." (cited in Kennedy 1971, 313).

most of which are Christian in nature, and used text sources ranging from ancient Greek writings to contemporary poets. Although his religious beliefs remain somewhat of a mystery, it can nonetheless be assumed that he took a broad-minded stance with respect to religion, accepting ideals from a variety of different sources.

I.3. The Composers and Musical Analysis

I have already noted that research on Holst and Vaughan Williams has focused on history, culture, and nationalism, and that less attention has been given to theoretical issues. This may in part be a reflection of the composers' own attitudes towards analysis. Vaughan Williams tended to avoid analysis of his own music, instead favoring discussion of the poetic message over the technique used to convey that message (Kennedy 1972–3, 33). Similarly, Holst observed in a 1929 lecture at Yale University that it is certainly best to have technical training as well as practical experience, but if only one can be done, preference should be given to practice over theory (Vaughan Williams and Holst 1959, 68). Of course, this primarily refers to the study of composition, but Imogen Holst conveyed a similar attitude with respect to post-compositional analysis when she wrote concerning *The Hymn of Jesus* that "analysis is bound to destroy the fervour, just as it is bound to destroy all sense of proportion when it stops the music in order to stare at its occasional moments of weakness" (I. Holst 1968, 59). What she intended to convey was probably not that analysis has no use, since she made the statement while engaging in her own analysis of Holst's music, but more likely that analysis simply does not permit the listener the full effect of experiencing the music in time. Despite any negative perspectives on theory, however, understanding how and

why a composer uses particular compositional techniques can lead to, among other things, a better understanding of the composer's general style and how the composer understood the text being set.

Schenkerian analysis provides a way of looking at a number of different musical dimensions, and one can therefore use it to describe a composer's methods in a variety of areas. In describing long-range pitch relationships, an analysis not only incorporates an understanding of harmony and voice leading, but can also be used to describe melodic tendencies and motivic connections. Although Heinrich Schenker never adapted his methods to the music of Holst and Vaughan Williams, their works often establish pitch-class centers very clearly and in a way that resembles tonal hierarchies, differing in intervallic structure and harmonic relationships. The pieces therefore frequently outline and elaborate melodic motions directed towards those pitch-class centers in a manner similar to the structures that Schenker found in tonal music.

Much of Holst's and Vaughan Williams's music is based on the diatonic modes found in the Renaissance and folk musics that they were avidly studying. Their modal vocabularies often resulted in clearly-established prolongations and linear progressions, but since the music may or may not follow tonal norms, some modification of Schenker's methods is necessary. Because their music does not employ leading tones in the same way that tonal music does, structural patterns may not have the same characteristics. For example, in the Phrygian mode, the melodic tendency to descend would be the same or even stronger because of the half-step between $\hat{2}$ and $\hat{1}$. The resulting diminished chord built on $\hat{5}$ could not function in the same way as a major dominant chord could, which often means that another chord– such as the vii or II–

might fill the role of “dominant” on a deeper structural level, even if the v° appears in cadences. Other aspects of the music that require a different approach from strict Schenkerian analysis include the composers' use of non-triadic harmonies and parallel voice leading. Extended tertian chords, and harmonies built in perfect fourths or fifths occur frequently in Holst's and Vaughan Williams's music, and chords frequently move in parallel, which means that middleground and background harmonic progressions may feature those same characteristics.

Often the process of extending and manipulating an analytical method provides valuable information about a composer's technique, and so part of the goal of the current study is to explain how middleground and background structures operate in the music of Holst and Vaughan Williams– music that is strongly centric but does not follow the same melodic and harmonic patterns as those found in tonal music. This process can significantly contribute to our understanding of not only their music, but also many other composers who synthesized modern and traditional compositional techniques in a similar way.

Reciprocally, by using Schenkerian analysis on this repertoire, one can also examine the methodology. Much of the research scholars have done that extends Schenkerian analysis to 20th-century music focuses on more chromatic and experimental music. The adaptation of Schenker's methods to the strongly-centric music of Vaughan Williams and Holst will provide a connecting link between tonal Schenkerian analysis and post-tonal prolongational analysis.

I.4. Procedure for the Dissertation

In order to accomplish the goals that I have outlined above, it will first be necessary to examine the style of the composers, especially stylistic traits related to the analytical method: harmony, melody, counterpoint, and form. This will be undertaken in the second chapter, preceded by a survey of literature on the music of the composers that demonstrates the kinds of studies that have been done and how the current research draws on and contributes to what we already know about the composers' music. After an examination of the composers' style, I will proceed in Chapter III to describe the analytical approach in some detail, and will include a survey of literature on extensions of Schenker's analytical methodology in addition to an assessment of the criteria that I use to determine hierarchy and structure in Holst's and Vaughan Williams's music.

The next two chapters will undertake thorough analyses of Vaughan Williams's *Benedicite* and Holst's *The Hymn of Jesus* in order to put the methodology into practice and examine their music in detail. Both composers wrote a number of sacred choral works in both large and small dimensions. Although the larger, multi-movement works would enable an examination of connections between movements, the smaller, single-movement works allow for a broader stylistic cross-section of the composers' compositions. For Chapters II and III, these smaller works will provide clear examples of all types of techniques that the composers use.

The two works chosen for in-depth analysis, then, are two of the most significant (and longest) single-movement works written by these composers. Vaughan Williams's *Benedicite* was written in 1930 for the Leith Hill Festival, along with his *Three*

Choral Hymns and *The Hundredth Psalm* (U. Vaughan Williams 1964, 181). This follows the initial wave of sacred music that the composer wrote in the 1920s, and is therefore likely to have been written during or after Vaughan Williams's shift from strict atheism to agnosticism. For the text, Vaughan Williams combined words of praise from "The Song of the Three Holy Children," as found in the *Book of Common Prayer*, with a poem by John Austen (1613–1669). The piece provides a good example of the conservative side of Vaughan Williams's mature compositional style.

Holst wrote *The Hymn of Jesus* in 1917 (shortly after his orchestral suite *The Planets*), although the piece was not premiered until two years later. The text comes from the apocryphal *Acts of St. John*, with the incorporation of two Latin chants. G. R. S. Mead wrote a book that included an English translation of the hymn (Mead 1900), but Holst apparently found it unsatisfactory for musical setting and decided to render his own translation from the Greek original, as he had done with Sanskrit sources earlier in his career (I. Holst 1968, 59; Head 1999, 10).

Even though *The Hymn of Jesus* was written earlier than *Benedicite*, it contains many more experimental techniques, including a number of polychords, non-triadic chord structures, and a large ensemble that includes two spatially-separated choruses. It therefore is one of the more innovative among Holst's choral compositions. Since the two pieces are similar in length and both use a fairly large ensemble, the contrast in techniques between these two pieces will enable us to compare them and examine the full spectrum of the two composers' styles within a single genre.

The final chapter of the dissertation will begin with a summary of the adjusted Schenkerian methodology, and then I will compare the two detailed analyses, discussing

similarities and differences between the two, and how they affect the analytical results. I will follow this with a summary of stylistic features brought out in the analyses, including how these features relate to the historical issues described at the beginning of this introduction. Finally, the dissertation will conclude with an assessment of what the results of the study may mean for subsequent research, both with regards to the study of other genres by the same composers, and with regards to the study of other composers.

CHAPTER II

STYLE AND TECHNIQUE IN VAUGHAN WILLIAMS'S AND HOLST'S SACRED CHORAL MUSIC

Before we can accurately establish an analytical system for these composers, we must ascertain the nature of certain aspects of their style and technique, especially in the realms of harmony, melody, counterpoint, and form: domains which lie at the foundation of Schenker's analytical method for tonal music. To begin with, I will review literature specifically examining their music in order to explore what other writers have said regarding the composers' style. I have divided these publications into roughly two categories: those that contain primarily synoptic and interpretive information,[6] and those with an analytical-theoretical orientation. I have also included a few studies specifically about the texts used by Holst and Vaughan Williams. A description of stylistic features of the music that are most pertinent to graphical analysis follows the literature assessment. This will include characteristics of their modal pitch vocabulary, harmonic structures and progressions, counterpoint, and formal designs, and will conclude with some comparison between the two composers' styles. This analysis of the composers' techniques will lay the foundation for my methodology by clearly demonstrating how each domain operates in their sacred choral compositions.

6. This review will be limited to literature specifically about the music of the composers, and so research that is historical or biographical in orientation has not been included. Many of the works referred to in this chapter do include some history of the pieces, but the historical information in these works is presented together with stylistic features.

II.1. Research on the Music of Holst and Vaughan Williams

II.1.1. Synoptic Studies

Some of the earliest studies of the music of Holst and Vaughan Williams were published while the latter was still alive. Many of these early books were designed as an overview of all of the works the composers wrote, and therefore are of limited value in the current study. Foss (1950), for example, does address specific pieces, but the information in his book is largely biographical and cultural. The section on Vaughan Williams's choral music is focused on the larger works, and there is very little about each of the single-movement compositions. The books by Young (1953), Howes (1954), and Pakenham (1957) are similarly broad, and therefore limited in information on any specific work. Howes and Pakenham do mention the *Benedicite*, however, and provide a basic description of its formal outline.

A. E. F. Dickinson contributed a number of publications on both Holst and Vaughan Williams, and although most are historical, a few include helpful musical descriptions as well. One article that he wrote on the music of Vaughan Williams (Dickinson 1959) provides an overview of his output and the reception of his pieces, and mentions both the *Benedicite* and Holst's *The Hymn of Jesus* (which was dedicated to Vaughan Williams), but only briefly. His most useful publication studying these composers' musical style, however, was a book published in 1995 on Holst's music. In it, Dickinson includes brief descriptions of many pieces, with some history and some synoptic/descriptive comments. He includes a number of important choral works, and the section on *The Hymn of Jesus* describes a number of connections between musical

elements and the text scenario as well as extra-musical connections. These connections will be addressed as part of the analysis in chapter V.

Some later publications continued to follow the same pattern of surveying the music of the composers with varying degrees of depth. In 1968, Imogen Holst produced a book on the music of her father, much of which contains only historical and contextual information, but she included some interpretive analysis as well. James Day's (1998, first published in 1961) and Michael Kennedy's (1971) books on the music of Vaughan Williams fill a similar role,[7] and are considered the most complete surveys of his music, since both were published after the composer's death. These writers provide a context for understanding how the pieces used in my analyses fit into each composer's overall compositional output.

Most of the publications already mentioned are about the music of Vaughan Williams; Dickinson and I. Holst being the only ones to write on Holst's music. However, with the exception of one article that will be discussed in II.2, it is in the study of Holst's music that summaries of style and compositional techniques first appear—studies that help identify musical features pertinent to Schenkerian analysis. Edmund Rubbra, a student of Gustav Holst, wrote a number of essays on the composer that were compiled into a book (1974).[8] One of these essays, simply titled "Some Technical Characteristics" looks in some detail at the *Choral Hymns from the Rig Veda* and discusses features in them that reappear in later works. Among these features, he

7. Ursula Vaughan Williams wrote a biography of the composer (1964), but did not write a survey of the music like Imogen Holst did.

8. Rubbra also published an article on Vaughan Williams (1937), but it does not address aspects of his music other than to cite examples of English characteristics in the composer's music in order to extoll him as the head of a supposed "English school" of composers.

includes Holst's use of "blocks of reiterated chords,"[9] and Indian-influenced scales and modes.

In another book on Holst, Michael Short (1990) added an extensive chapter on the composer's musical style to an otherwise-biographical work. In it, he summarizes aspects of Holst's style in each major musical domain, citing a variety of examples. His assessment of rhythm and meter includes the observation that Holst often relates his tempos to physical movement, which bears some significance for *The Hymn of Jesus* because of references to dancing in the text. On melody and counterpoint, Short notes the presence of folk influences, imitation, canon, fugue, and ostinato in Holst's works, but does not go into any detail about the extent to which he does or does not follow eighteenth- or nineteenth-century contrapuntal practices. He also does not address any issues of long-range contrapuntal motions or Schenkerian background structures.

Short does raise a significant issue with respect to Holst's "tonality," pointing out that on the one hand, it is possible for any of the seven notes of a diatonic set to be set as a tonic or pitch class center, and on the other hand, once a pitch class center has been established it could act as tonic for any of the seven different diatonic modes. Recognizing this reciprocal way of viewing modal relationships is important in assessing large-scale progressions in the music of Holst and Vaughan Williams because the relationship is not necessarily equal. A single tonic pitch could be the same goal or fundamental pitch class shared by a number of different modes throughout a piece, but a single diatonic set would not necessarily serve as a fundamental in the same way.

9. Rubbra's use of the term "blocks" is similar to analyses of Stravinsky's music by Cone (1962) and Van den Toorn (1975 and 1977). However, neither Rubbra nor those using the term after him (including Short and Macan) refer to these analyses in their works. Although a comparison between Stravinsky's use of block structures and the structures of Holst and Vaughan Williams would be a useful study, such connections are not pertinent to the goals of this dissertation and therefore will not be addressed here.

Instead, the presence of a diatonic set as a stable collection for a significant portion of a work would likely signal a prolongation of a single element, meaning that at the deepest level, a single tonic would be at the foundation of the set, regardless of how many local tonics may have manifested themselves in the passage.

After discussing issues related to tonality, including Holst's use of diatonic modes, non-diatonic scales, and bitonal relationships, Short describes his harmonic style and then his practices in musical form. Short points out that Holst's harmonic language includes elements of traditional harmony (that is, 18th- and 19th-century triadic harmony) alongside more experimental techniques, including quartal chords, extended tertian harmonies, and other non-triadic sonorities. Similar to Rubbra's use of the term "blocks," Short refers to Holst's formal language as being sectional and pattern-based, rather than developmental like much nineteenth-century music. Short also quotes extensively from Holst's own writings on form, explaining that Holst thought form should have beauty and clarity while being unique and fitting to the music it embodies. Lastly, Short includes sections specifically on Holst's instrumental and choral writing, addressing issues specific to each.

As I have asserted earlier, these synoptic studies provide the foundation for understanding the general style and background of the music of Holst and Vaughan Williams. Analytical studies, which I will address next, provide more information that we can use to get a better picture of the harmonic, melodic, and contrapuntal devices that they used.

II.1.2. Analytical Studies

Although most analytical research has been more recent, a few early studies go into some detail about certain aspects of Holst's and Vaughan Williams's work. William Kimmel wrote an article (1941) that summarizes Vaughan Williams's melodic techniques and some of the sources from which he learned those techniques. He cites the previously mentioned connections Vaughan Williams had to sixteenth-century music, but also includes plainsong as one of the composer's influences. In addition, he comments that Vaughan Williams tends to use repetition as a melodic constructive device, rather than development in the nineteenth-century sense. In a much later but similar article on Holst's melodic writing, John Warrack (1974) cited the influence of folk elements, noting that they provided an alternative to Wagnerian chromaticism. Warrack also addresses other linear elements, including the use of bitonality, doubled melody, ostinato, and stepwise bass lines. Some of these linear features will need to be considered when we look at the composers' melodic prolongational structures.

Beginning in the 1990s, analytical attention given to the music of these two composers increased significantly. In 1991, Michael Vaillancourt wrote an article studying Vaughan Williams's *Pastoral Symphony* (Symphony No. 3), analyzing it in some depth. He began the study with a significant opening description of its stylistic sources and significance, including elements from folk song, sixteenth-century polyphony, and Ravel-influenced orchestration. Vaillancourt examines large-scale pitch structures and a number of motivic connections that could have been demonstrated with reference to a Schenkerian graph, but he simply tried to describe them without

one. Since the study was done on just one work, and that an instrumental one, the features cited in the article are useful only as a comparison with the choral works.

The year 1991 also saw the publication of a significant dissertation by Edward Macan thoroughly describing the style of both composers. Similar to Short, Macan organizes his dissertation according to musical domain. Macan describes a number of harmonic devices used by the composers, including the types of chords they used, how chords progress, non-diatonic scales, voice-leading practices, bitonality, modulation procedures, and their use of static sound masses. Macan treats each composer separately when discussing their melodic practices, due to the differences between them. He describes Vaughan Williams's melodies as being lengthy, often striving for a registral highpoint, and often using shifting meters and irregular phrase lengths. For Holst, individual melodic strands are subordinate to the overall texture, and motives or repetitions are less frequent.

One of Macan's more significant contributions to our understanding of the music of Holst and Vaughan Williams is his section on large-scale structures, in which he defines formal structures in terms of contrasts between sectional blocks. As I mentioned, Rubbra and Short had previously observed the idea of sectional blocks in the music of these composers, but had not identified any consistent types of blocks.[10] Macan observes that some blocks involve a dissonant sound mass of some kind, and typically involve harmonic stasis while frequently striving for some melodic/registral high point. Other blocks tend to involve goal-directed harmonic movement and use modal or other less-dissonant pitch collections. Overall, music tends to be oriented

10. In analyzing Holst's formal principles, Short observes that he often used "sectional patterns of contrasting material," but then does not describe what kinds of contrasts are present between sections (see Short 1990, 412–413).

towards arriving at harmonic and melodic goals, with static blocks serving (in Schenkerian terms) to prolong a single element of the structure. This section of Macan's dissertation also takes a close look at the structure of *The Hymn of Jesus*, and so I will return to some of his comments on that piece in chapter V.

Macan expands on the idea of sectional blocks further in an article from 1993. In the article, he defines the kinds of sectional contrasts that can be found more closely, still maintaining that there are two general types. The first type tends to be consonant, modal, and harmonically goal-directed. The second type tends to include harmonically-static dissonances, which are often based on bitonality, whole-tone, or pentatonic collections. In addition, Macan notes that the composers typically linked together modal pitch collections, chordal textures, lyrical melodies, and richer orchestration. They likewise linked dissonant harmony, faster tempos, higher energy levels, motoric rhythms, linear textures, and more acerbic orchestration. Against such stark contrast, the composers often provide a sense of unity by including similar melodic or motivic material in otherwise-contrasting blocks.

Prolongational structures in tonal music typically rely on a strong relationship between the prolongations and the formal shape of a piece. For this reason, the observations writers have made with regards to Holst's and Vaughan Williams's blocked formal structures will weigh heavily as we discuss the relationship between form and prolongational structure in their music. I will address this issue in III.3.4.

Like other writers, Richard Greene (1992) also noted the lack of formal transformation processes in Holst's music, but for him the issue was not so much the formal process as it was the relationships among themes and between those themes and

extra-musical programmatic elements. His article examines Holst's *Egdon Heath*, comparing technical elements in the piece with aspects of the book that inspired it, and explains how Holst uses musical gestures, modality, and harmony structurally and syntactically as metaphors for ideas in the book. Although the piece is not directly related to those in the current study, I've included his article here because of Greene's observations about Holst's formal processes and use of tonality. Some of his insights tie in with aspects of prolongational structure, whereas some of what he discusses also helps us understand the relationships between text, inspiration, and interpretation for the composers.

Lisa Isted included sections on Holst and Vaughan Williams in her dissertation (1993) on the use of modal structures in late-Romantic and early-twentieth century European music. Like many others, she cites folk song as a major source for the use of modes in their music, and indicated that part of Vaughan Williams's admiration for Sibelius may be because of a shared interest in nationalism and folk music. She describes some of the characteristic uses of modes in Holst's and Vaughan Williams's music, including the relationships between diatonic modes and whole-tone or pentatonic collections. In an appendix, she also includes a discussion of the theoretical characteristics of diatonic modes and how that affects their usage. Many of the features she describes will be discussed in the summary of the composers' styles in section II.6.

Anthony Payne (1998) likewise addressed the issue of what it meant for the composers (specifically Vaughan Williams) to use diatonic modes, and identifies other related aspects of style, including parallel chords, bimodality, and the use of synthetic scales. His major conclusion was mostly historical, however, noting that Vaughan

Williams's use of modes enabled him to leave nineteenth-century chromaticism behind and create music that used new techniques yet still appealed to listeners.

Lionel Pike has written a few works examining the music of Vaughan Williams, most notably his book on the composer's symphonies (2003).[11] In this work, Pike analyzes each of the symphonies sequentially, looking at the music from a variety of perspectives. However, because he is covering all of the symphonies in one book, the analyses are mostly synoptic and do not address theoretical issues with any depth. I mention it here because, like Vaillancourt (1991), it includes musical features in the instrumental works that one can compare with those in the choral works.

To go along with Macan's work, two additional dissertations, by David Manning (2003) and Ian Bates (2009), have focused on the music of Vaughan Williams. Manning's dissertation (2003) examines Vaughan Williams's music from three different theoretical perspectives in order to better understand his harmonic and formal musical language: Neo-Riemannian theory, Schenkerian analysis, and Sonata theory. When he discusses the possibility of applying Schenkerian techniques, Manning points out that Vaughan Williams's music may not always build and seek release of tension in the same way that Classical and Romantic music does, and therefore may not be as goal-directed. He also makes the same observation as Short that one diatonic collection could have any of its seven pitches established as a pitch-class center, while a single established tonic could be home to any of seven different modes. To reconcile this and the relationship between common-practice tonality and modality in Vaughan Williams's work, Manning uses the term "modalized tonality," pointing out how both aspects relate.

11. See also Pike 1984, which explores the use of the Phrygian mode in music by Tallis, Vaughan Williams, and Herbert Howells, and the influence each composer had on those after him.

In demonstrating some of the principles he discusses in the Schenkerian section of his dissertation, Manning critiques and reanalyzes an analyzed passage of Vaughan Williams's fifth symphony from Feliz Salzer's *Structural Hearing* (1962). Because it has more to do with the analytical technique than with the composer's style, this comparison will be addressed in chapter III (section III.1.2).

In his section on Neo-Riemannian analysis, Manning includes an analysis of one of Vaughan Williams's sacred choral works: *O vos omnes*, and although he primarily addresses its harmonic language, the piece has features that are worth examining in Schenkerian terms as well. In it, triads move in parallel, making chromatic relationships a norm for the piece. Manning analyzes these chromatic relationships in terms of Neo-Riemannian transformations, but Neo-Riemannian transformations are based on principles of parsimonious voice leading. Where all parts are moving in the same direction at the same rate, one would question what role parsimony, or even counterpoint in general, plays in the harmonic relationships established by such a practice. This also raises questions about what makes certain chords more stable or less stable than other chords, and how tonic is established in pieces where a single diatonic collection may not be maintained for any significant length of time. These are some of the issues that will be addressed in chapter III.

In his section on Sonata form, Manning analyzes the symphonies, and the extent to which they conform to or deviate from the Sonata formal model. Since formal patterns are closely integrated with middleground and background structures, form will need to be addressed in the sacred choral works, but forms resembling or derived from

the Sonata model occur rarely in Holst's and Vaughan Williams's choral music, and so further discussion of that aspect of Manning's research is unnecessary.

Ian Bates's dissertation (2009) presents a much more rigorously theoretical approach to Vaughan Williams's modality than has hitherto been undertaken. By constructing a generalized theory of diatonic modes, Bates establishes a way for modal relationships to be compared in order to better understand the pitch structure of a composition. Like other scholars, Bates recognizes the lingering influence of major/minor tonality at Vaughan Williams's time and in his music. This means that listeners will perceive patterns and relationships in tonal terms by default if they are not contradicted by a modal progression that precludes tonal interpretation, a phenomenon Bates refers to as "default tonality". Bates describes how the two pitches forming a tritone in any diatonic set (TT pitches) function in defining that set and the tonic or pitch class center within that set. Any tritone interval can be part of only two diatonic sets, so if collections are limited to diatonic constructions, a tritone and any other pitch class would be sufficient to define the collection. The TT pitches, then, should be presented in close proximity to the tonic in order to define a mode, which means that the best mode-defining chord progressions would involve a tonic chord preceded by a chord or chords containing the TT pitches.

From that foundation, Bates describes chord progressions by placing scale degrees in thirds ascending clockwise around a circle, thus any three adjacent scale degrees on the circle form a triad (see figure II.1). Chord progressions that ascend by third or by fifth (a combination of two thirds) are represented by clockwise rotations on the circle, and those that descend are represented by rotations counterclockwise. In this

way, chord progressions are generalized so that they can be defined in modal music in a manner similar to tonal music.[12] As well as Bates's system accounts for certain kinds of mode-defining progressions, especially progressions by third or fifth, it does not account very well for stepwise progressions, which are very common in Vaughan Williams's music. He also does not include the possibility of extended tertian or non-triadic harmonies in these progressions. Nevertheless, Bates's modal harmonic system can aid in determining harmonic expectations, which will be necessary for determining harmonic prolongational structure.

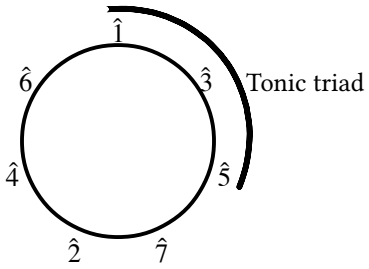


Figure II.1. Diatonic scale degrees placed in thirds around a circle, based on Bates's figure 1.2.2 (2009, 10).

In extending his generalization of modal theory, Bates identifies three domains in modal music: "pc content" or pitch collection, "mode type," and "pc center" or tonic. These domains are codependent so that knowing any two pinpoints the third. When one domain is known, the variables for the others can be placed on a circle (pc content or pc center) or line (mode type), depending on whether the variable is cyclical or terminal. Bates also combines the variables into a "table of modal relations," where two

12. A connection can be made between Bates's circle and diagrams used by Moritz Hauptmann and Hugo Riemann (see Hauptmann 1888, 10, for example), although Bates does not cite any other authors on this subject.

of the domains are placed along horizontal and vertical axes, and the third appears at a diagonal in the table body. This table can then be used to graph the modal movement and tonal relationships throughout a composition (see Bates 2009, 79).

Bates's theoretical system has value in that it recognizes and incorporates the relationship between common-practice tonality and modality in Vaughan Williams's music, but in order to generalize more easily a number of features of the music had to be ignored, including the harmonic devices mentioned above (stepwise progressions, extended tertian chords, and non-tertian harmonies) as well as the composer's frequent use of non-diatonic collections. Still, his approach to defining mode based on the proximity of collection-specifying elements clarifies important aspects of Vaughan Williams's style.

Many of the sources on Gustav Holst's music include *The Hymn of Jesus* in their analyses, but D. Royce Boyer exclusively focused on that one piece in his doctoral treatise (1969), as well as in an article he published based on a section of the treatise (1975). He begins the treatise by outlining the historical and biographical contexts for the piece, providing considerable background for the text as well. Much of the middle of the treatise is his analysis of the piece, and he concludes with discussions of text painting, and suggestions for rehearsal and performance.

Boyer's article (1975) comes from a section at the beginning of his treatise in which Boyer describes how Holst portrays mysticism in the piece through the use of plainsong, dance elements, spoken text, and harmonic text-setting. These kinds of features will be important in interpreting Holst's sacred choral works because of the relationships between the religious texts and his musical setting.

Following this section in the 1969 treatise, Boyer discusses the harmonic language of the piece and makes a few comments relevant to Holst's style in general. He notes that Holst's harmonic writing is occasionally driven by contrary motion in the outer voices, includes moving harmony over an ostinato or stationary pedal, and sometimes uses palindromic successions, repeated chords, or 2-chord oscillations. His observation of the harmonic stasis created by some of these devices prefigures Macan's work in that area. After discussing harmony, Boyer describes Holst's melodic idiom, pointing out that the melodic lines often cycle around a central pitch, and tend to be conjunct. He follows melody with sections on rhythm (mostly text-setting issues), and texture (including orchestration). Boyer's observations generally agree with other writers on Holst's style, but his analysis of *The Hymn of Jesus* helps establish the groundwork for my analysis of the piece in chapter V.

II.1.3. Studies of the Composers' Sacred Text Settings

Three authors published articles specifically devoted to the texts set by these composers and the meaning and significance of those text choices, which contribute to the interpretation of their music. The earliest of these articles was written by Ursula Vaughan Williams (1972—1973) a number of years after her husband's death. In it, she notes that Vaughan Williams was well-versed in English literature, and could have chosen from a wide range of sources for his texts. She addresses the issue of Vaughan Williams's Biblical text settings, noting that most Biblical texts come from the Old Testament, which would have had a more universal appeal as well as more poetic language than the strictly Christian New Testament. For Vaughan Williams, an

understanding of the text was extremely important in understanding the music, and he would typically read the words of a piece to the choir before beginning a rehearsal (U. Vaughan Williams 1972–1973, 88).

Byron Adams (1996) hones in specifically on Biblical texts in Vaughan Williams's music, and in doing so he investigates the composer's religious beliefs more thoroughly than any of the other writers I have cited. Adams cites comments made by the composer about changes in the texts in some of his music, demonstrating Vaughan Williams's willingness to alter and combine texts to suit his purposes. Alterations could even include the combination of Biblical and non-Biblical texts. Adams also points out the history of Vaughan Williams's involvement with sacred music, and how the timing of his comments and his compositions points to the 1920s as the most probable time for his religious shift. According to Adams, many of Vaughan Williams's text settings show an acute sensitivity to Christian spirituality, but some texts convey a sense of distance from deity, which may be a reflection of the composer's agnosticism.

Raymond Head's article (1999) also explores text meaning and religious signification, but focusing solely on Holst's *The Hymn of Jesus*. Because of Gnostic ideals portrayed in the text, Head investigates elements in the piece that convey similar ideals musically. The age of the text source combines with elements like plainsong and the juxtaposition of divergent musical material (such as multiple keys and multiple choirs) to evoke a sense of temporal and spatial expansiveness. The text seems to convey an initiation into Christ's inner circle, an initiation ceremony that involves dancing as a means to privileged knowledge. The two main choirs in the piece thus represent the "master" and the "initiand" in their alternations. Head adds that Holst's

treatment of the dance aspect in the piece goes beyond the rhythm he used in the music, and also involves the care he took in translating the text.

To the foregoing list of writings on the music and style of Holst and Vaughan Williams might be added a few of their own publications. Vaughan Williams published a large number of writings of various kinds (mostly contained in R. Vaughan Williams 1987 and Vaughan Williams and Manning 2008), and while Holst did not write as much, a few of his publications have been collected that include intimations into how he viewed his work and what his aesthetic ideals were (Vaughan Williams and Holst 1959). While these writings provide information about biographical details and the composers' own beliefs, they do not cover any specific musical techniques or compositional practices.

II.2. Summary of Pertinent Stylistic Features

The foregoing description of research publications demonstrates scholars increasing interest in analytical and theoretical studies of Holst's and Vaughan Williams's music, and many characteristics of their style have been well-documented. However, with the exception of Boyer's and Head's works on *The Hymn of Jesus*, most studies have either only included the composer's choral works as part of an overall survey, or have focused entirely on the composers' instrumental music. By analyzing features of the sacred choral music pertinent to Schenkerian analysis—modal usage, harmony, counterpoint, and form—my research here will not only contribute to our understanding of the technical aspects of their music, but will also balance research on the instrumental works in order to provide a broader perspective of their music.

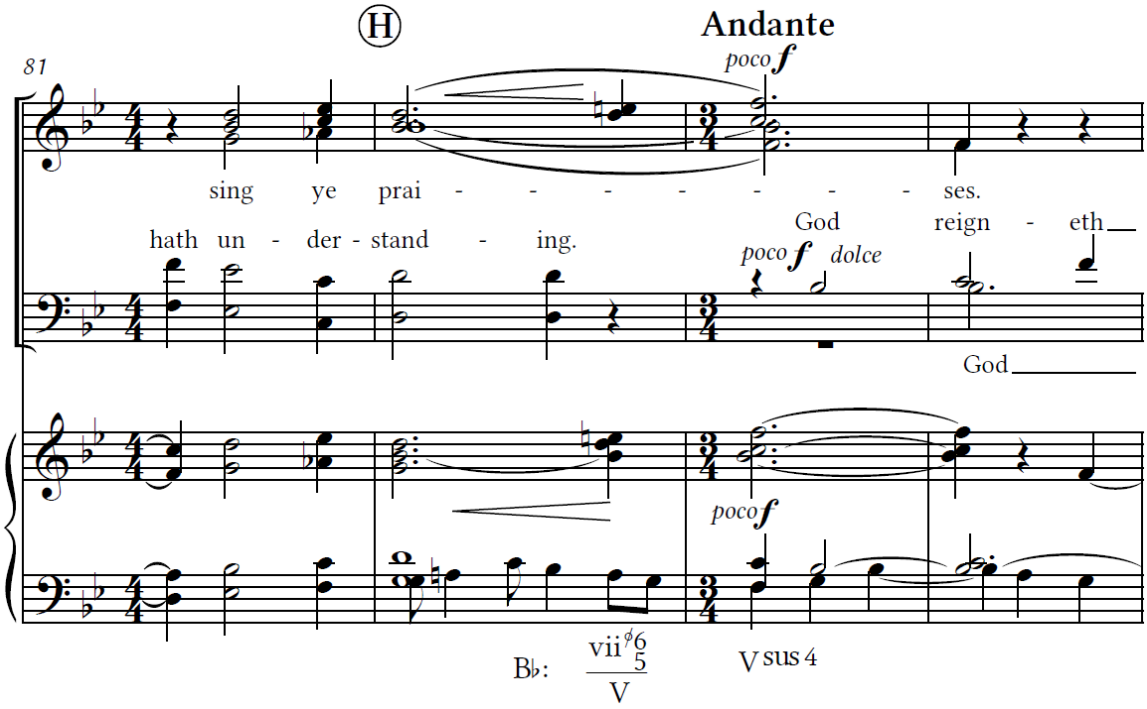
II.2.1. Diatonic Modes

One of the most apparent and oft-cited aspects of the music of these composers involves their extensive use of diatonic modes. In referring to the diatonic modes, I will use their most standard names (Lydian, Dorian, etc.) for the same reasons observed by Vincent (1951, 3): they are well-known, they have been used consistently for a considerable amount of time, and they avoid the confusion possible with other systems (for example, letter or number designations for modes can be confused with letters used for note names or numbers used for pitch-class designations or scale degrees).

As discussed in chapter I, one of my purposes for this dissertation is to clarify the relationship between eighteenth- and nineteenth-century tonality and innovative techniques in Holst's and Vaughan Williams's music. In an appendix on the diatonic modes, Lisa Isted criticizes Vincent Persichetti for using the major and minor scales as a basis for defining each mode (Isted 1993, 432–436; Persichetti 1961, 32–33). However, even though it is difficult to identify the thoughts of the composers, defining the modes as alterations of the major and minor scales might be very close to the perspective these composers had. Kimmel refers to the composers' use of modality as a "single factor" in a "broader tonality" (1941, 494), and Greene makes the observation from his analysis of Holst's music that he may have expected that his audience would maintain common-practice tonality as a musical norm or frame of reference (Greene 1992, 251). Manning's term "modalized tonality" and Bates's "default tonality" similarly point to the close intermixing of elements in Vaughan Williams's music.

Example II.1 shows an excerpt from the motet *O, Clap Your Hands*, where Vaughan Williams integrates a tonal idiom into a modal piece. Most of the motet

emphasizes B♭, and the frequent appearance of A♭ signals the Mixolydian mode. However, in measure 82 A♭ is replaced by A♮, and an E♮ appears in the uppermost voice that functions as a secondary leading tone to the following F. The held G in the bass completes a half-diminished seventh chord (with B♭, D, and E), tonicizing V in the overall key of B♭.

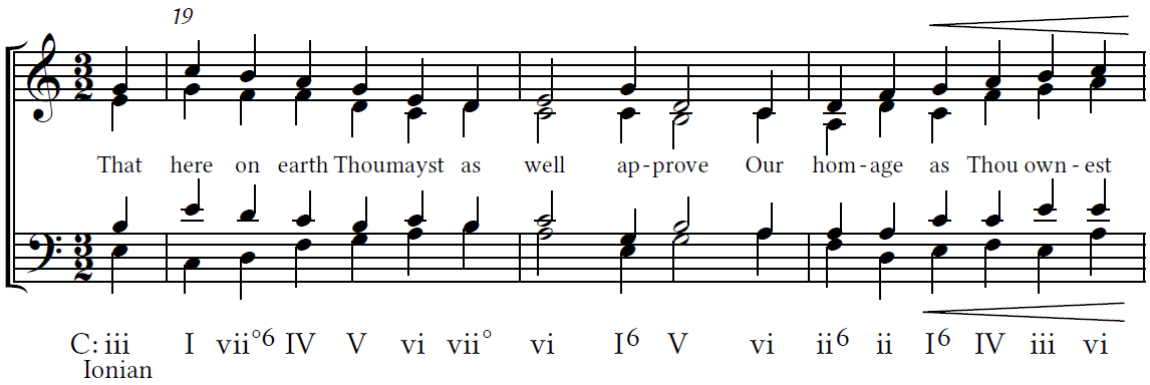


Example II.1. Vaughan Williams, *O, Clap Your Hands*, mm. 81–84.

For the sake of descriptive clarity and consistency in comparison, "tonal" herein will refer to the major-minor system as it was used by composers in the eighteenth and nineteenth centuries. "Modal" will refer to the use of diatonic scales or modes in a manner different from the major-minor system (I will explain this below). "Centric" is another term that scholars often use with respect to early twentieth-century music that

emphasizes one pitch (or sometimes a set of pitches) as being more important or stable than the others, but without using conventional tonality. This term can act as an umbrella under which terms like "tonality" and "modality" operate, but in the current context its value comes in passages where a pitch is emphasized in the manner of a tonic, yet without a clear tonal or modal context. For the sake of consistency of function, "tonic" will refer to the tone (or chord) that serves as the pitch-class center of a passage of music, regardless of whether that passage is tonal or modal.

The established distinction between modality and tonality can also be extended to the Ionian and Aeolian modes, which share pitch structure with the major and natural minor scales, respectively. Ionian tends to differ primarily in how chords are used: they do not follow, and sometimes contradict, the normative orderings and patterns common in tonal music. An example of this can be seen in Holst's *Eternal Father* (example II.2). The chords in measure 19–20 are not so much governed by any tonal process as they are by the contrary motion that can be seen between the outer voices. Measure 21 has the outer voices proceeding in similar motion, but the chord ordering still deviates from tonal practice.

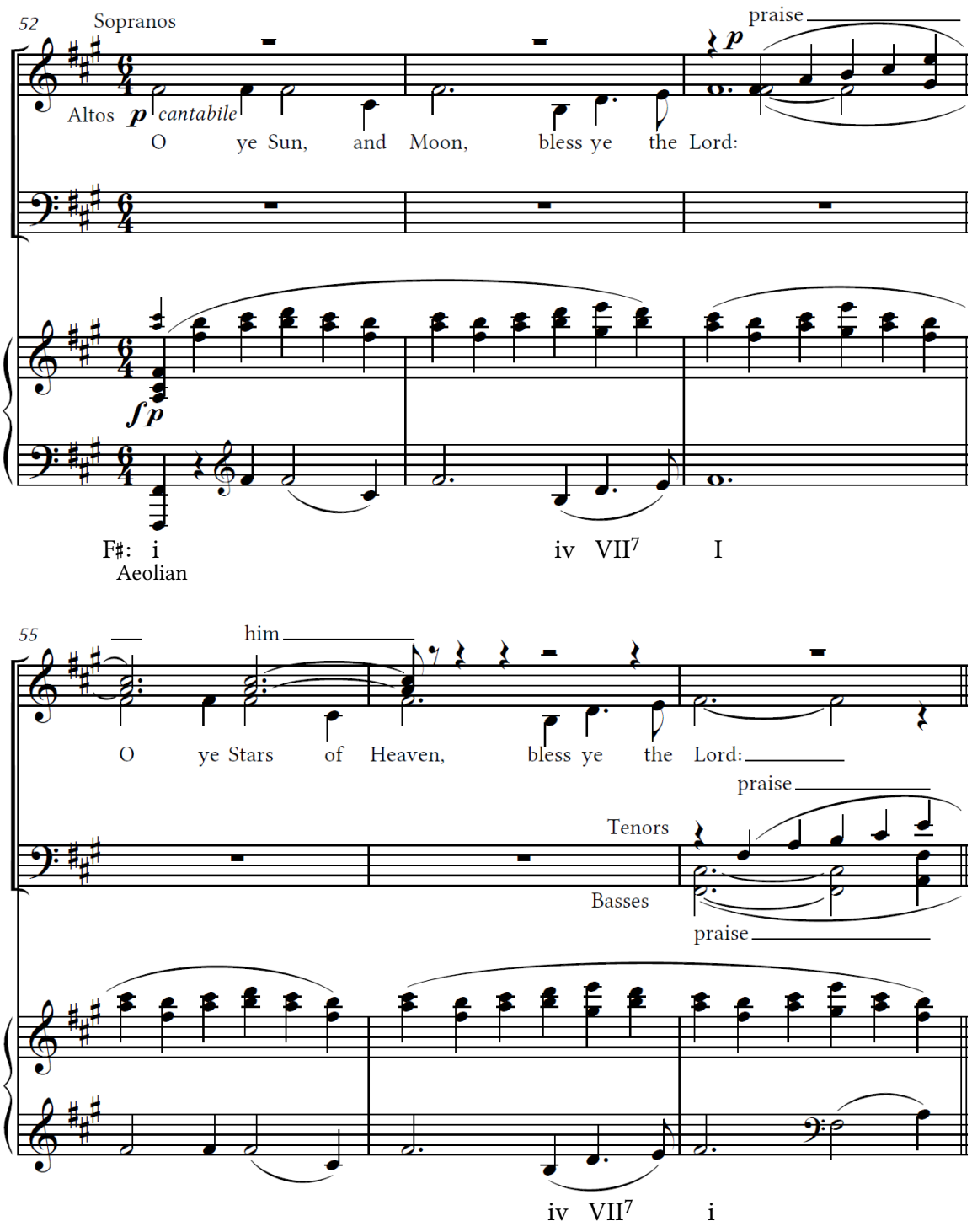


Example II.2. Holst, *Eternal Father*, mm. 19–21.

Aeolian differs even more significantly from the tonal minor scale because not only do chord progressions differ from tonal progressions, but the pitch collection will more likely remain strictly diatonic, whereas in a tonal minor key one will usually find raised pitches, especially $\hat{7}$, the leading tone. An Aeolian passage appears in measures 52–54 of Vaughan Williams's *Benedicite*, shown in example II.3. The melody and initial chord clearly establish F♯ as the pitch-class center of the passage, but all occurrences of the pitches D and E are natural, including those in the alto part that form a stepwise ascent to the tonic. The harmonic root progression would not be exceptional in a tonal passage, but because of the uninflected pitches, the chord qualities differ from what one would expect to hear in a tonal piece. Statistically, Holst and Vaughan Williams seem to use the Dorian and Mixolydian modes most frequently, but as the previous examples show, they used all of the diatonic modes to some extent (Locrian being the rarest, as one would expect).

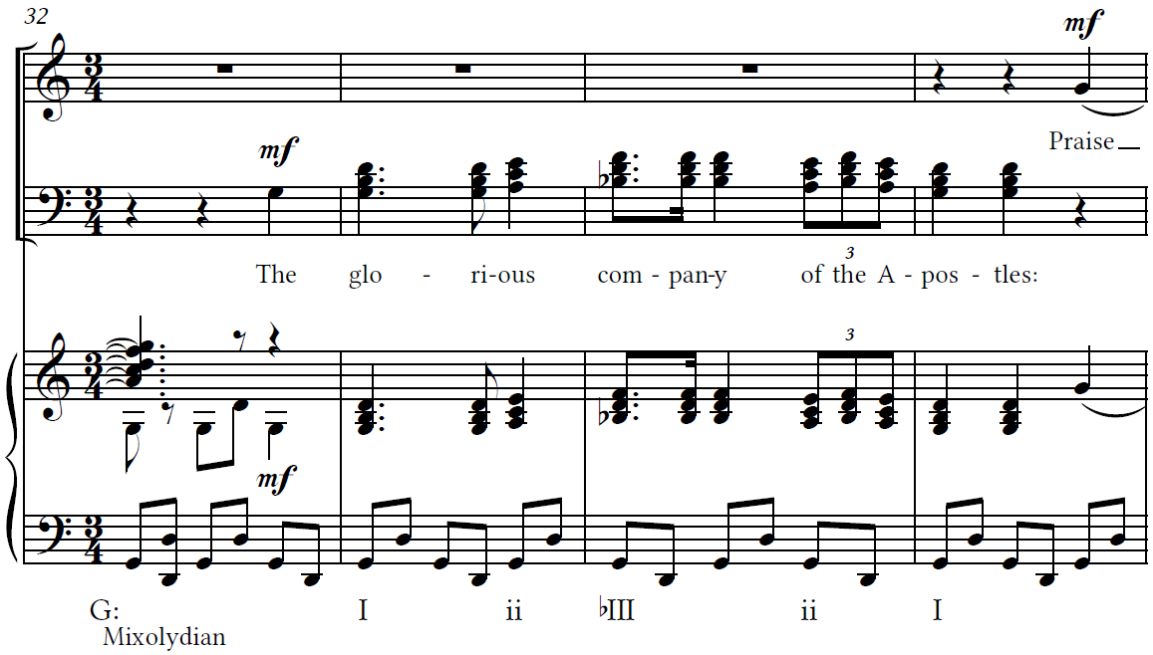
II.2.2. Harmony

Understanding harmonic hierarchy is a fundamental part of determining prolongation in a piece of music, and so I will now address aspects of Holst's and Vaughan Williams's harmonic style. Holst and Vaughan Williams based much of their harmonic language on triads, but also incorporated extended tertian, quartal, and other types of harmonies. The composers used diatonic triads freely, sometimes following tonal patterns and sometimes deviating as was observed earlier. Non-diatonic triads, rather than being induced by voice leading as was often the case in tonal music, frequently resulted from the use of triads outside of the established mode in a manner



Example II.3. Vaughan Williams, *Benedicite*, mm. 52–57.

similar to "borrowing" or "mixture" (see Macan 1991, 16). This was especially common with would-be diminished triads, where a single pitch from a parallel mode might change the less-stable chord into a major or minor triad. In example II.4, from Holst's *Short Festival Te Deum*, a ♭III replaces what diatonically would have been iii° in the middle of a short, palindromic progression reinforcing the tonic chord of G-major. In this passage, the G-Mixolydian mode gets reinforced by the framing chords, the bass ostinato, and the pitches in the highest voice part, while the embellishing B♭ chord temporarily colors the mode from an inner voice, avoiding the diminished quality of the diatonic triad.

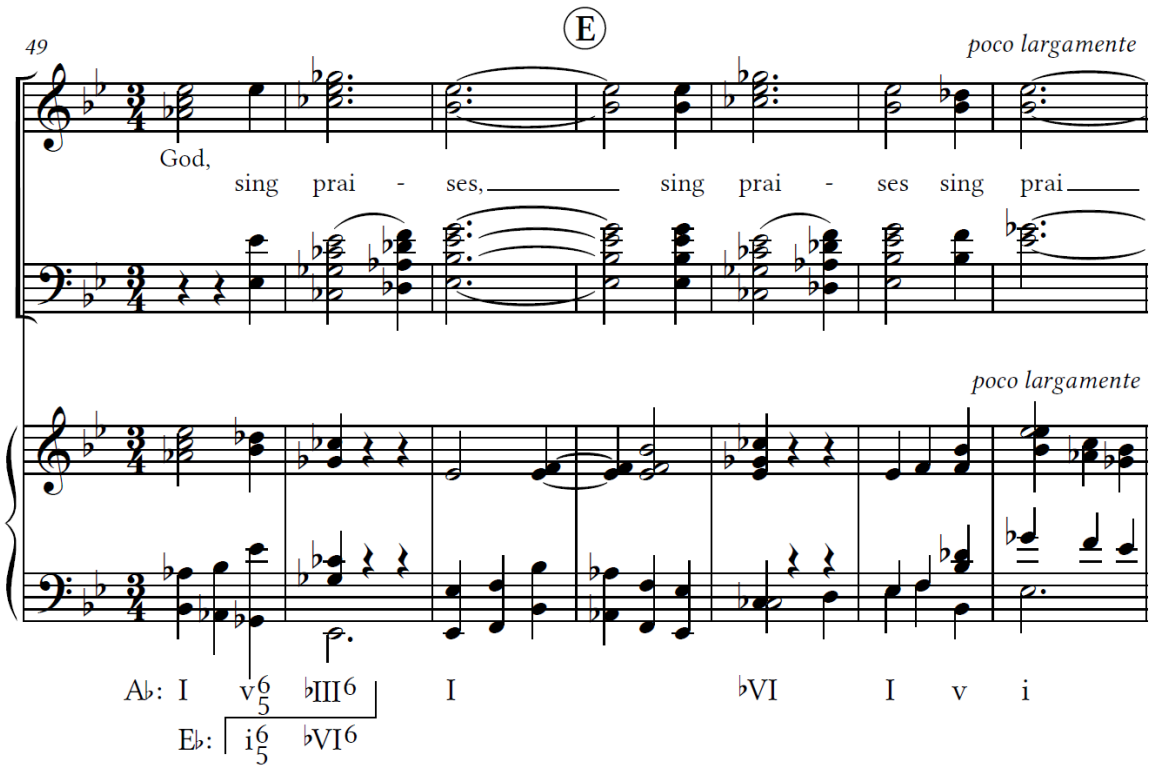


Example II.4. Holst, *Short Festival Te Deum*, mm. 32–35.

Chords related by third appear frequently in music by Holst and Vaughan Williams, with the result that an inflected or borrowed scale degree in a chromatically altered chord will form a false relation with its diatonic inflection. In some cases, the inflected pitch may be sufficiently represented to define a mode parallel to the primary mode, in which case the inflected pitch creates a modal duality or conflict. In example II.4, the duality would be between the Mixolydian and Dorian modes, but because of the ways in which the Mixolydian mode is reinforced in the passage, the duality presented by the Dorian $\hat{3}$ does not threaten the stability of the primary mode. In most cases, the modal conflict would resolve at a cadential arrival, where the progression would conclude with the pitches of the primary mode.

Example II.5 presents a second example exhibiting the type of chromaticism created by triadic alteration. The excerpt, from Vaughan Williams's *O, Clap Your Hands*, includes the end of a section in A♭-Mixolydian, which means that the first appearance of the altered chord would be heard as ♭III in that mode. However, the bass pattern in measures 51–52 and the repetition of the E♭ chord emphasize it as the new tonic. The C♭ chord thus acts as ♭VI in E♭, and functions as a pivot chord. Unlike Holst's *Short Festival Te Deum* in example II.4, however, the borrowed chord alters both $\hat{3}$ and $\hat{6}$, and when the E♭ tonic comes back as a minor chord in measure 55, the combination of factors presents a much stronger mode-type conflict. This conflict ultimately resolves in favor of the Dorian mode, a compromise between the previously conflicting modes.

When using quartal chords, Holst and Vaughan Williams typically stayed within the operating mode or key, but sometimes included alterations similar to the triadic alterations in order to maintain perfect intervals. These alterations can facilitate shifts

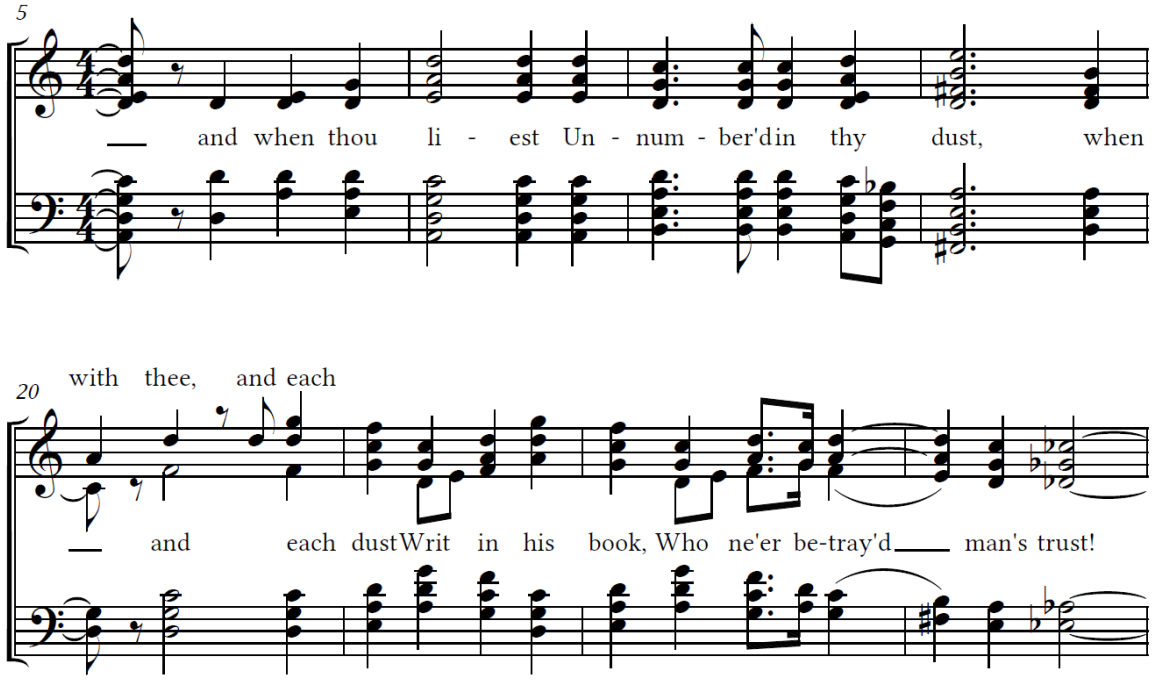


Example II.5. Vaughan Williams, *O, Clap Your Hands*, mm. 49–55.

in pitch collection, but frequently only embellish the existing mode. Chords based on fourths and fifths often appear in the two composers' music through the doubling of melodic lines at those intervals (see Short 1990, 401; Macan 1991, 162–164).

In *The Evening Watch*, Holst uses perfect fourths as the primary harmonic interval for most of the piece. Example II.6 shows two segments from *The Evening Watch* that demonstrate his use of quartal harmonies. In measure 5, an octave is gradually expanded until it reaches the five-note quartal chord on the downbeat of measure 6. The men's and women's sections of the chorus move in contrary motion in measures 6–8, but within each section, the parts are doubled in perfect fourths. The pattern of contrary motion continues in the second excerpt from measures 20–23,

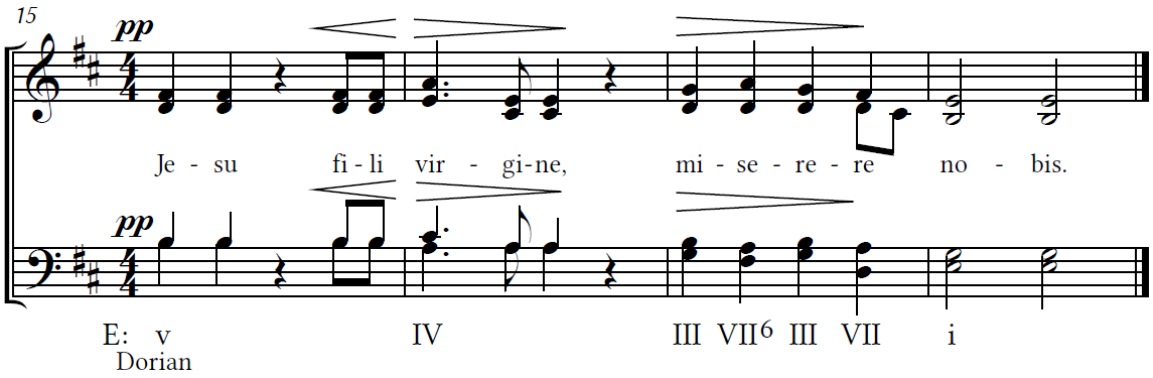
although the doubling in the men's parts has thinned to three voices and the women's parts include D-minor triads interspersed among the quartal harmonies. At the end of both excerpts, Holst exploits the possibility of pitch collection shifting using quartal harmonies. Measure 7 includes an embellishing chromatic pitch—the B♭, used to maintain perfect intervals while moving in parallel—and measure 8 introduces F♯, which continues as part of the pitch collection in subsequent measures. In measure 23, we again see a brief appearance of the F♯, but an abrupt chromatic drop on beat 3 changes the collection entirely, showing the composer's willingness to move in parallel, both diatonically and chromatically.



Example II.6. Holst, *The Evening Watch*, mm. 5–8, 20–23.

Because of the differences in chord quality and the absence of voice-leading requirements in modal music, the relationship between the tonic and other diatonic chords in a given mode is another area that differs from tonal music. Although the fifth scale degree still plays a prominent role in some modes, its role may not be as structural or as strong as in tonal music. The v chord in Mixolydian, Dorian, and Aeolian is minor, and in Phrygian it is diminished and therefore may not fill the role of "dominant" in the same way that the V does in a major or minor key.

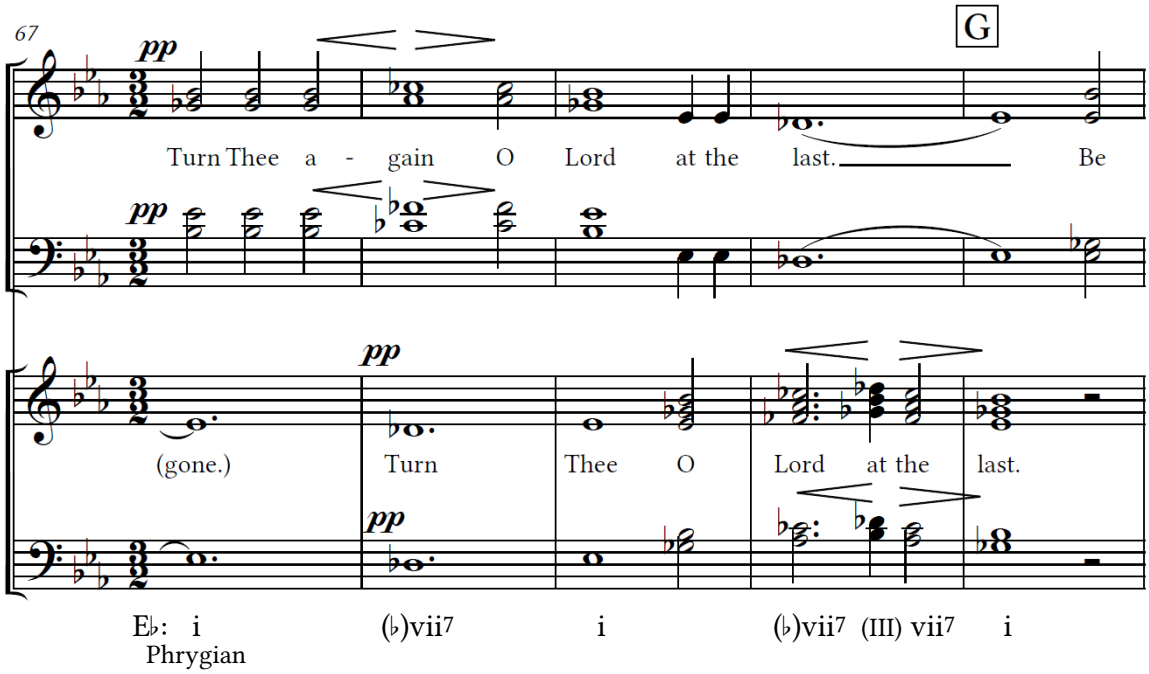
Example II.7, showing harmonic relationships in the dorian mode, comes from the third of Holst's *Four Old English Carols*. In this piece, the v plays a structural role by initiating the phrase, but VII fills the cadential role at the end of the phrase. The replacement of v with VII actually resembles tonal syntax in the exchangeability of the dominant and leading-tone chords (the implications of this for Schenkerian analysis will be addressed in chapter III). However, in tonal music, V was preferred because of the stability of the major triad, whereas the stability of VII in Dorian makes it an equally strong candidate for filling the "dominant" role as v.



Example II.7. Holst, "Jesu, Thou the Virgin Born" from *Four Old English Carols*, mm. 15—18.

The secondary harmonies also may not follow the same patterns as in tonal music. In example II.7, IV follows v instead of preceding it, but otherwise appears in a similar position in the phrase to where it might be expected if the phrase were tonal. On the other hand, the III chord's two appearances in measure 17 seem to help prepare the cadence, which is a role traditionally filled by ii or IV.

The excerpt from *Lord, Thou hast been our refuge* in example II.8, shows how Vaughan Williams redefined harmonic relationships in the Phrygian mode. Similar to Holst in the previous example, Vaughan Williams uses vii instead of v°, but in this case the v° does not appear at all and a seventh is added to the vii chord which completes the diatonic collection and provides a slightly dissonant contrast to the minor tonic. The III chord again appears immediately before the cadence, but because it only appears once



Example II.8. Vaughan Williams, *Lord, Thou hast been our refuge*, mm. 67–71.

with no metrical emphasis, it only embellishes the vii^{7}, and is not a functional part of the cadence.

In both of the previous examples, the chord built on $\hat{7}$ took the place of that on $\hat{5}$, and although this strategy is common, the possibility also remains of having other chords fill the structural function of a "dominant," such as the chords built on $\hat{4}$ or $\hat{6}$. With this many possibilities and the variety of interval structures and chord qualities available among the modes, harmonic relationships as strong as the tonic-dominant relationship in tonal music are rare and can generally only occur through repetition or contextual emphasis.

Since phrase structures and chord progressions are not governed as consistently by any single harmonic hierarchy as they are in tonal music, other factors—such as the immediate chord-to-chord intervals, melodic motions, and palindromic patterns—are more prominent in modal music. Progressions by third and second are more common than those by fourth or fifth, and since the former intervals can divide an octave symmetrically, one can occasionally find cyclical chord patterns in the music as well (see Macan 1991, 177–179; Boyer 1969, 62–66).

These characteristics apply equally to larger-scale modulatory plans as they do to local chord progressions, and the features discussed with respect to these composers' harmonic vocabulary likewise may be extended to formal units. The possibility of modal conflicts caused by changes of pitch collection or tonic was a fundamental part of Bates's dissertation and part of the reason for his "table of modal relations" (2009, 79). Macan makes the observation that the rate of modulation can be an important factor in defining formal sections (1991, 176). The formal design of Holst's *Short Festival Te Deum*

is shown in figure II.2. Macan's observation of the rate of modulatory change can be seen in the contrast between the beginning and ending sections, and measures 86—105, where tonal changes occur frequently. The relationship between the tonics of the two large sections is similar to a tonic-dominant key relationship, although the sections in G (the final tonic) are in Mixolydian, so the dominant would be minor. The intervals between the shorter tonic areas represent commonly observed root movements: progressions by third and step are most common, with one example of a perfect fourth/fifth and one tritone root movement. In the middle section of the piece, changes of chord and changes of tonal area are indistinguishable, since each tonal area only occupies a few measures, and those measures are often dominated by a single chord with little interior harmonic movement. In terms of Macan's idea of static versus goal-directed formal blocks, this means that at the foreground level, measures 86—105 contain a number of short static blocks, but at the level of the whole piece, those measures represent one single goal-directed block that contrasts against the more static outer sections.

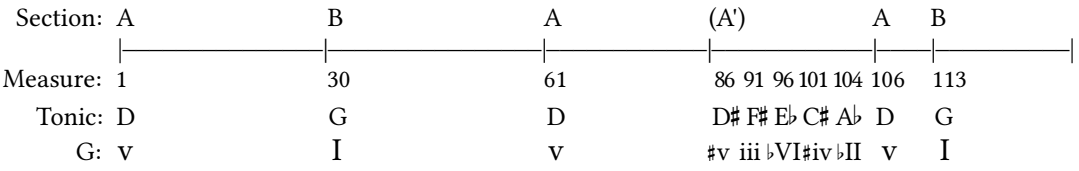
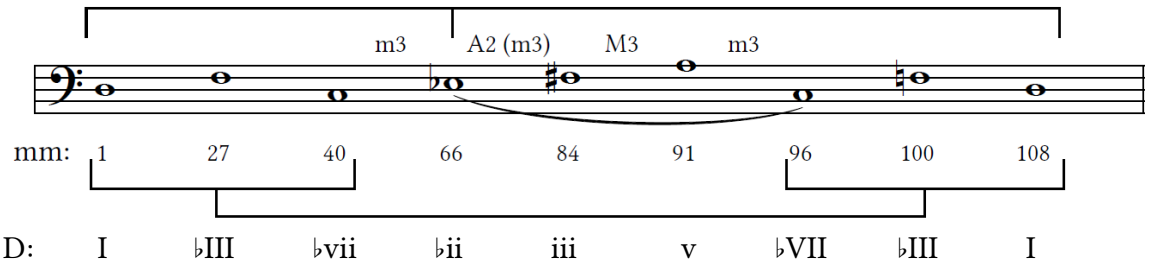


Figure II.2. Holst, *Short Festival Te Deum*, diagram of form and tonic areas.

Transitional sections similar to that in Holst's *Short Festival Te Deum* appear frequently in the composers' works. They are usually part of longer-range harmonic

movement, and in function are not much different from development or transition sections in tonal music. In a second example of this technique, the first half of Vaughan Williams's motet *Lord, Thou hast been our refuge* opens in D, then transitions through F to C, and then settles in E♭, which is sustained as tonic for some time. A short instrumental interlude follows the E♭ section, and passes through F♯, A, C, and F(♮) before returning to D for the re-entrance of the choir and the remainder of the piece. Example II.9 shows (using pitches on a staff) the tonic areas as they appear in the piece. The large structure of the piece could be described in terms of a D-F-C-(others)-C-F-D palindrome, as shown by the brackets below the staff, but the F area in the first part and the C area in the instrumental interlude are too brief and imbalanced to function as stable parts of the structure. Instead, the instrumental interlude travels in ascending minor thirds from E♭ to C (indicated in example II.9 by a slur), which quickly jumps to F. The transition in the instrumental interlude thus uses tonic movement by third, with one fourth, to transition from the E♭ section back to D. The length and stability of the E♭ section in the middle suggests the large-scale D-E♭-D palindrome-neighbor structure outlined by the brackets above the staff, with significant transitions between sections.



Example II.9. Vaughan Williams, *Lord, Thou hast been our refuge*, tonal centers.

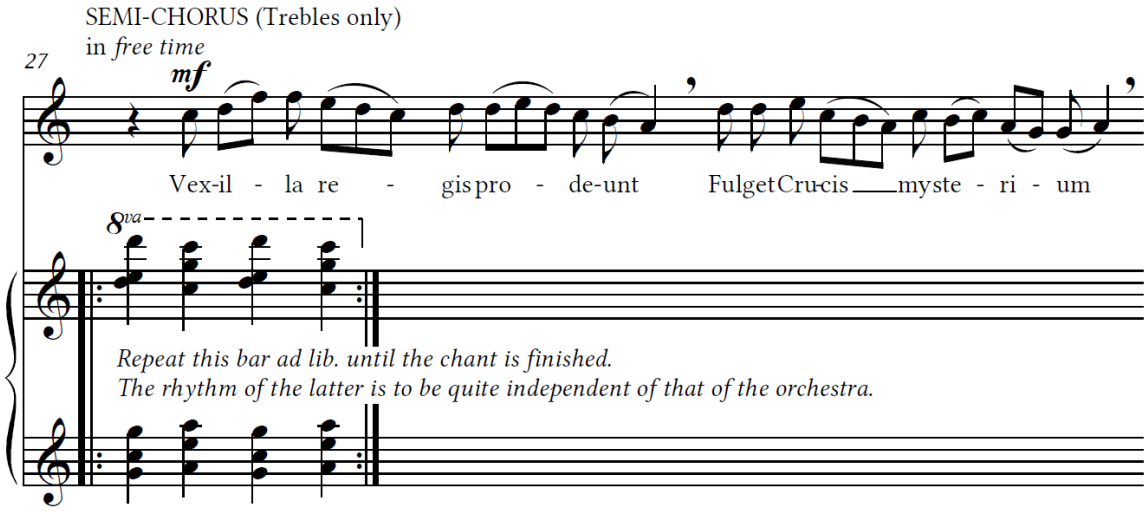
II.2.3. Other Pitch Collections and Harmonic Techniques

In addition to using the diatonic modes, Holst and Vaughan Williams also used pentatonic, whole-tone, and other types of pitch collections to a limited extent in their sacred choral works. Understanding their use of these collections will contribute to how we interpret prolongations in their music that involve them. As a subset of the diatonic collection, pentatonicism may be seen as being constructed by removing pitches from a diatonic set, or it may be seen as the foundation to which pitches are added to create diatonicism, depending on which collection one considers more fundamental (Dickinson 1972, 108). Similarly, Isted cites Vaughan Williams's use of the mode employing ♯$\hat{4}$ and ♭$\hat{7}$, and observes three possible derivations of the scale: 1. Bimodality (involving a mixture between Lydian and Mixolydian), 2. Diatonic with alterations based on the whole-tone scale, and 3. Whole-tone scale with alterations from diatonicism (1993, 438).[13] Regardless of which Vaughan Williams (or Holst) might have claimed, Isted's derivation possibilities reinforce the idea that either collection could be the source, and either the derived.

For the purposes of the current study, the mental process of getting from one collection to another is less important than understanding which collection is more stable and therefore more fundamental to the character and shape of the piece. One of Holst's prominent uses of the pentatonic collection in his sacred choral music appears close to the beginning of *The Hymn of Jesus* (see example II.10). At this point in the

13. Isted neglects to mention the possible derivation of the scale from acoustics (the overtone series). This would interpret the scale as being prior to the other collections, thus Lydian could be considered a derivation from the acoustic scale with a raised $\hat{7}$, and Mixolydian a derivation with lowered $\hat{4}$. Likewise, the whole-tone scale could be considered an extension of the lower part of the acoustic scale. Nevertheless, considering the issue discussed earlier in this chapter about the composers and their audience using tonality as a point of reference, the diatonic probably would have been the collection that they started with, the other collections being derived from it.

Prelude, the C-major/A-minor pentatonic has been established in the instrumental parts for a few measures before the semi-chorus enters with the *Vexilla regis* chant as shown in the example. The chant melody here contains the complete C-Ionian/A-Aeolian diatonic collection, and so Holst deliberately exploits the relationship between pentatonic and diatonic in this passage, and the only indication of one being any more important or stable than the other is the fact that the pentatonic accompaniment gets established earlier than the diatonic melody.

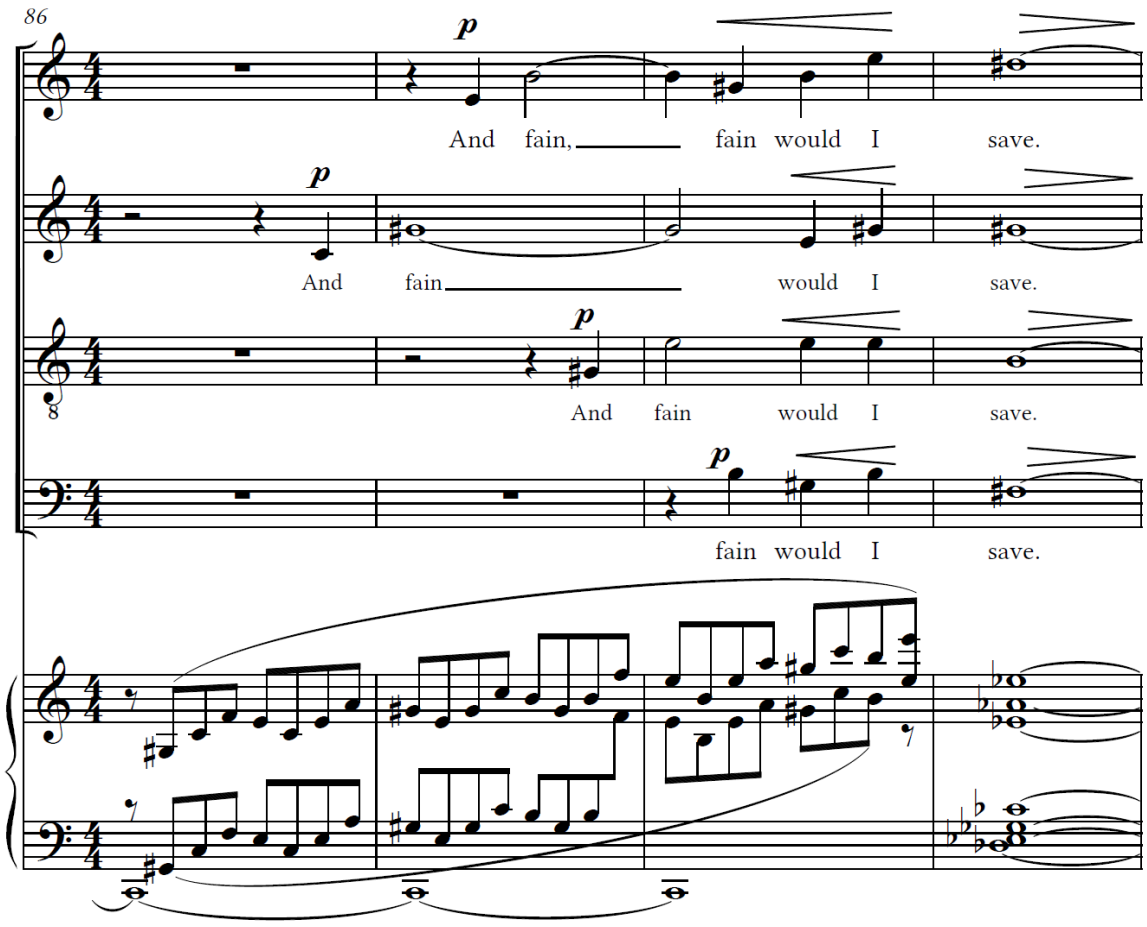


Example II.10. Holst, *The Hymn of Jesus*, m. 27.

This example also demonstrates the relationship between pentatonicism and Holst's triadic harmony. Oscillating chords like these are common, especially in Holst's music, and in this passage the two chords that form the pentatonic collection are based on triads with pitches added to them (C^{add2} and Am^{7}, respectively). One could even posit that the pentatonic collection is derived by adding notes to the triads, which

means that the triad provides the foundation for the pentatonic collection just as the pentatonic collection provides the foundation for the diatonic. This would establish a hierarchy of stability that could aid in determining the prolongational structure of a passage.

Another passage from *The Hymn of Jesus* that shows a collection forming from combining elements of a more fundamental nature is shown in example II.11. In measures 86–88, Holst establishes C as the fundamental tonic, but includes E, F, G♯, A, and B in the harmony above it. One possible derivation of this collection would be a

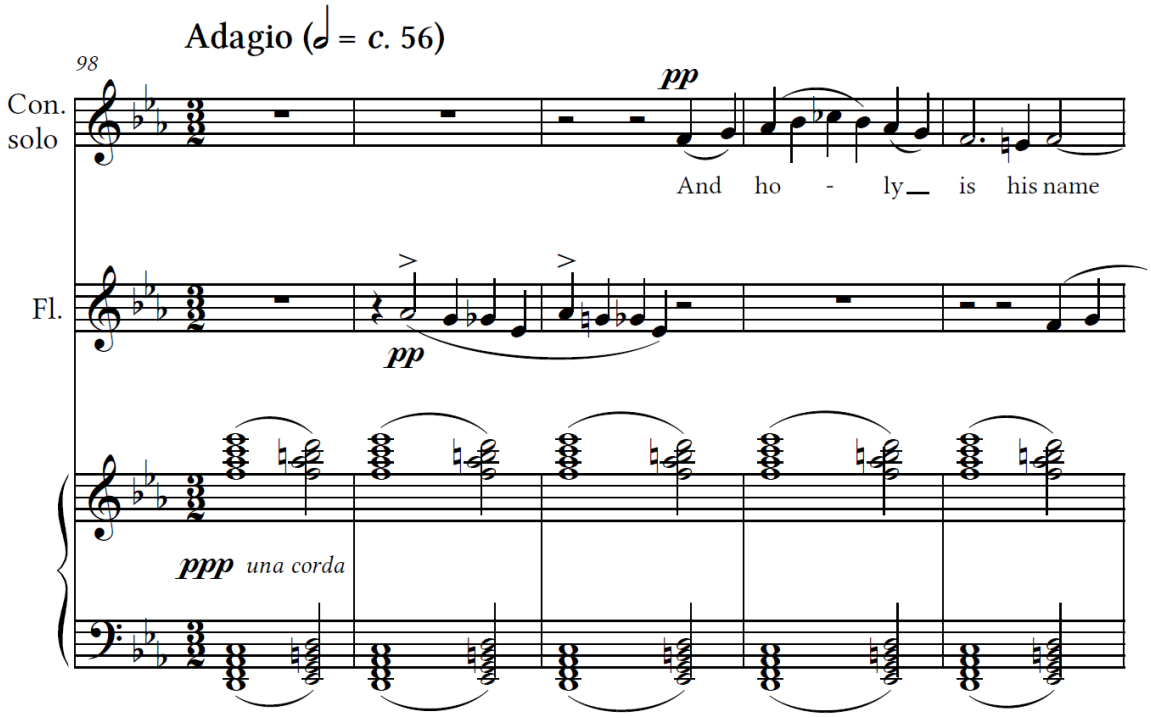


Example II.11. Holst, *The Hymn of Jesus*, mm. 86–89.

combination of F-major and E-major triads, with the fifth of the F-major triad in the bass position. Another possibility would be to interpret it simply as an E-major triad above a static C bass note, with other pitches serving as embellishments. The emphasis on the E triad in the choral parts favors the latter interpretation, and although the structural relationship between the C and the E-major triad cannot be determined without additional contextual information, this interpretation does at least provide a hierarchy between the harmonic notes and the embellishments.

Unusual collections feature prominently in Vaughan Williams's *Magnificat*, and although it may not always be possible to arrive at a hierarchy of derivation, contextual clues can help in determining the nature of the collection and how it functions in the piece. Example II.12 shows one passage where oscillations between two highly dissonant chords combine to form one of these peculiar collections. The longer, metrically-accented chord would establish the context within which the second chord would be interpreted, but since both contain such a large number of pitches, determining a tonic for the passage must be based on other factors, such as the melodic parts and the tonic(s) of the passages before and after the excerpt.

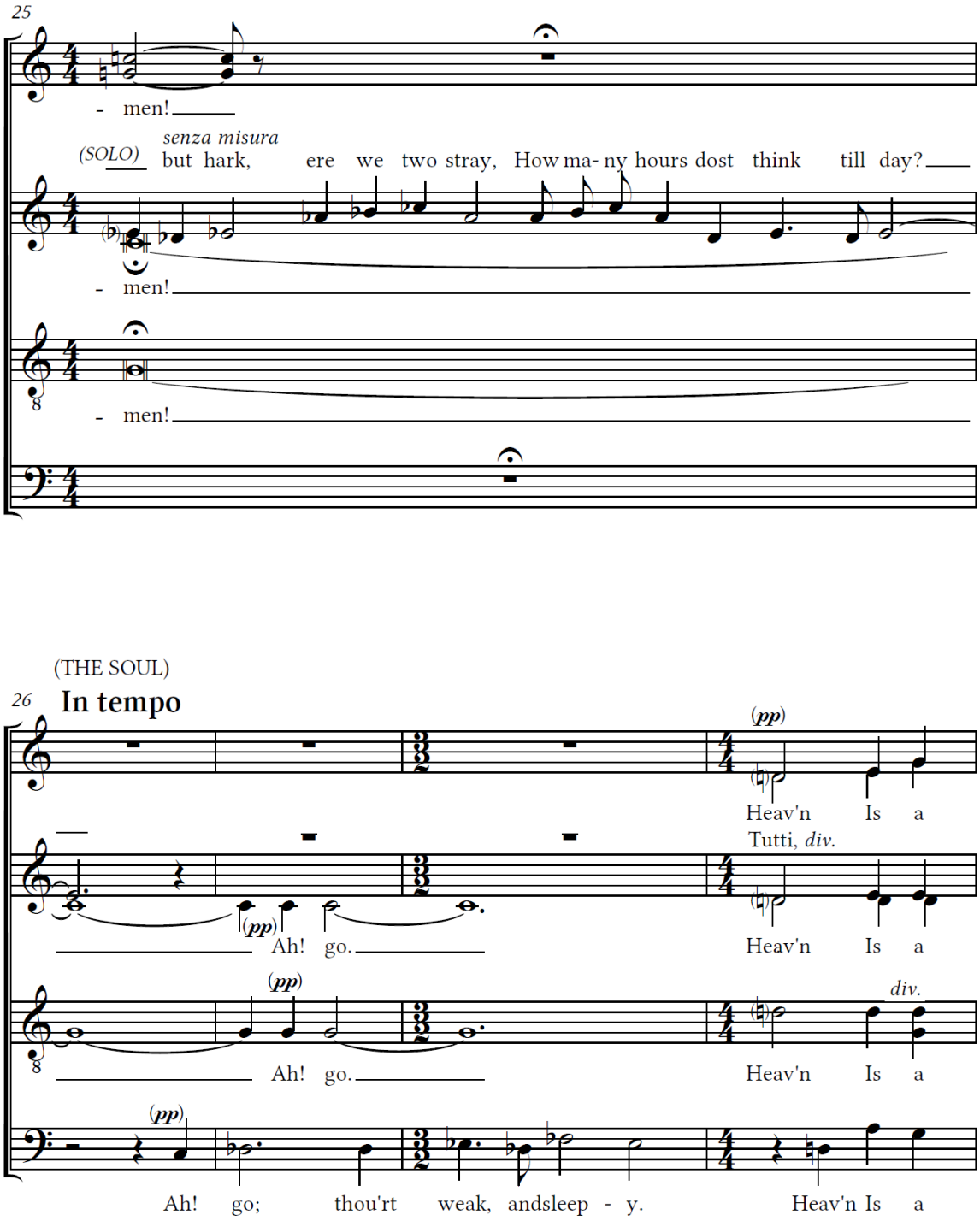
As the previous examples have illustrated, Holst and Vaughan Williams occasionally juxtaposed otherwise-unrelated harmonic or melodic elements. This practice included using bitonal, bimodal, or bichordal techniques in their music, and although extended bitonal passages are rare in their sacred choral works, bichords and short bitonal passages do appear in a few pieces. The relationships between bitonal or bimodal tonics tend to be similar to those found in chord progressions, with minor



Example II.12. Vaughan Williams, *Magnificat*, mm. 98–102.

seconds, major thirds, and tritones being the most common (Short 1990, 388; Warrack 1974, 733).

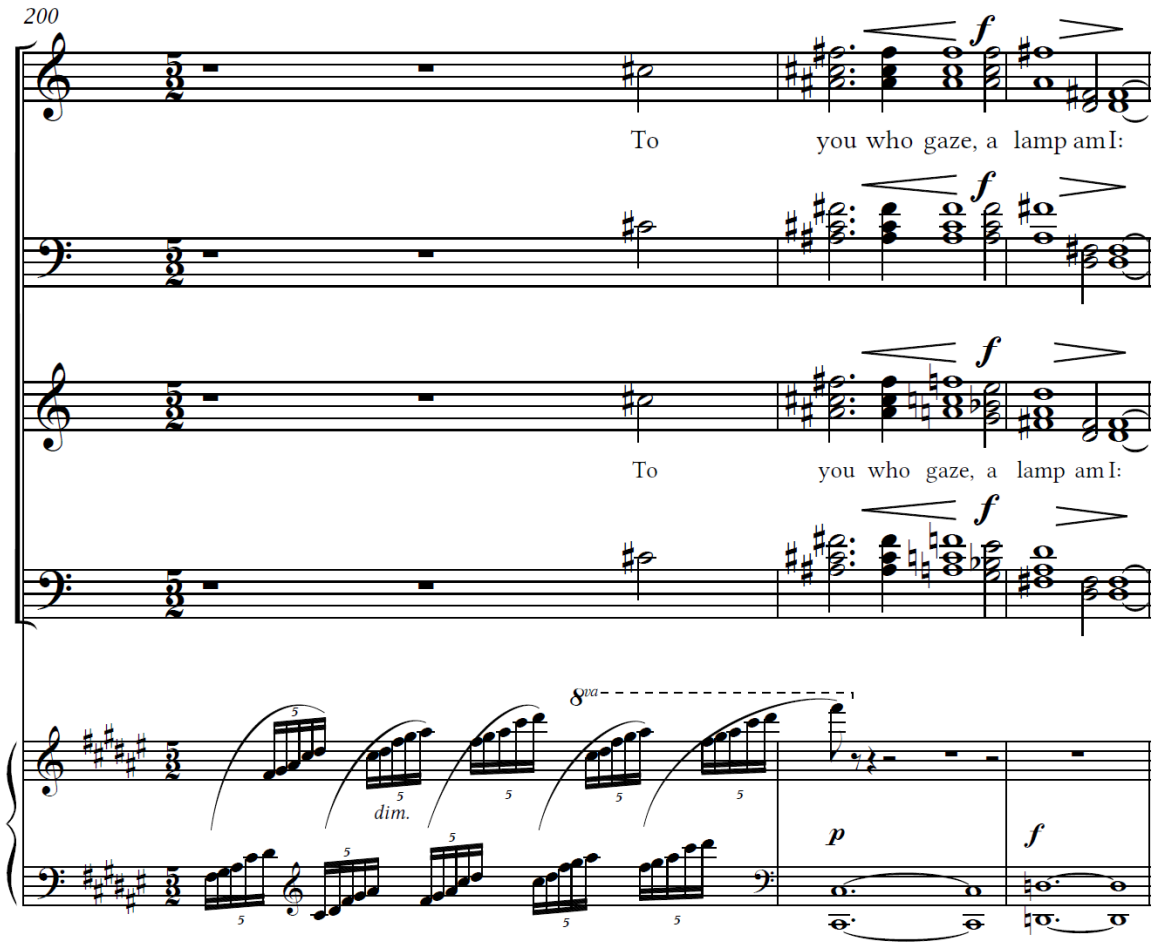
One bitonal passage appears as a contrasting interlude in the center of Holst's *The Evening Watch*. Example II.13 shows this interlude, as well as the first measure of the returning A theme. The held notes in the tenor and alto parts prolong the chord on the downbeat of measure 25 as a pedal point, and remind the listener of the previously-established pitch collection with no sharps or flats. Over that pedal, a solo line is sung using all flatted pitches. Some ambiguity exists in determining the tonic in the solo line, but the emphasis on E♭ at the beginning and ending of the line suggest that as a possibility. The bass continuation of the melodic line in measures 26–28 also emphasizes E♭ as the likely tonic for the melodic parts of the passage. Because of the



Example II.13. Holst, *The Evening Watch*, mm. 25–29.

textural differences between those melodic parts and the static pedal, one can clearly perceive two distinct centricities.

Holst's use of bichords in *The Hymn of Jesus* shows his artistry in balancing experimental techniques with singability. Example II.14 shows one such passage. Holst begins by strongly establishing the F♯-major chord as a continuation of the F♯ pentatonic appearing in the previous measures of the accompaniment. Similar to the pedal pitches in *The Evening Watch* (example II.13), one choir holds the F♯ chord, while the other choir descends stepwise in parallel triads to the D-major chord on the



Example II.14. Holst, *The Hymn of Jesus*, mm. 200–202.

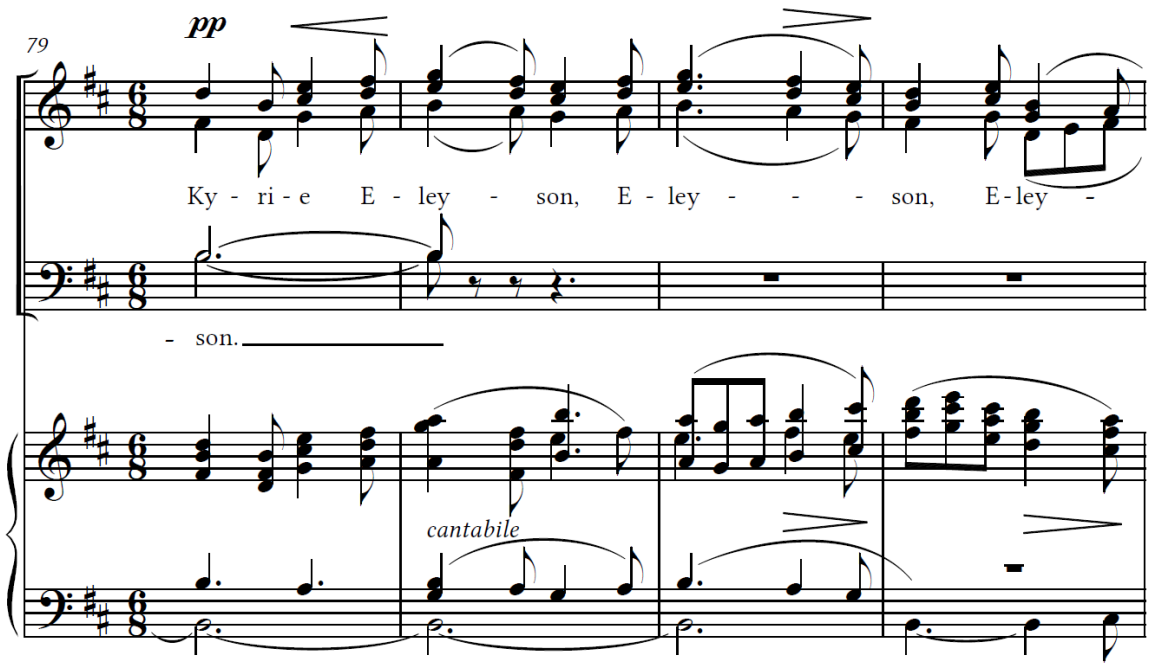
downbeat of measure 202. To provide a resolution in the upper choir, Holst drops the C♯, adding D when the choir descends on the third beat. Both choirs thus make the transition from F♯ to D, but the first choir does so directly (one could say by means of voice leading) while the second choir progresses stepwise in parallel motion. The bichords in the middle of the transition create a dense and dissonant mass of sound while the stepwise motions used to create that effect make the passage easier to execute.

II.2.4. Counterpoint

Some aspects of Holst's and Vaughan Williams's contrapuntal techniques have already arisen in the examples I have given of their harmonic techniques, but they require more explicit description than I have given them thus far. Macan actually cites what he refers to as four different "stages" that their contrapuntal technique underwent, and although he attributes a rough chronological order to them, the techniques represent different aspects of their style that the two composers may have used at any time. These stages include doubling a melodic line forming parallel triads (often accompanied by a pedal or ostinato, see examples II.1 and II.4), combining parallel chord streams with other textural elements (see example II.5), creating patterns of tension and relaxation through additional textural experimentation (the oblique triad motion in example II.14), and counterpoint based on independent lines (see example II.11) (Macan 1991, 44–46). In Vaughan Williams's and Holst's sacred choral works, chords do frequently move in parallel, doubling melodic lines, but complete parallel chords typically appear only in short phrases or motives rather than throughout lengthy sections.

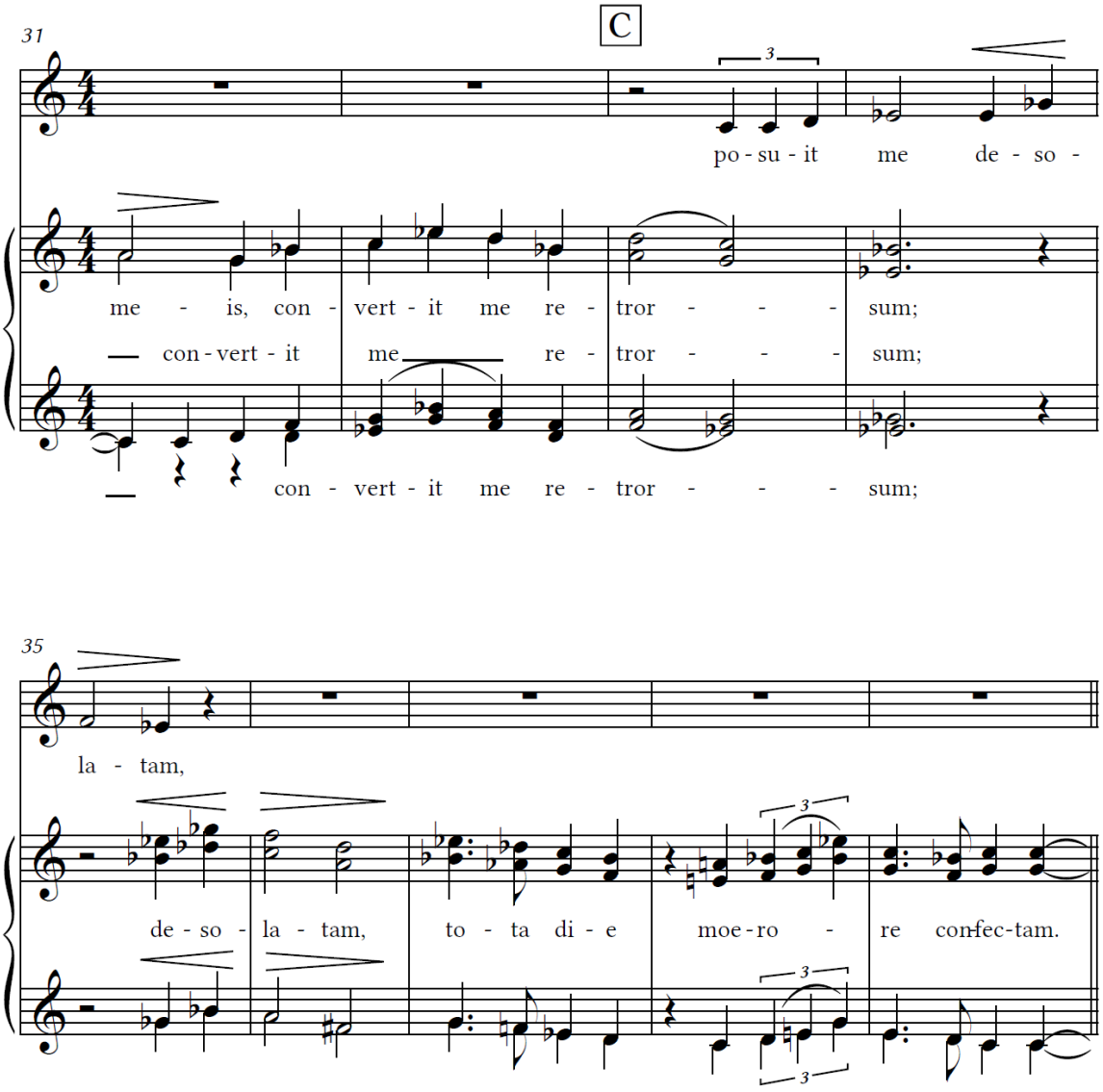
In addition, streams of parallel chords almost always have some other musical element present. Even in his description of the composers' contrapuntal stages, Macan pointed out the use of pedal points, embellishing tones, additional chord streams, and other devices in combination with the parallelisms. Many of the previous examples contain segments with parallel chords, and all of those with parallels include some other textural layer that either remains static or moves contrary to the chord stream.

Measures 79–82 of Vaughan Williams's "Christmas Hymn," shown in example II.15, contain one of these parallel chord streams in the upper choral parts, but this passage includes both a pedal bass and an additional melodic layer in the highest register of the keyboard that counterpoints against the parallel chords.



Example II.15. Vaughan Williams, "Christmas Hymn" from *Three Choral Hymns*, mm. 79–82.

As a stark contrast to the examples previously cited, Vaughan Williams's *O vos omnes* features triads moving in parallel throughout the piece, with other elements only combining with them intermittently. In some places, such as measures 31–33 (shown in example II.16), the triads move in parallel diatonically, with the quality of the triad changing accordingly. In other places, Vaughan Williams retains the quality of the



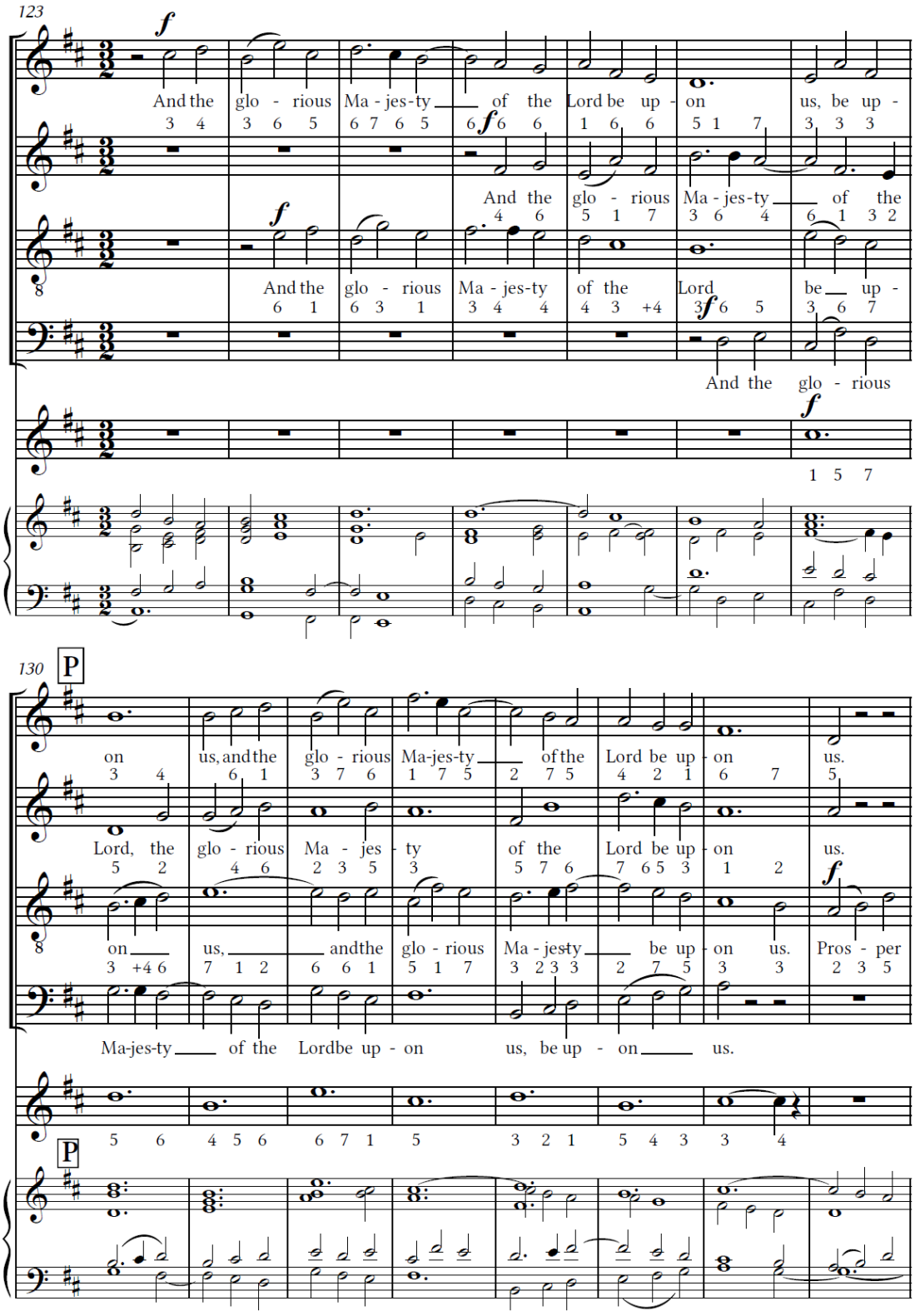
Example II.16. Vaughan Williams, *O vos omnes*, mm. 31–39.

triads, and moves them chromatically following the melodic intervals of the highest voice. This can be seen in example II.16, measures 35–39. By using changes in triadic position, switching between diatonic and chromatic parallels, and altering the quality of the triads, Vaughan Williams was able to alleviate the monotony of continuously using the same contrapuntal technique.

While parallelisms form a distinctive part of these composers' contrapuntal techniques, polyphony featuring independent voices also appears frequently. Both Vaughan Williams and Holst held sixteenth-century English composers in high esteem,[14] and in many cases borrowed their imitative techniques. Kimmel (1941) describes Vaughan Williams's use of sixteenth-century techniques in his Mass in G, but the same techniques reappear in a number of other works. The final section of Vaughan Williams's *Lord, Thou hast been our refuge*, gets inaugurated by a series of imitative entries in the choral parts that clearly show the influence of Renaissance-style polyphony (see example II.17). To further enhance the reference to sixteenth-century techniques, Vaughan Williams moves the melody of the hymn "O God Our Help in Ages Past," which he had used earlier in the composition, to the trumpet part in long notes as a *cantus firmus* around which to weave his polyphony.

This excerpt features a number of additional characteristics that help us understand Vaughan Williams's contrapuntal writing. In general, he follows sixteenth-century practice in maintaining independence of voices and even exhibits care with parallels and perfect intervals. However, dissonances are occasionally approached and resolved with some freedom (such as the alto F♯ on the third beat of measure 127), and

14. See, for example, Vaughan Williams's essay on British Music in R. Vaughan Williams and Manning (2008), pp. 43–56.



Example II.17. Vaughan Williams, *Lord, Thou hast been our refuge*, mm. 123–137. Numbers below each staff indicate intervals above the lowest sounding pitch.

the intervals between imitative entries differ from what one would expect to see in a sixteenth-century piece. Even though the accompaniment generally reinforces the choral parts, its presence adds much to the texture, especially in the initial entries where individual chorus sections sing over an already filled-out accompaniment.

Although polyphonic writing like that in *Lord, Thou hast been our refuge* appears more frequently in Vaughan Williams's music, the general characteristics of his contrapuntal writing apply to Holst's music as well. Holst tended to use bass ostinati more often than Vaughan Williams, which may point to the influence of Henry Purcell (Macan 1993, 91), but he does so generally to provide a harmonic context over which he used a variety of choral textures. These composers both used a wide variety of textures in their sacred choral music, including any combination of dependent and independent voice parts, and so when it comes to assessing Schenkerian middleground and background structures, we will need to take into consideration the type(s) of counterpoint used in any given passage or piece.

II.2.5. Formal Structures

Holst and Vaughan Williams did not build their formal structures around the kinds of motivic processes or established formal procedures that were used in the nineteenth century.[15] Instead, as Macan has pointed out, they often sectionalized their forms into blocks, using different textures and different levels of harmonic motion in each block. The composers used motives to both unite and delineate formal blocks, or

15. Greene notes that thematic transformation, a process fundamental to Romantic formal structures, gets replaced by what he calls a "perceptual transformation of the various gestures as they undergo a changing set of interrelationships and juxtapositions" (Greene 1992, 266). Macan also argues that motivic processes fill a different role than in tonal music, that is to "unite harmonically-different blocks" (Macan 1991, 97).

musical layers within those blocks, rather than as a continuous developmental process. In the sacred choral music, these sectional blocks may not contrast as steeply as Macan's descriptions suggest, but they do frequently use alternations between performing groups or between harmonic regions, which provides clear distinctions between formal sections. In choral music, the form of the text also influences how the form of the piece unfolds, and therefore formal structures in the choral music will differ to some extent from those in the instrumental music. Because prolongational structures tend to align with the formal structure of a piece, knowing the formal practices of Holst and Vaughan Williams will enable us to predict long-range prolongational patterns in their music.

In some works, Holst and Vaughan Williams used alternations between a soloist and the chorus as a primary formal device. The solo used in *The Evening Watch* (see example II.13) separates two full chorus sections. Holst's carol *Lullay my Liking*, a more extreme example, contains five verses that alternate with a chorale refrain. A soloist sings four out of the five verses, with the chorus singing the fourth verse. Although they are not as structurally segmented as *Lullay my Liking*, Vaughan Williams uses alternations between a solo and the chorus as part of the formal shape of his *Fantasia on Christmas Carols*, and *O vos omnes*. While the reason for doing so may come partly from a desire for reprieve from a constant choral texture, Holst and Vaughan Williams probably learned the technique from the late sixteenth-century verse anthems that use the same kinds of alternation patterns.

Even in pieces where changes of texture or ensemble define the formal layout, other factors—such as the contrasts between harmonically static and dynamic blocks

observed by Macan—also help sharpen the lines between formal sections. At the largest formal level, goal-oriented—or at least mobile—harmony occurs most often in the transient interior of a piece, which figure II.2 and example II.9 demonstrate for the *Short Festival Te Deum* and *Lord, Thou hast been our refuge*. Beginning and ending sections typically exhibit more harmonic stability, often prolonging a single tonic area, and thus can be said to be harmonically more static. At a more local level, goal-oriented and static harmony may appear in any of the sections, and in some passages in the sacred choral music, the distinction between "static" and "goal-oriented" becomes blurred.

Figure II.3 shows a timeline similar to that in figure II.2 for Vaughan Williams's *O, Clap Your Hands*. Even though the piece opens with a substantial section in the tonic key, the harmonies do not firmly establish that tonic until it reappears in measure 62. Instead, the harmony in the first section moves around until it reaches A♭ in measure 30. The B section uses harmonic repetition along with a repeating melodic pattern to strongly establish A♭, a secondary tonal area one whole step lower than the opening. The piece returns to mobile harmony in measure 51, with the establishment of E♭ as shown in example II.5, but continues thematic material from section B. The harmonic motion in this section leads back to B♭, and this time the tonic gets established more strongly as B♭-Mixolydian with static, B-themed material in measures 62–75.

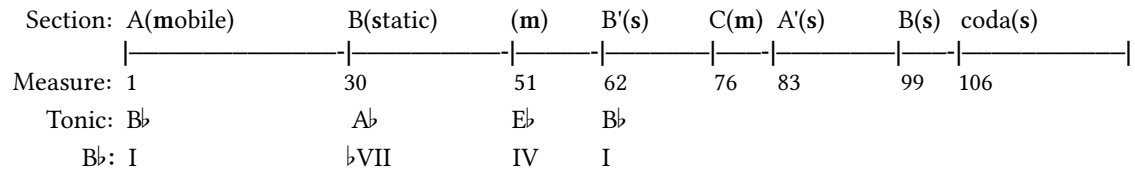


Figure II.3. Vaughan Williams, *O, Clap Your Hands*, diagram of form and tonic areas.

Mobile harmony reappears beginning in measure 76, culminating in the tonal secondary dominant resolution shown in example II.1. The tonicized V in this case actually inaugurates a section of diatonic polyphony in B♭-Ionian that builds to a local registral climax. The returning B material in measures 99—105 once again uses static harmony in B♭-Mixolydian, this time rising to a higher registral climax in measure 106. The coda uses bichordal harmony within the B♭-mixolydian mode in order to maintain harmonic interest while providing a melodic and thematic conclusion to the piece.

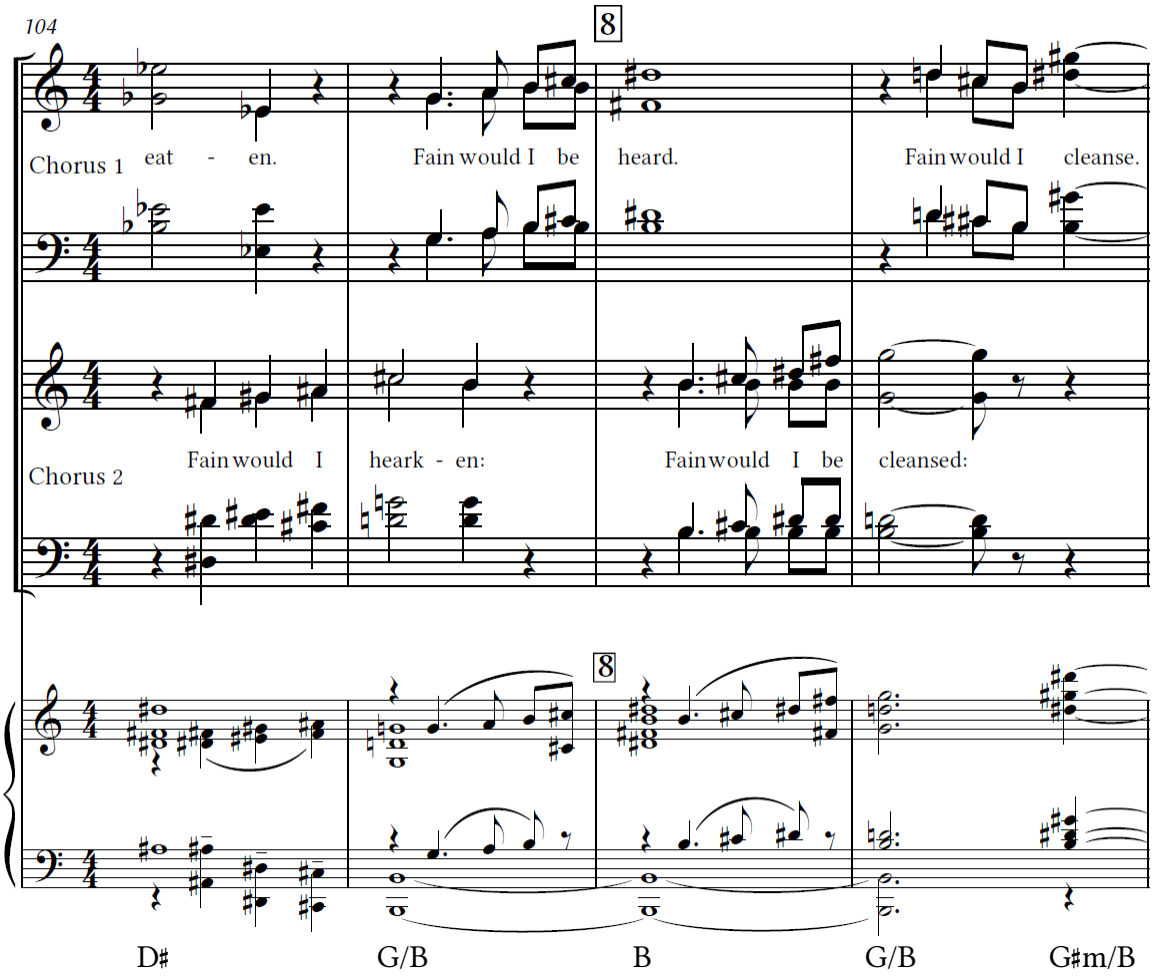
We can thus see that *O, Clap Your Hands* does alternate between harmonically mobile and static sections, but some of the sections exhibit harmonic activity that blurs the distinction between what might be considered "static" or "goal-oriented." The opening stays in the B♭ tonal area, but the tonic chord does not appear prominently, making it more harmonically mobile than one would expect. The B-themed sections all contain relatively static harmony, but the first of them reverts to mobile harmony under the same theme before transitioning back to the original mode. Finally, three "static" sections appear consecutively at the end of the piece, but changes in texture and melodic content not only separate, but also provide forward motion through these sections.

Holst's *The Hymn of Jesus* contains segments using both static and mobile harmonic structures, but Holst assembled the segments in a way that makes their function at different structural levels change. A loose ABA' structure governs the whole work, with some harmonic motion within each of the major formal divisions. The outer sections tend to have longer subdivisions and slower rates of harmonic change while the B section contains frequent shifts and almost continuous harmonic activity, but from

a large-scale perspective, the piece remains harmonically mobile throughout. Smaller formal blocks range from around twenty measures down to only two or three measures, so in many parts of the piece, a series of harmonically static areas may appear before one arrives at an area of mobile harmony.

Example II.10 shows the first part of a longer static section, and even though the harmony includes mild dissonances, it creates an effect of calmness and serenity, with little drive to move forward to other harmonic areas. Measures 104—111 (example II.18) show a transition between blocks from the interior of the composition, where measure 104 completes a segment with mobile harmony. The pedal bass in measures 105—107 would normally characterize static harmony, but the harmonic changes above it compromise that stasis, weakening the distinctions between static and mobile harmony. The arrival in measure 109 on an E-major chord (E-pentatonic in the accompaniment) brings back some of the serenity of the pentatonic collection in the *Vexilla regis* chant (measure 27, example II.10), but this time the serenity only lasts four measures before the harmony starts moving again. Within a larger context, these measures only provide a brief pause in the overarching harmonic movement.

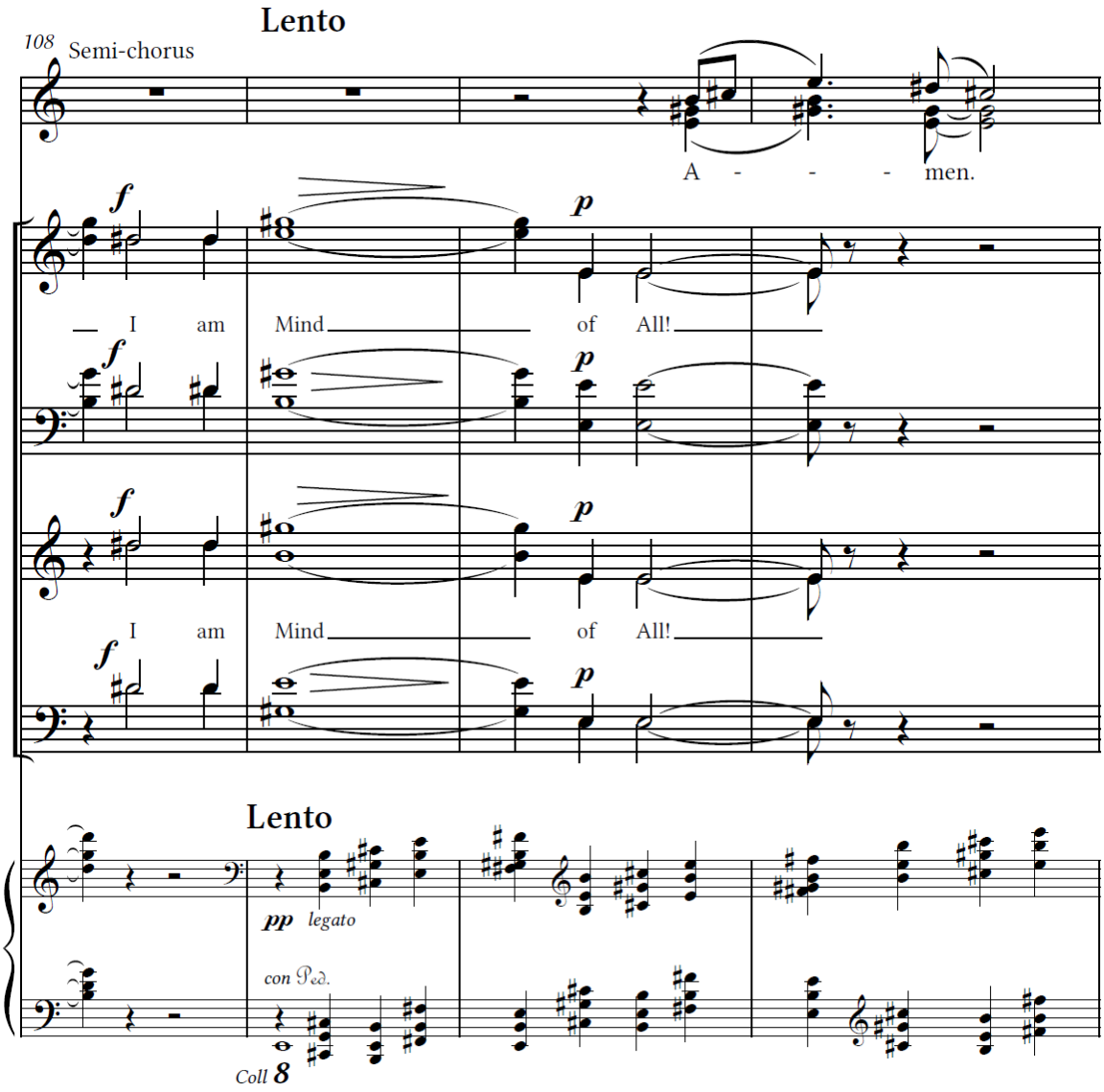
While the previous examples show that Holst and Vaughan Williams did use alternations of harmonically static and mobile blocks, their primary form-generating device for sacred choral music consisted of following and trying to exemplify the form of the text. In Vaughan Williams's *O, Clap Your Hands*, each of the formal sections given in figure II.3 coincides with one or two verses from Psalm 47, with the exception of the coda, which only repeats the words "sing praises." I have reserved an analysis of the text structure in *The Hymn of Jesus* for chapter V, but the most significant formal



Example II.18. Holst, *The Hymn of Jesus*, mm. 104–111. (continues on the next page)

divisions in that piece also appear where structural shifts or wording changes occur in the text.

Some pieces, particularly in Holst's works, repeat music with varying degrees of exactness in the manner of a modified strophic form. Typically, the composers coupled such forms with poems or versified texts that can be used in a repeating musical environment. Holst's *This Have I Done For My True Love* uses a strophic Medieval poem with eleven stanzas. With the exception of the last, Holst sets the stanzas in pairs, and



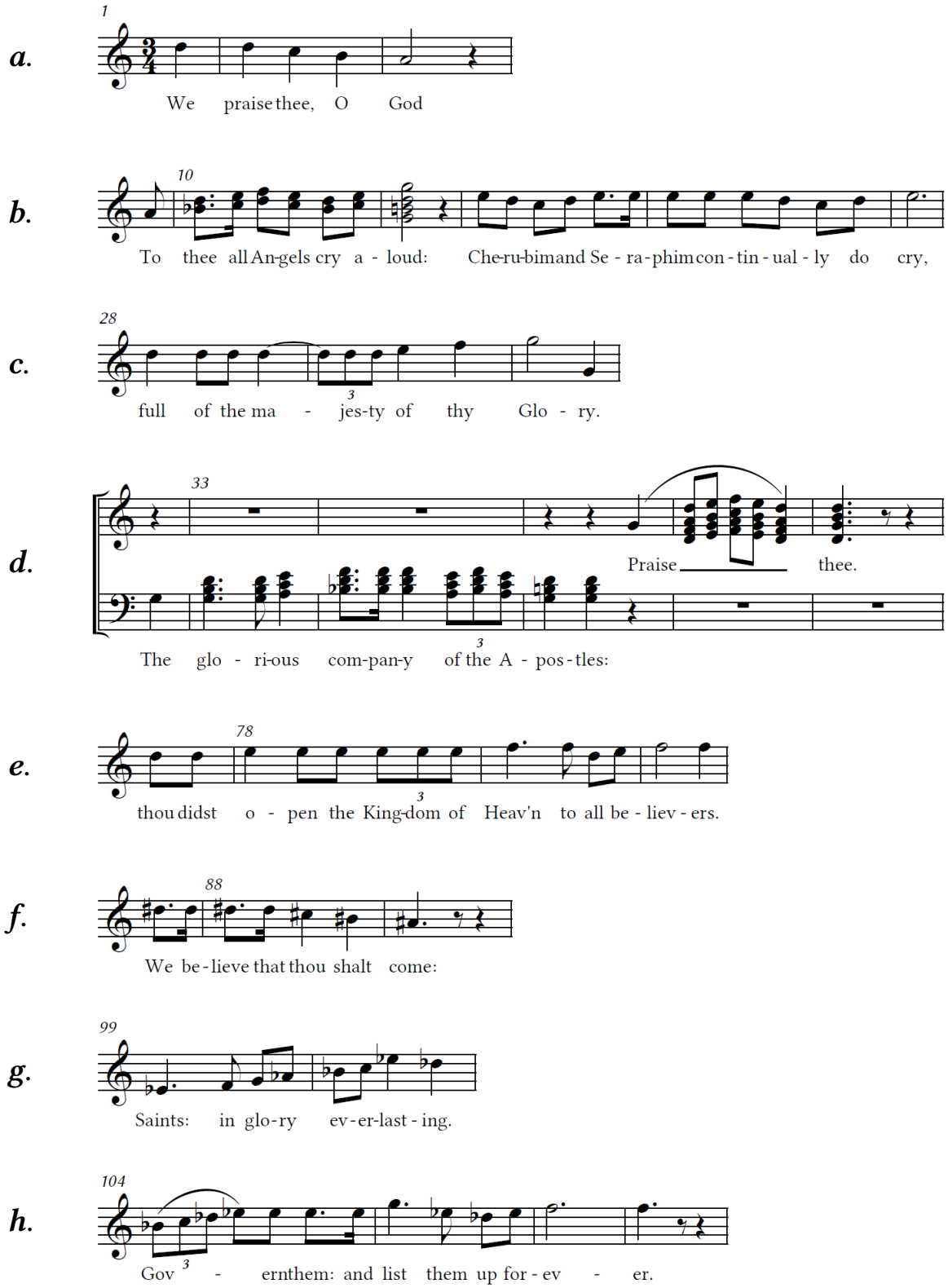
(G♯m/B) E (pentatonic)

Example II.18. (continued)

in order to maintain some variety, Holst varies how he presents the tune in each stanza so that it may be in different choral parts, different textures, or with different harmonies in each strophe. Holst also set the two psalms (Psalm 86 and Psalm 148) strophically, but Holst exercises a fair amount of freedom with how he sets the strophes. Psalm 86

includes a vocal solo that breaks up the formal pattern in the middle of the piece, and Psalm 148 uses a poetic paraphrase of the Biblical psalm by Francis Ralph Gray, which Holst treats to a variety of textures. Even though Vaughan Williams used strophic forms less often, *The Old Hundredth Psalm* is one piece where he maintained a strophic structure.

Even where strophic repetitions do not govern the structure of a composition, Holst and Vaughan Williams frequently brought back thematic material from the beginning at the end of a piece to form a general ABA structure. Manning even describes some of Vaughan Williams's forms as deriving from Sonata form, although actual Sonata-like forms are uncommon in the composers' choral music. Example II.19 shows the main melodic themes used throughout Holst's *Short Festival Te Deum*. The main sections have already been given in figure II.2. Themes *a* and *b* form the main corpus of the A sections, while theme *c* transitions between A and B. The B sections consist mostly of themes *d* and *e*. The last three themes—*f*, *g*, and *h*—all appear in the central part of the piece. The motivic relations between the themes point to a kind of thematic development that runs through the piece: one could derive theme *d* out of theme *b*, and theme *c* is an inversion of theme *a*. Theme *f* clearly also comes from *a*, but the fact that themes *e*, *g*, and *h* all seem to be hybrids of themes *a* and *b* tells us that even though Holst may not have used thematic development as a primary formal device, it nevertheless appears prominently in this piece. The A and B sections returning at the end of the piece in their original modes after having undergone some kind of development in the middle sections bears the lingering influence of Sonata form on this piece, even if the connection is distant.



Example II.19. Holst, *Short Festival Te Deum*, main themes.

Vaughan Williams also used a rounded formal principle in *Benedicite*. He uses two main themes in the first part of the piece, and even though he does not treat them developmentally in a Sonata-like manner, he does reuse both themes at the end of the piece, which gives it a sense of formal balance and brings back the exuberant character of the opening. *Benedicite* also exhibits a number of the other formal features that I have described, but discussion of these features will be reserved for the analysis in chapter IV.

Holst's and Vaughan Williams's most significant formal features seem to include sectionalization based on texture and harmonic motion, formal repetitions, and text-based formal designs. These characteristics all have a significant role in the prolongational structure of a composition, which will be discussed further in section III.3.4.

II.2.6. A Brief Stylistic Comparison

In this discussion, a few stylistic differences between Holst and Vaughan Williams have come out. Based mostly on the composers' writings, it would seem that Vaughan Williams stayed more closely tied to nationalism and folk song elements, and although Holst used folk materials throughout his works, he does not seem to use them as explicitly or prominently as Vaughan Williams. Holst tended to use ostinato basses more frequently, while Vaughan Williams seemed to prefer continuously moving bass lines. Differences between their melodic styles were noted by Macan, but in spite of those differences, both composers primarily use stepwise melodies with skips or leaps

that outline the supporting harmonies. In that respect, their melodic techniques are sufficiently similar to suit the present purposes.

In most realms, Holst more freely indulged in experimental techniques, which we can see most especially in *The Hymn of Jesus*, where Holst used a relatively obscure text, frequent non-diatonic pitch collections, and prominent bitonality. However, as we saw in Vaughan Williams's *Magnificat*, the older composer was not afraid to use whatever pitch collections suited his expressive purposes. For that reason, in the present study we will not interpret comparisons between Holst's *The Hymn of Jesus* and Vaughan Williams's *Benedicite* as demonstrating differences between each composer's style, but rather as a spread of techniques either composer might have used.

II.3. Conclusions: Towards an Analytical Methodology for the Sacred Music

Previous writers have observed many, if not most, of the characteristics that I have described in this summary of the composers' styles, but most writers either gave broad summaries of the music or focused their writings on instrumental music. In my analysis, I focus on aspects of their style as manifested in the sacred choral works, which form a distinct subgenre within their overall output. In addition, I only covered characteristics that pertain directly to the Schenkerian analytical methodology, which means that I have omitted describing their rhythm and meter, orchestration, and text-setting, in order to hone in on pitch collections, harmony, counterpoint, and form. In chapter III, I will investigate how the composers' techniques in each of these musical domains affect how one interprets the music in terms of long-range voice leading and prolongation.

CHAPTER III

APPLYING SCHENKER'S ANALYTICAL TECHNIQUE

From the previous discussion of the musical style of Holst and Vaughan Williams, it has become apparent that analyses of their music must take into account both tonal and post-tonal elements. Pieces like Holst's *Short Festival Te Deum* and *The Evening Watch* use patterns of departure-and-return that might be seen in tonal music, but have clear non-tonal elements, including modal harmonic relationships and bitonality. This means that one can perceive clear prolongations, but those prolongations have a different character than tonal prolongations. Long-range progressions and static blocks, as seen in Vaughan Williams's *Lord, Thou hast been our refuge* and Holst's *The Hymn of Jesus* also show evidence of prolongation and background voice-leading patterns, but with significant departures from tonal norms. Because pieces using diatonic modes and other collections outside of the tonal system do not always exhibit consistent hierarchies or give in to the same directional progressions as tonal pieces, middleground and background structures may move more freely than in Schenker's tonal analyses. The ranging levels of centricity and the incorporation of tonal elements mean that the music of Holst and Vaughan Williams involves gravitation towards pitch-class goals, but with varying degrees of strength.

This chapter, then, will reexamine Schenker's analytical method in terms of Holst's and Vaughan Williams's compositional style as described in chapter II. I will begin with a summary and evaluation of previous research extending Schenkerian analysis beyond tonal norms, which includes some publications on late nineteenth-century music, early twentieth-century post-tonal music, and a few publications dealing

with pre-tonal repertoire. I will then proceed to describe aspects of the analytical methodology as it has been applied in this context. Triads still form the basic, stable harmonic unit, but the frequent use of other diatonic and non-diatonic chord structures requires a reassessment of what constitutes harmonic stability in this context. Melodic shape and surface-level counterpoint sometimes follow tonal norms, but frequently do not, meaning that linear motion and counterpoint in the middleground and background also may or may not conform to tonal expectations. Formal processes also may differ from those in tonal music, which means that the anticipated prototypes will also need to be reevaluated according to Holst's and Vaughan Williams's formal practices. Much of my discussion of stability in these musical domains will parallel the style descriptions in chapter II so that specific elements of the composers' styles can be addressed in terms of the analytical method.

III.1. Research on Pertinent Extensions of Schenkerian Analysis

III.1.1. Heinrich Schenker and Tonal Deviations

As a starting point, I would like to address some aspects of Schenker's own writings. Heinrich Schenker initially put forth his ideas on the modal and tonal systems in *Harmony* ([1906] 1954). In his effort to promote eighteenth- and nineteenth-century musical style, Schenker cites three reasons for preferring the tonal system over modality. The first is historical: composers and artists in the past gravitated towards the tonal system from modality, showing that the tonal system must be seen as superior (Schenker [1906] 1954, 45–46). Even during Schenker's lifetime, however, artists began

moving away from tonality, showing the problems associated with relying on human behavior as a determinant of value.

The second reason for preferring tonality over modality has to do with motivic relationships, especially those used in fugue subjects. Schenker observes that in the major and minor keys, the tonic and dominant have the same quality, which means that a composer can maintain a consistent quality between tonic and dominant settings of a single melodic idea (Schenker [1906] 1954, 55). This idea assumes a preference for similarity between two parts of the collection that have a particular intervallic relationship. In music that involves other collections, including modal music, other intervallic relationships may be just as strong (such as between tonic and subtonic in Dorian), and therefore motivic connections between the tonic and other parts of the collection may be preferred. One might also question the necessity of having a consistent quality between the tonic and dominant, since many composers have found changes in the quality of a motive or melodic fragment to be a valuable developmental technique.

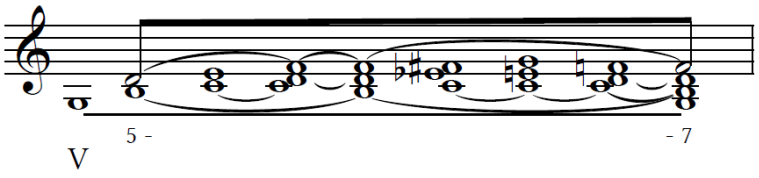
Schenker's third reason for preferring the tonal system stems from the possibility of including modality within the scope of tonality. He attributes many deviations from normative tonal patterns to artistic license, and points out that composers have included modal elements within their compositions, showing the modal system to be unnecessary as a separate system. His observations about modality and tonality being integrated have value in the current context because of the relationship between tonality and non-tonal techniques in Holst's and Vaughan Williams's music, but his claim that modality can be subsumed into tonality ignores much of the music

that has tonal references but is primarily modal. It also presupposes that tonal progressions and directionality would still need to be present. One might, in fact, posit that tonality can be subsumed into a larger context of centric diatonicism in which modality simply forms a separate category.

In spite of his opinions to the contrary, elements of Schenker's theories established the foundation for extensions to other repertories. One aspect of his theory especially pertinent to modal music involves his ideas on mixture as found in *Free Composition* (Schenker [1935] 1979). According to Schenker, mode mixture may appear in the middleground of tonal pieces, and although he addresses it in a separate section, we can also include the Phrygian $\flat\hat{2}$ in the same category. As mentioned in II.4.2, borrowing occurs frequently in modal music, and although they may appear at any level, the background level of a piece will probably consist of pitches belonging to the most prominent, or stable mode. Modal music also involves more possibilities for borrowing because of the number of possible modal inflections. The tonic and dominant are not likely to be inflected, but $\hat{2}$, $\hat{3}$, $\hat{4}$, $\hat{6}$, and $\hat{7}$ may all be inflected, depending on the mode and what the composer decides to do with the harmony in a given piece.

In another section of *Free Composition*, Schenker addresses the possibility that $\hat{4}$ might be supported by a V^7 chord, which forms an exception to his rule that only triads can prolong and support structural pitches. In order to justify the possibility, he derives the seventh through contrapuntal means and then attributes its use as a consonance to a "transformation" whereby it becomes a consonant member of the harmony (Schenker [1935] 1979, 61–64). In one example, Schenker includes a graphical segment from the

dominant prolongation of Bach's Prelude in C major (from *The Well-Tempered Clavier*, book 1), shown here as example III.1. In the example, Schenker has shown the seventh of the dominant chord being prolonged, but one of the most interesting features of the example appears is the third and seventh verticalities, where the composer used a tonic chord in prolonging the dominant harmony. Normally, one would consider the tonic to be structurally superior to the dominant, but contextual factors– including the repetition and arpeggiation of the dominant chord, and the inversion of the tonic– overruled the norm in favor of the continuous prolongation of the dominant. Considering Holst's and Vaughan Williams's frequent use of sevenths and other non-triadic harmonies, this example demonstrates the possibility that a relatively dissonant chord can be prolonged by relatively consonant harmonies, if the context makes the prolongation sufficiently clear.



Example III.1. Schenker, *Free Composition* ([1935] 1979), figure 65-5, analysis of Bach Prelude in C major from *The Well-Tempered Clavier*, book I, mm. 24–35.

Building on the same principle (and in fact referring to the same graphical example), Morgan's 1976 article describes a number of situations in tonal music where a dissonance gets prolonged. He cites an analysis of Stravinsky that Schenker used as a negative example, and points out that Schenker inadvertently established grounds for

graphical analysis of more dissonant music. He then proceeds to describe examples that involve the prolongation of unstable chords, such as major-minor sevenths (V^7), diminished and augmented triads, and the whole-tone set. Because he focuses his essay on tonal exceptions, some might understandably find his analyses controversial, but his point that some passages– including some formally substantial sections– may prolong a dissonance remains valid. As I mentioned, one can also find dissonant prolongations in the music of Holst and Vaughan Williams. However, in both the tonal examples described by Morgan and the music of Holst and Vaughan Williams, these passages most often get subsumed into the prolongation of a sonority with more stability at a higher level of structure.

While Morgan's dissonant prolongations generally form a part of a single tonality, Harald Krebs published two articles (1981 and 1985) dealing with pieces that structurally define more that one tonal area. Schenker had identified pieces that begin in the dominant key and progressed to the tonic, a concept he referred to as an "auxilliary cadence." In Schenker's conception, any secondary keys would be subsumed into the tonic key at deeper structural levels (Schenker [1935] 1979, 88–89). In his 1981 article, however, Krebs describes pieces by Schubert, Schumann, and Chopin, where the composers used two different keys with equal structural weight, making monotonal interpretation unlikely if not impossible. Krebs (1985) goes further by describing three different types of non-monotonal background structures: those with two complete structures, those with an incomplete structure followed by a complete structure, and those with overlapping structures. One could see each type of tonal dualism as a directional motion at the background level rather than the prolongation of a single

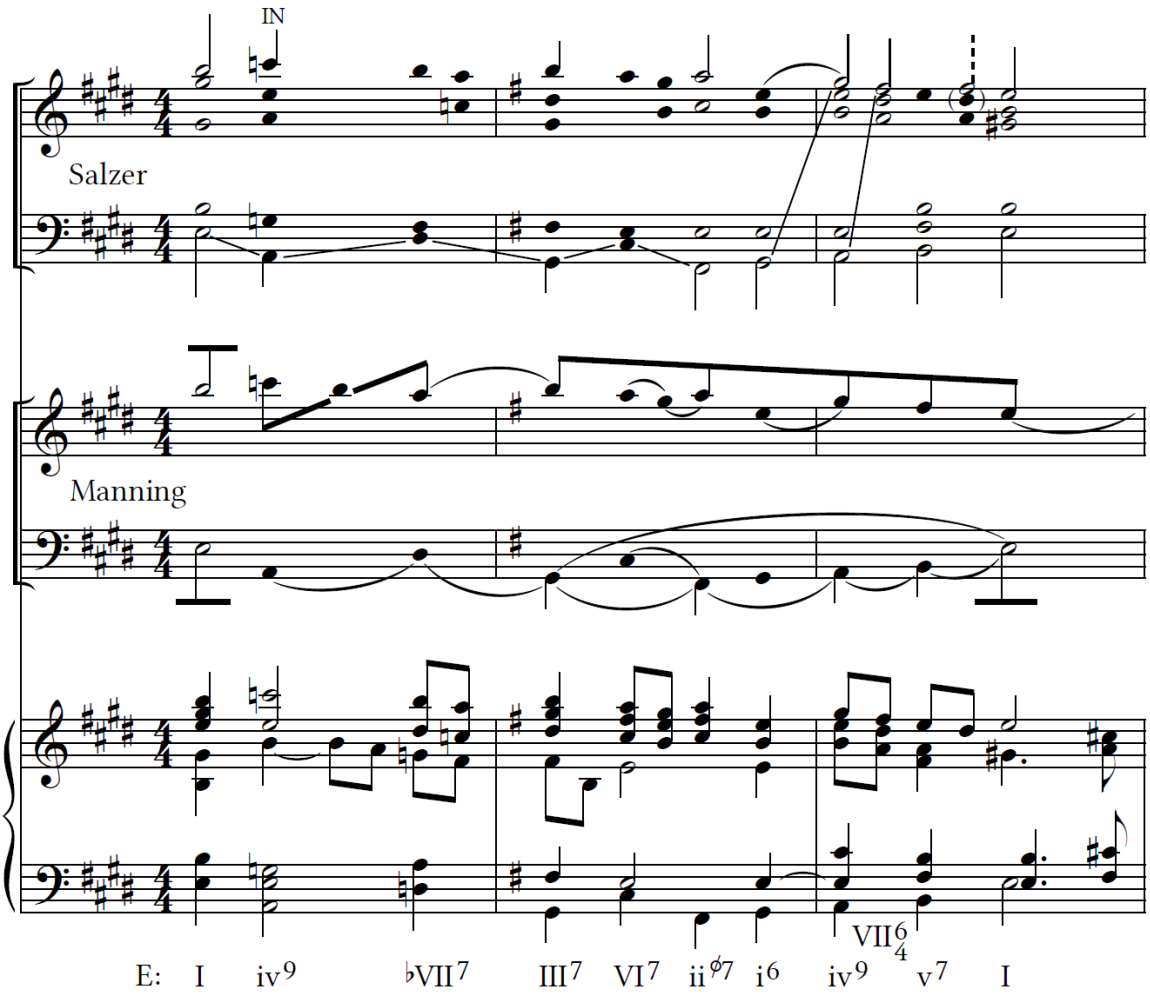
entity as Schenker would have. Although Holst and Vaughan Williams frequently used structures that prolong a single modality, some works move from one modal area to another in a directional manner similar to the structures Krebs found. Sometimes one modal area can be seen as subordinate to another, but often the two areas operate independently and therefore present a true background directional motion rather than a single background prolongation.

III.1.2. Post-tonal Prolongation

One of the first and most significant studies to extend Schenker's analytical system to twentieth-century music was Felix Salzer's book, *Structural Hearing* (1962). Written as a pedagogical approach to hearing and understanding music according to Schenkerian structures, Salzer intentionally expands the applicable literature to both pre-tonal and post-tonal repertoires. The post-tonal examples mostly come from centric pieces, some of which conform to traditional Schenkerian structures while others deviate significantly. Salzer observes that in post-tonal music, the tonal polarity between consonance and dissonance gets replaced by a continuum of more- and less-dissonant sonorities. Like Morgan, Salzer also comments on the possibility of prolonging dissonances, and because he extends his repertoire to the early twentieth century, he includes prolongations of a wider variety of dissonances, including polychords (1962, 192–4).[16] He also indicates that where harmonic implications do not inherently define structure, counterpoint plays a stronger role. One can thus determine stability through counterpoint (horizontal), harmony (vertical), or both.

16. Salzer's work in this area actually precedes Morgan.

Salzer includes one analytical graph of an excerpt from Vaughan Williams's fifth symphony, which he uses as an example of how a descending-fifth chord progression prolongs a basic contrapuntal motion (1962, I:166, II:123). In Manning's discussion of the possibility of applying Schenkerian analysis to Vaughan Williams's music, he criticizes some aspects of how Salzer graphed the excerpt, and offers his own interpretation. Example III.2 shows both graphs above the score (the score is based on Manning's transcription). Although visual aspects of their graphical techniques differ considerably,



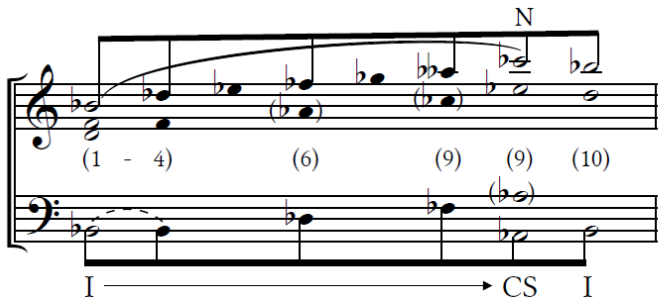
Example III.2. Vaughan Williams, Symphony 5, Mvt. 1, mm. 6.3–6.5, with graphs by Salzer (1962, II:123) and Manning (2003, II:3).

the two analysts interpret the upper line in essentially the same way (through his use of the unfolding, Manning does give slightly more emphasis to the A at the end of the first measure of the example). The biggest difference between their interpretations has to do with the harmony and bass line. Manning aligns his bass with the structural notes in the soprano, ignoring the linear patterns evident in the descending-fifths progression and the following ascent to $\hat{5}$. Salzer focuses his analysis on the linear aspect of the bass, which shows a descent-ascent pattern that prepares the dominant. Although the correspondence between upper and lower parts in Manning's graph shows their relationship better, Salzer's bass line seems to reflect the underlying structure more clearly.

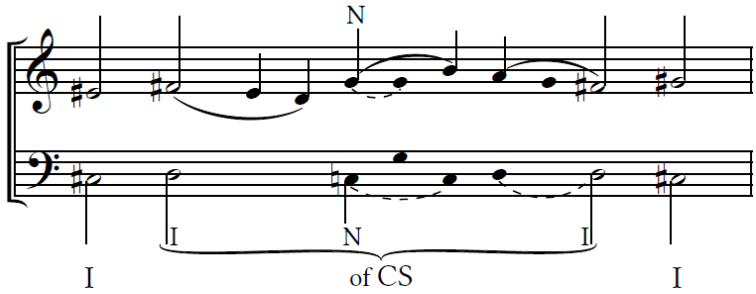
As one can see comparing example III.2 with some of the examples included in chapter II, Salzer's graphs of post-tonal music tend to contain clear prolongations, and he makes valid comments about the examples, but they seem to be specially chosen for their clarity in demonstrating his ideas of structure, whether or not they represent an accurate cross-section of the repertoire. Salzer offers no consistent formula for the analysis of passages with less clear prolongations, nor does he offer a concise theory or method for analyzing any particular style. Both of these are issues that I will address for the music of Holst and Vaughan Williams.

Perhaps necessarily, Salzer also tends to exhibit some flexibility with the kinds of formations he considers valid for background structures. I have included three middleground graphs showing Salzer's less-conventional structures in example III.3. Example III.3.a contains a minor-third interval progression in both voices. The top voice progresses one step farther than the bottom voice, leading to a neighbor above the

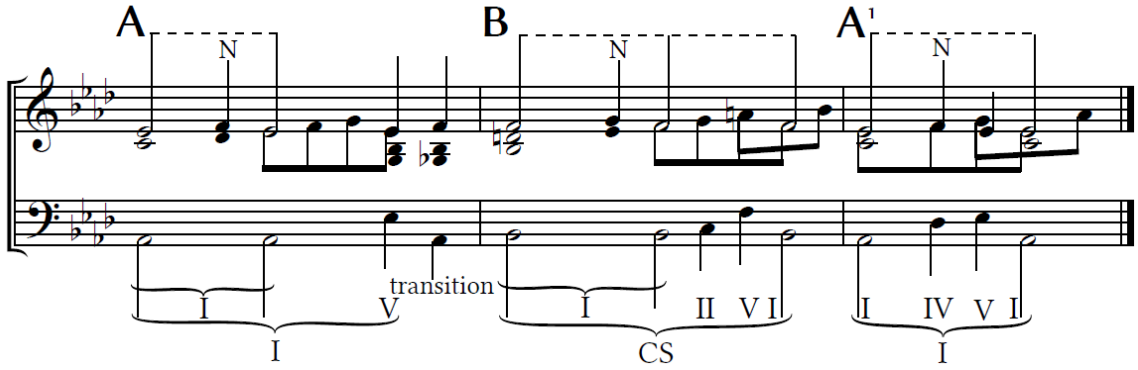
a. Hindemith, Piano Sonata No. 3



b. Bartok, String Quartet No. 5



c. Debussy, "Bruyères" (*Préludes*, book II)



Example III.3. Salzer, *Structural Hearing* (1962), examples X-d (II:7), 452-c (II:212), 478-c (II:254).

tonic while the bottom voice stops at the step below the tonic. The background thus involves outer voice neighbors in contrary motion. A neighboring figure also forms the background of the bass in example III.3.b, but in this case, the upper voice rises stepwise

from $\hat{3}$ to $\hat{5}$. The Debussy graph in example III.3.c has upper neighbors in both voices. It would seem from these and other examples that Salzer accepts any background structure that follows some logical interval pattern. Some of these backgrounds may be unnecessary, or at least conjectural, however. In Debussy's "Bruyères," for example, one could use the tonic pitch from an inner voice to complete a conventional 3-line, which would correspond with the tonal harmonic progression indicated by Salzer in his graph.

Building on Salzer's work, a number of other theorists have also looked for ways of extending Schenker's ideas and methods to twentieth-century music. Joel Lester developed a method of determining prolongation in atonal music in his dissertation from 1970. His proposed analytical method involves determining a closed set of embellishment types based on those in tonal music. By limiting embellishment definitions and establishing strictures to make sure they are consistent– and symmetrical where possible– the analyst can map pitch successions in an atonal piece onto the embellishment types, and thereby determine which pitches are structural and which are embellishing. Lester's definitions may help in the analysis of Holst and Vaughan Williams because their music often includes embellishing tones that were uncommon in tonal music, such as symmetrical divisions of stable intervals (Lester's "division tone" either belongs to the extant harmony or divides an interval symmetrically).

In two articles on post-tonal prolongation, James Baker proposes another method for determining prolongation in post-tonal music. In the first article (Baker 1983), he proposes that the analyst begin by looking for tonal references and idioms as much as possible, and then determine from the context of the piece what kinds of

entities and processes the composer uses to establish hierarchy and prolongation.[17] Baker uses Scriabin's *Enigme* (Op. 52, No. 2) as an analytical example, incorporating both tonal structure and pitch-class set analysis. Baker's second article (1990) continues to advocate for prolongational graphing of atonal music, and proposes a hypothetical graph for the first of Schoenberg's *Six Little Piano Pieces* (Op. 19, No. 1). For this analysis, Baker incorporated some of Schoenberg's own comments about the structure, but still followed tonal outlines for the background. Baker's analytical technique tends to focus on octave equivalence, voice exchange, and pitch-class motives, and his graphs tend to emphasize voice leading over harmony or interval patterning. Although it may be questionable to use tonal structures as a point of reference in analyzing atonal music, the music of Holst and Vaughan Williams does use tonal idioms and therefore could be analyzed that way.

When investigating the possibility of prolongation in post-tonal music, some scholars question its existence in certain types of music. Joseph Straus brought up the question in his 1987 article on post-tonal prolongation, and described what he considers to be four necessary conditions for prolongation to occur. For condition 1, a piece must exhibit a distinction between consonance and dissonance. Condition 2 requires a hierarchy among consonant harmonies, such as that of tonal scale-degree triads. Condition 3 requires consistent relationships between embellishing tones and structural tones, such as those Lester (1970) described for Schoenberg's music. Finally, condition 4 requires a means of differentiating between horizontal and vertical structures

17. An article by Schulenberg (1985–1986) emphasizes the point that characteristics within the music will help define the way it should be analyzed. He observes that pre-tonal music is coherent, but does not exhibit the same hierarchies as tonal music. He looks at the music of Ligeti, Carter, and Stravinsky, and points out that prolongation is more likely to occur in their music than in pre-tonal music because they use hierarchies that are more like those of tonal music. Modal music would thus exhibit prolongation, but the analytical system would need to be adjusted appropriately.

("harmony and voice-leading"). For the last condition, harmonies in tonal music generally consist of pitches that are not adjacent in the collection, whereas in post-tonal music they may include adjacent pitches. Where adjacent pitches could form part of the harmony, one would need other criteria to determine which pitches are stable, or "harmonic" and which are not.

Modal music fulfills all four conditions because of its similarity to tonal music, but requires some clarification for conditions 2 and 4. As I described in II.4.2, the hierarchy among triads in modal music may be redefined in each piece, depending on which triads the composer uses most frequently, at cadences, or at formal structural points in the piece. In general, however, modal hierarchy still begins with the tonic triad, and follows with one or two other triads that serve as primary tonic supports. With regards to condition 4, modal music's use of diatonic triads fulfills the condition, but where the composers used stacked tertian and quartal or secundal chords, we need other criteria to determine priority among chord members. I will discuss these criteria further in III.3.2 on establishing harmonic stability.

According to Straus, much post-tonal music does not fit these conditions, and therefore he advocates for analysis based on "association" rather than "prolongation." One determines association in post-tonal music through similarity or prominence of register, timbre, metrical placement, dynamic, articulation, or motivic membership, without creating any prolongational relationships between the non-associated pitches and the associated ones. In this way, long-range processes similar to those shown in tonal Schenkerian analysis can be shown for music that does not exhibit the same kinds of hierarchies.

Straus seems to polarize tonal and post-tonal musical styles too easily in this article, overlooking much early twentieth-century music that is not tonal but still fulfills his conditions. Studying the music between those two poles would make it easier to arrive at a more theoretically sound approach to the analysis of either extreme. My research on the music of Holst and Vaughan Williams helps bridge the stylistic gap between tonal music and the post-tonal music that Straus focuses on.

Steve Larson wrote a response to Straus's article in 1997, and although Larson focuses on tonal music, he significantly redefines certain aspects of Schenkerian theory – based on music cognition– in a way that has important implications for post-tonal analysis. One of the salient points he makes is that context defines stability just as much as any *a priori* concept of consonance or dissonance. Citing Schenker's Bach graph shown in example III.1, Larson observes that even though tonic triads appear in the midst of the progression, the inversion of the tonic chord and the context of having the dominant prolonged around it makes the tonic less stable. Thus, the way we perceive consonance may differ from the physical manifestation of consonance as seen in the overtone series.

Larson also criticizes Straus's first two conditions, pointing out that the consonance-dissonance condition does not hold consistently in tonal music, and therefore cannot be used as a condition of prolongation. He observes that the second condition (scale-degree condition) does not always agree with the first condition because they are based on different types of hierarchies. Rather than trying to stipulate conditions for prolongation to occur, Larson describes prolongation as an aspect of music cognition that is prior to, not dependent on, the conditions set forth by Straus.

A second article by Larson (1997–8) introduces a theory of melodic motion in tonal music based on a set of metaphorical forces: "gravity," the tendency of pitches to descend; "magnetism," the tendency of unstable pitches to resolve to the closest stable pitch; and "inertia," the tendency of pitches to continue moving in the same direction they began. He then greatly expands the theory in a recently published book, *Musical Forces: Motion, Metaphor, and Meaning in Music* (Larson 2012), in which he provides much more thorough premises for the theory and redefines the forces in terms of melodic and rhythmic manifestations of each. He uses these forces to describe melodic pitch patterns in tonal music, based on having stable starting and ending points (often tonic triad pitches), where the motions between the stable points generally follow the forces, and motions that deviate generally have some expressive significance. Even though Larson only applies his forces in tonal music, we can apply the same principles in modal music by making a few adjustments to the pitch patterns based on the interval structure of each mode. This provides us with a means for determining melodic stability and directionality, as I will discuss in III.3.3.[18]

Occasionally in Holst's and Vaughan Williams's music, passages may appear where the centricity becomes lost or unclear. For these passages, it helps to look at ideas from those writers who explicitly address determining structure in atonal music. Two articles by Fred Lerdahl contribute to this part of the study. Lerdahl 1989 proposes a set of "salience conditions" for determining structural pitches where other factors do

18. Lerdahl 1997 responds to Larson 1997 and describes ways in which psychoacoustics determine pitch hierarchies. He describes how Larson's forces correlate with his own research, but makes the claim that Larson's gravitational force could be dispensed with because most contrapuntal dissonances tend to resolve down. Lerdahl's point that the reason for the validity of Larson's gravitational force may be based on counterpoint does not render it useless, however. Gravity, in fact, may be one of the forces most closely grounded in physical phenomena, since reducing the amount of energy in a vibrating object will tend to lower the speed as well as the intensity of the vibration, thus lowering both volume and pitch.

not. These include the placement of attack, volume, timbral and registral prominence, density, duration, motivic importance, and proximity to a large boundary. To be consistent with tonal Schenkerian analysis, these criteria would be insufficient by themselves because they are all forms of contextual emphasis that appear in tonal music but are subordinate to and supporting of the tonal systemic hierarchies. Where other factors are insufficient, however, salience criteria can help establish a hierarchy of relative stability.

Lerdahl 1999 actually addresses the relationship between tonal stability and salience criteria, but puts it in terms of an opposition, where salience becomes a stronger factor when stability is weakened. His definition of stability seems to necessitate a relationship with traditional tonality, whereas I use the term stability to refer to pitches in any pitch-space (tonal, modal, or even fully chromatic) that are perceived as a point of arrival, repose, or anchoring, resulting in their belonging to a higher level of structure.

Lerdahl 1999 also describes four principles from psychoacoustics that apply in determining hierarchies. Psychoacoustic "streaming" refers to the listener's ability to separate incoming auditory signals into multiple simultaneous lines, and helps in differentiating the horizontal and vertical dimensions in a piece of music. The principle of "Anchoring" means that listeners tend to anchor dissonant pitches on subsequent consonant pitches, establishing a relationship between the prolonged pitch and the embellishing pitch. According to the third concept, "virtual pitch," when listeners hear a combination of simultaneous pitches, they tend to perceive them as overtones of a virtual "root," which means that when a pitch verticality corresponds more closely to an

overtone series formation, listeners are more likely to perceive it as stable. When the pitches do not correspond to such a formation, multiple root possibilities can be perceived, and listeners perceive it as less stable. The "critical band" principle in psychoacoustics refers to the interval threshold where listeners begin to perceive "roughness," or perceptual dissonance. Although the band widens slightly at lower pitch levels, in most registers listeners perceive roughness between pitches with intervals smaller than a minor third. Thus, listeners are more likely to perceive smaller intervals as dissonant and larger intervals as consonant. These psychoacoustic principles thus provide means for determining stability in a context where the hierarchy may otherwise be obscured.

Edward Pearsall also published an article in 1991, in which he evaluates methods for determining consonance and stability in atonal music. He describes limitations and benefits of using repeated chord structures and voice-leading patterns in determining structure, pointing out that often, voice-leading principles do not apply in atonal music because the composers did not follow consistent voice-leading practices. However, in some pieces, voice leading can help one understand structure. Pearsall demonstrates this with an analysis of Webern's Bagatelle, Op. 9, No. 2, in which he interprets the background structure as a large-scale voice exchange. In my analyses of Holst's and Vaughan Williams's music, the background would rarely depend on a single voice leading principle, but occasions may arise where a tonic or stable pitch element may be difficult to find, and a voice-leading process ties the passage into the large structure in some way.

In the final article specifically on atonal music that I will discuss, Jack Boss (1994) closely examines Schoenberg's writings that refer to embellishment and structural hierarchy. Boss organizes previous writers' approaches into three strategies for determining structure in atonal music: using contextual criteria, limiting structure types, and limiting ornament types, subsequently defining each for the music of Schoenberg. Boss's contextual strategy involves criteria like Lerdahl's salience conditions, and he limits structure types to those defined specifically by each piece, often related to symmetrical patterns or motives. Lester (1970) provides the limitations on ornament types, although Boss adds "motivic replication" to the list because of the importance of motivic relationships in Schoenberg's music. Boss also points out that for Schoenberg's music, the structures normally do not go back as far as in tonal music, but only reduce to the level of an unornamented motive (which contributes to the developmental process and coherence in a piece of music).

Boss's emphasis on motives may play a small role in Holst's and Vaughan Williams's music, but as I pointed out in II.2.5, motivic process does not seem to carry the same significance in their music as it does for certain other composers. I will thus use motivic relationships in this context only to aid in consistent treatment of similar material and to a limited degree in ascertaining local hierarchies.

Olli Väisälä assembled his dissertation (2004) from articles that he had written previously on prolongation in early post-tonal music, Väisälä 2002 being one of the most pertinent and exhaustive of them. The dissertation provides a thorough study on post-tonal prolongation based on using the overtone series and principles of psychoacoustics (some of the same principles as in Lerdahl 1999) to establish hierarchies for each piece.

Väisälä applies his system in analyses of music by Scriabin, Berg, Debussy, Webern, and Schoenberg.

Psychoacoustic virtual pitch provides the basis for using the overtone as a central consonance in all of the pieces studied. Väisälä defines certain intervals as "root supports," meaning that when present they contribute to the perception of a given pitch as the root of the harmony. Perfect octaves, unisons, and fifths constitute the strongest root supports, while Väisälä also includes major thirds, minor sevenths, and major seconds as weaker root supports (2004, 210).[19] He observes that post-tonal music often uses weaker root supports, but includes more of them (2004, 74).

Spacial and registral placement also affect perception of dissonance and consonance in Väisälä's theory. In general, listeners are more likely to perceive harmonic constructions that more closely match the overtone series as stable harmonies. Because he also incorporates the psychoacoustic "critical band" principle, Väisälä maintains that listeners perceive harmonies with at least three semitones between adjacent chord members as consonant and therefore more stable. From these principles, Väisälä establishes a "referential harmony" for each piece that he analyzes, which constitutes the basic consonance for that particular piece (2004, 89–92).

Väisälä also addresses Straus's four conditions in order to reinforce the validity of his approach to prolongational analysis in post-tonal music. He uses the overtone series-based principles as a basis for establishing consonance and dissonance in all of the styles of music that he analyzes, including the atonal pieces. The hierarchy among harmonies stipulated by Straus's second condition also gets reestablished for each piece

19. Although they depend on slightly different derivations, Väisälä's root supports and Hindemith's consonant intervals and interval roots bear remarkable similarity (see Hindemith 1942, 81).

based on how the composer treats the referential harmony (through transposition or other transformations). For the third condition, since Väisälä has an established system for determining consonance, embellishment types can remain essentially the same as in tonal music. In order to differentiate harmonic intervals from melodic intervals according to the requirements of Straus's fourth condition, Väisälä uses psychoacoustic streaming to establish a "proximity principle of voice leading," which stipulates that intervals of a minor third or larger constitute harmonic intervals, and those of a major or minor second constitute melodic intervals.[20]

Even with the possibility of fulfilling the four conditions, Väisälä examines the interrelationships between the conditions and condenses them into two "basic requirements" for prolongation: what he calls a "consistent system of harmonic stability," and a "consistent system of melodic relationships" (2004, 60–62). If one has a means of establishing a preference for one harmony over another as being more stable, then one has sufficient information to develop a hierarchy for an entire piece. In tonal music, the scale degree relationships and the preference for the triad as a consonance establish the harmonic hierarchy. Melodic relationships help determine horizontal stability by differentiating between stable and unstable melodic pitches. In tonal music, one determines melodic relationships according to whether or not the harmony includes those pitches and what relationship those pitches have to members of the harmony.

The way Väisälä established his method and theory enables a consistency with tonal Schenkerian analysis that other scholars have had difficulty achieving. Many

20. The voice leading principle Väisälä uses here corresponds very closely with Larson's concept of "traces," in which he points out that a pitch will leave a trace in a listener's mind until a note a (diatonic) step away displaces that trace. Thus, for Larson, intervals a minor third or larger constitute harmonic intervals because they do not displace the trace of the previous pitch, and both pitches can be heard as a simultaneity even when they are not sounded at the same time (Larson 1997, 104–106).

scholars would disagree with his choice of using the overtone series as a basis for determining consonance and stability in atonal music because the music deliberately works against the idea of having a differentiation between consonance and dissonance. However, in the music of Holst and Vaughan Williams, triads and overtone-like harmonies do often form the basic consonances, making Väisälä's method valid for helping establish the context for harmonic stability. Väisälä's approach to melodic stability can also help in that regard, especially where steps may form part of the harmony and thus make it more difficult to determine melodic stability using strictly traditional methods. His method therefore provides important groundwork for establishing a system of prolongational analysis in modal music.

In a recent article, David Forrest (2010) points out the focus many scholars have put on non-triadic post-tonal music and how little attention has been given triadic post-tonal music. By analyzing a selection of triadic choral pieces by Britten, Forrest's article relates very closely to my study of the music of Holst and Vaughan Williams. After reviewing some of the research done on post-tonal prolongation analysis, Forrest points out the possibility of using interval cycles as a prolongational device in Britten's music without including them as vertical consonances. For the pieces he studies, interval cycles appear on the surface of the music as well as in the background structures, so one can see that they form a significant part of Britten's structural designs for those pieces even though he uses triads as his primary harmonic structure. In certain passages, Holst and Vaughan Williams also use cyclical interval patterns, though they usually appear only in relatively brief transitional passages (like the central part of *Lord, Thou hast been our refuge*, shown in example II.9 on p. 43). Like Britten, Holst and Vaughan

Williams only use these patterns as prolongational connectives and not as harmonic devices.

III.1.3. Schenkerian Analysis in Other Related Repertories

I have already mentioned David Manning's dissertation (2003) in chapter II and with regards to his and Salzer's analyses in example III.2. Manning extensively examined the possibility of analyzing Vaughan Williams's music using Schenkerian analysis, but never addressed the analytical method systematically. As far as I have been able to ascertain, no scholars have yet extended Schenkerian analysis to Holst's music. Because scholars have rarely applied Schenkerian analysis to Holst's or Vaughan Williams's music, I have included a few publications here that address applying the method to closely related styles: the music of Debussy, and pre-tonal modality.

In two different articles, Matthew Brown examines features of Debussy's music that are brought out through Schenkerian analyses. In the first (1993), Brown analyzes *Prélude à "L'Après-midi d'un faune"* and shows ways in which Debussy follows tonal patterns at the middleground and background even though the surface of the piece contains many non-tonal characteristics. Brown's graphs of the piece tend to focus on tonal elements and tonal progressions, giving little attention to many of the chromatic and non-tonal elements. In the second article (2004–5), Brown describes a piece's Schenkerian background structure as a compositional prototype. In order to demonstrate Debussy's use of the background as a prototype, Brown looks at the compositional manuscripts of *L'isle joyeuse*, comparing the piece's genesis and modifications to the finished structure, which shows that Debussy may have been

aware of following a prototype when he wrote the piece. Like Debussy, Holst and Vaughan Williams incorporate a number of tonal elements in their music, which forms a significant part of what my analyses will show in their music. Prototypes also feature in their works, and I will discuss how to discern and follow formal prototypes and other recognizable patterns in section III.3.4.

David Pomeroy's dissertation (2000) undertakes a thorough examination of many of Debussy's compositional practices as evident in his orchestral repertoire.[21] Like Brown, Pomeroy uses traditional Schenkerian analysis as much as possible and observes that the method works best when one knows which aspects of the piece are tonal and which are not. Pomeroy also observes that even when foreground harmonic progression seems suspended, tonal directionality may continue at a deeper structural level. This feature seems to correspond with Macan's idea of formal blocks in that the surface of the music may be harmonically static, but in the larger formal process, surface harmonic stasis functions as part of background harmonic motion.

In a second article (2004), Pomeroy looks at tonic relationships in pieces from Debussy's *Images for Orchestra* that end in a different tonal area than they begin. He uses two of the categories established by Krebs to describe the processes in Debussy's music: "Directional tonality," where one tonal area leads to the second and becomes part of the second area's structure; and "tonal pairing," where the two tonal areas have equal importance at the background level. The *Images* primarily use directional motion, and motion can be seen across all three movements. Pomeroy also adds the possibility of "directional modality," where one mode moves to another without a change in tonic.

21. To support his study of the orchestral repertoire, Pomeroy also analyzes a number of Debussy's piano pieces.

From a prolongational standpoint, this may result in a change of inflection in the primary line, but the tonic goal remains the same.

Although other scholars– including Salzer– have used Schenker's methods with early modal music, few directly address the methodology, which is the primary interest here, so I have only included two early music studies in this review. Looking at background organization in Renaissance music, David Stern (1981) focuses on the use of fifth-relationships to ascertain more clearly how that aspect of tonal music developed historically. He finds that modal music from both the fifteenth and sixteenth centuries frequently features background structures with relations in fifths, but those relationships may include I-V (directional structure), I-IV-I, and V-I in addition to the expected I-V-I. This correlates with Holst's and Vaughan Williams's use of chords other than V in a structural function, and so that feature of their modality may show sixteenth-century influence, in addition to their use of imitative textures and diatonic modes.

Another study involving Schenkerian analysis of earlier music comes from a book Lori Burns adapted from her dissertation on the modal *cantus firmi* that Bach used in his chorales (Burns 1995). In it, she looks at *Ursatz* possibilities in each mode, as well as special-case embellishing tones. Most of these modal embellishments consist of neighboring tones with different interval widths, such as the whole-step $\hat{1}$-$\hat{7}$-$\hat{1}$ in all but the Ionian and Lydian modes. As part of that discussion, she describes what she refers to as a Dorian upper neighbor: $\hat{5}$-$\hat{7}$-$\hat{5}$. Because the *cantus firmi* have tonal harmonic settings, and come from German sources, these analyses have only limited connection to Holst's and Vaughan Williams's music. However, most of the neighboring

relationships she describes in each mode do appear frequently, so they will need to be addressed appropriately in the analyses.

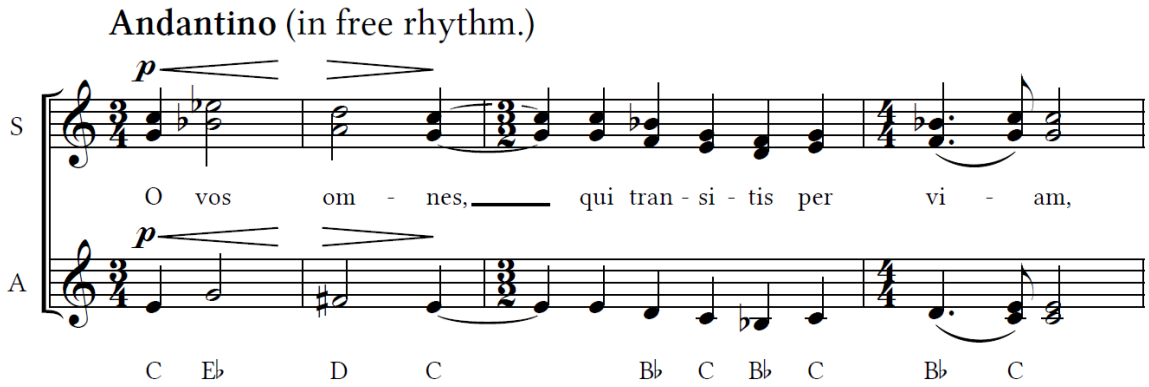
The tonal deviations discussed by Schenker and other authors that I began this study with provided ways in which we can expand on the analytical system from tonal music to include many of the exceptions that we see in Holst's and Vaughan Williams's music. Similarly, the authors who addressed post-tonal and pre-tonal prolongation provided a variety of strategies for dealing with techniques used in the twentieth century that also appear in Holst's and Vaughan Williams's works. In establishing a methodology for the analysis of their choral music, I will build on many of the methodological principles these authors have established, but adapt them based on the compositional techniques studied in chapter II.

III.2. Some Terminology

Many of the authors discussed in this review define certain key terms differently, and so I will address some of them here in order to make clear how I will use them with reference to the music of Holst and Vaughan Williams. I already discussed terms specific to the style in chapter II (II.4.1), so here I will only include terms pertinent to the methodology.

The dialog between Straus and Larson points out that they have significantly different ideas about what "prolongation" means or entails, especially with regards to post-tonal music. For my purposes, "prolongation" will refer to when one entity in a piece of music can be retained in aural memory (whether conscious or unconscious) as a stable or important aspect of the music while other musical events temporarily displace

it.[22] By this definition, as a piece progresses from element X to Y and back to X, element Y may prolong X, whether or not it has any direct, systemic relationship to it. The presence of movement from one element to another automatically creates a relationship between them as a consequence of their proximity. The beginning of Vaughan Williams's *O vos omnes* (example III.4), for example, contains frequent returns to a C-major triad, with other triads in between that are related only by the parallel motion governing the voice relationships. Because of the repetitions, a listener can easily retain the C-major triad in aural memory as a significant, stable element, while the other triads embellish it. Thus, according to the current definition, the E♭, D, and B♭ triads serve to "prolong" C-major even though they contain pitches that do not have any direct relationship to the tonic triad.



Example III.4. Vaughan Williams, *O vos omnes*, mm. 1–4.

22. This definition may in fact be close to how Schenker might have viewed the concept of prolongation. Concerning the dissonant passing tone, for example, he wrote "The meaning of the passing dissonance consists solely in its function of forming a melodic bridge from one consonance to the next" and that "it is as though there were nothing but a vacuum separating the dissonant passing note and the sustained note of the *cantus firmus*" (Schenker [1926] 1996, 9).

In discussing prolongation, I often refer to the prolonged element as being more "stable" than elements around it. This means that one can perceive it as a point of repose or arrival without a tendency to resolve or move. Stability is not a binary characteristic, but rather operates on a continuum: an element that is stable at one level of the music may be less stable at another level. The process of analyzing prolongation in a piece of music requires establishing a hierarchy of stability for that piece, where the final tonic is likely to be the most stable element and surface-level chromatic inflections the least stable. Stability depends on a number of factors, such as consonance, temporal positioning, and repetition, and will need to be defined separately for vertical and horizontal dimensions. Much of what I do in this chapter, therefore, will involve explaining how the analyst determines stability in different contexts.

I will refer to the overall shape and construction of a piece of music as its "structure." This may include formal design, background voice leading, or melodic shape, and in fact all of these factors contribute to the structure of the piece because of how they interact. Most often, however, I will use the word "structure" to refer specifically to the Schenkerian voice-leading and prolongational processes that govern a given work. One may observe that I use terms such as "middleground," "foreground" and "background" somewhat flexibly. Generally, I use the term "foreground" to refer either to the actual surface of the music, or to a graph that includes all, or nearly all, of the outer voice pitches (and sometimes inner voice pitches, where such are applicable to the structure). "Middleground" may refer to any level that does not include all of the foreground pitches, but has not yet been reduced to the fundamental structure. "Background" will refer specifically to the deepest structure of the piece, consisting of

the fundamental upper-voice motion and the corresponding bass progression (roughly equivalent to Schenker's *Ursatz*, *Urlinie*, and *Bassbrechung*, respectively), whether or not the structure follows Schenkerian norms.

Macan (1991 and 1993) wrote extensively on the issue of harmonically "goal-oriented" and "static" formal blocks, but sometimes other dimensions of the music may also feature contrast between mobility and stasis. For my purposes, "goal" will refer to a stable element, such as a pitch or chord, towards which other pitches or chords tend to move. "Goal-oriented" or "directed" motions, then, refer to pitches, chords, or passages that move toward a goal. By contrast, "static" refers to the prolongation of a single element without the tendency to move toward a particular goal. As with stability and instability, a section may be static at one level and part of a goal-oriented motion at another.

III.3. The Analytical Methodology

In order to ascertain any stylistic relationship with tonal music, an assessment of prolongation and hierarchical structure in centric post-tonal music should be as consistent as possible with tonal Schenkerian analysis. Ideally, one might seek to develop a single system that operates consistently in tonal music, post-tonal centric music, and even atonal music, and Väisälä's and Lerdahl's work takes important steps in that direction with their incorporation of psychoacoustic principles, but the drastic differences between tonal and atonal music in how one defines stability and hierarchy prevent any system from being absolutely consistent (or at least prevents the ability to determine consistency). Nevertheless, because of the features found in Holst's and

Vaughan Williams's music, the method established here will remain as consistent as possible with conventional Schenkerian analysis, while also providing for its extension to centric post-tonality.

We have observed that modulations may involve a change of tonic, pitch collection, or both. In this type of analysis, changes in pitch collection or mode type that keep the same tonic can prolong a single middleground or background element, whereas a change of tonic signals a change in the goal, and therefore plays a more significant role in the middleground and background. Since the tonic acts as the primary goal for a piece (or section), determining the tonic is fundamental to determining the deeper structure.

At the same time, as per Larson's discussion of prolongation (1997, 106–111), the analyst must establish a context with which to determine stable and unstable elements. Different factors may affect stability for the vertical and horizontal dimensions, and as Forrest (2010) notes, sometimes long-range melodic motions may follow patterns that do not appear as vertical constructions. One would therefore need to establish criteria for vertical (harmonic) stability and horizontal (melodic) stability separately for a piece before considering the intersection between the two and how more- and less-stable elements relate to the tonic.

In addition to determining the tonic and establishing criteria for stability, Brown's study of prototypes in Debussy's music shows that the analyst must also be aware of and watch for recognizable patterns wherever possible. Melodic and harmonic motions in centric music will tend to move towards the pitch class center, but

anticipating the means by which the music reaches that goal can clarify the hierarchy among non-tonic elements.

The steps that I will describe for determining prolongational structure in the music of Holst and Vaughan Williams thus consist of determining the tonic, determining harmonic stability, determining melodic stability, and following recognizable patterns where possible. I will undertake descriptions of each step in that order, but in the process of analysis one typically undertakes the various tasks in a more synchronic manner.

III.3.1. Establishing a Tonic or Pitch-Class Center

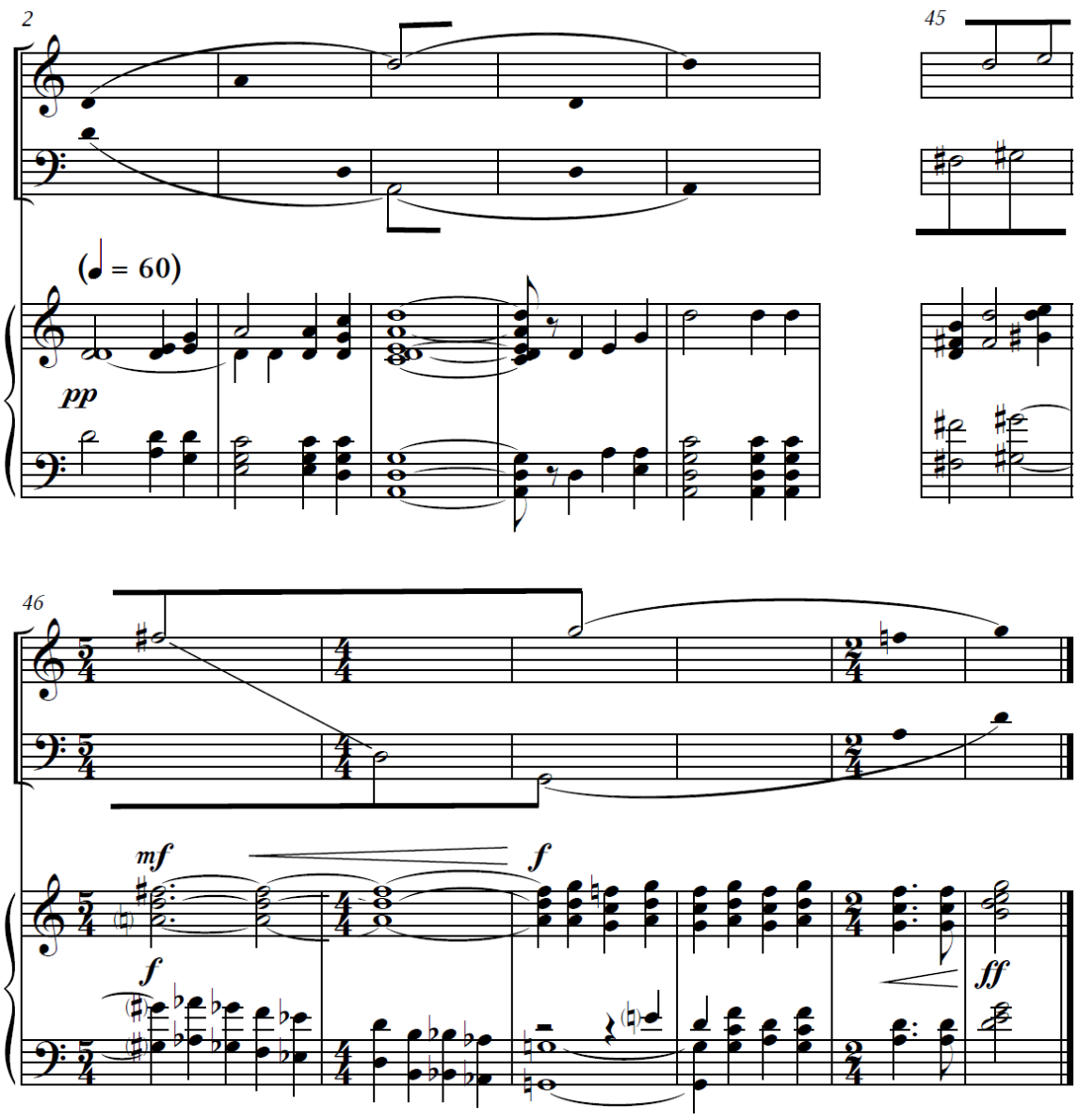
Where tonal music establishes a tonic through systemic cues, centric non-tonal music must do so through other means or through a new system. As Dickinson has observed, a piece typically establishes a tonic through "recurrent accent, vocalizing pattern, and sheer repetition" (1972, 110). Manning also notes that the tonic is stable because it appears frequently and motion moves toward it (2003, 53). Where one can find clear directed motions, the tonic will frequently appear at the beginnings or endings of these. Since the rest of the structure has not been determined, however, only clearly apparent foreground motions could establish a tonic initially. Later in the analysis, one can use middleground and background lines to verify and reinforce the tonic. In Holst's and Vaughan Williams's music, the ends of sections and the end of a piece form significant points of arrival where one may identify the tonic goal for the preceding music. They tended to treat the end of a piece as a significant closure and

except in special circumstances, one will normally find the tonic for the whole piece at its conclusion.

Figure II.3 (p. 58) shows the formal layout for Vaughan Williams's *O, Clap Your Hands*, and I have already described the ambiguity of the opening tonic. The first strongly established tonal area is in A♭, but this eventually transitions through E♭ back to the opening B♭ tonic. From measure 62 onward, B♭ remains a strongly established tonic, and the ending especially reinforces its centricity not only because it ends on a B♭-major chord, but a linear descent in the bass leads to the root of the final chord. The B♭ conclusion reinforces the tonic from the opening, and one can see clearly that the E♭ and A♭ tonal areas embellish the concluding tonic at the background level.

Holst's *The Evening Watch* also has considerable ambiguity about the tonic at the beginning which later gets remedied through a conclusive ending. Example III.5 contains 5 measures from the beginning, and the last 7 measures of the piece. The melody in measures 2–6 seems to reinforce D as a tonic, but the function of this pitch remains unclear because of the non-triadic harmony and frequent appearance of A and G. At the end of the piece, a significant arrival on G in measure 48 concludes a descending linear motion in the bass, and the emphasis on G in the soprano during measures 48–51 reinforces G as the tonic pitch. Another significant melodic arrival on G in measure 16 (not shown) also concludes a rising line and can be seen as tonic for that section. We can then see that the piece moves from an ambiguous opening that seems to emphasize D towards G at the end of an interior section and the end of the piece. Looking at the D in the beginning as $\hat{5}$ in a larger G centricity, we can see that it

gets prolonged through much of the piece, ascending to the tonic in measure 16 and at the end as shown in the prolongation graph in example III.5.[23]



Example III.5. Holst, *The Evening Watch*, mm. 2–6, 45–51, with prolongation graph.

23. Some of Holst's and Vaughan Williams pieces exhibit definite ascending lines, but with varying levels of structural weight (the registral peaks on $\hat{7}$ and then $\hat{1}$ in Vaughan Williams's *O, Clap Your Hands*, for example, belong to an inner voice– see example III.10). I will address the issue of ascending versus descending lines in III.3.3 on melodic stability.

In addition to these issues of temporal placement and melodic motion, certain types of harmonic movements can help establish not only a tonic, but the primary mode that supports it. In order to define a mode within a given diatonic collection, certain scale steps must be present which, as Isted and Bates have pointed out, include the two pitches related by a tritone (TT pitches) within the diatonic collection (see Isted 1993, 432–436; Bates 2009, 8–17). When chords containing those TT pitches continually move towards the same chord, it reinforces that chord as the tonic chord for the collection. This is one way composers can establish goal-directed harmonic motions within modal pieces that are not driven by tonal chord relationships.

Five of the diatonic modes– Lydian, Mixolydian, Dorian, Phrygian, and Locrian– all contain at least one TT pitch in the tonic triad. The Locrian mode contains both TT pitches within the tonic chord, which means that the only way to reinforce a Locrian tonic is through contextual emphasis. This fact, and the instability of having a diminished tonic triad, probably contributed to composers' avoidance of the Locrian mode, especially in choral music. For the modes with one TT pitch in the tonic triad, the second TT pitch would need to precede the tonic chord to help define it as the tonic. The non-tonic TT pitch then functions as a "tonicizer" (Bates 2009, 28).

Figure III.1 shows the tonicizer for each of the modes with one TT pitch in the tonic triad, as well as a list of chords containing it that might serve as tonicizing chords in a harmonic progression. A progression that involves any one of the indicated tonicizing chords moving towards the modal tonic triad would strengthen the root of that triad as the tonic.

Mode	Tonicizer	Possible Tonicizing Chords
Lydian	$\hat{4}$	iv°, II, vii, V^7
Mixolydian	$\hat{7}$	VII, v, iii°, I^7
Dorian	$\hat{6}$	vi°, IV, ii, VII^7
Phrygian	$\hat{2}$	II, vii, v°, III^7

Figure III.1. Chart of tonicizers for modes with one TT pitch in the tonic triad.

The possible tonicizing chords have varying degrees of useability, largely because of how the same chords might be used in a tonal context. Diminished chords in general are likely to sound like a tonal vii° chord, so any time they are used, the tonicizer would need to resolve opposite its voice-leading tendency in order to sound different from a secondary leading-tone chord. As observed in section II.4.1, Holst and Vaughan Williams tended to avoid diminished triads, probably because of how they functioned tonally. The observed modal borrowings, such as ♭III in Mixolydian, may serve to present non-tonic TT pitches while avoiding the stigmatized diminished triads. The chord immediately following the altered chord– normally the tonic– would need to correct the inflection of the altered pitch in order to retain the original mode (without a correction of $\hat{6}$, ♭VI in Dorian would change the mode to Aeolian).

In addition to the diminished chords, other chords would require special treatment in order to be used as a tonicizer. In Mixolydian, the use of I^7 would result in the same situation as Lydian: both TT pitches appearing in the tonic chord. Progressions involving I^7 moving to I would be harmonically stagnant and composers would need to rely on other means of reinforcing the tonic. The Dorian mode

frequently features v as a structural dominant, but since it does not contain the necessary TT pitch ($\hat{6}$), one of the other possible tonicizing chords would need to precede or follow v in a progression to the tonic chord.

Holst's "Jesu, Thou the Virgin Born" clearly resides in E-Dorian, which means that one would expect to see $\hat{6}$ as part of a prominent harmony in the piece. The progression shown in example II.7 (p. 39) includes the entire phrase leading up to the final cadence. In measures 15–16, Holst reverses the traditional ordering of v and IV, giving emphasis to $\hat{6}$ as part of the latter harmony, but this occurs early in the progression. The penultimate measure only contains $\hat{6}$ at the last possible moment before arriving on the tonic chord. This shows that the mode can be established without the chord immediately preceding the tonic, as long as the appropriate scale degree and the tonic chord receive sufficient emphasis otherwise.

Vaughan Williams's progression establishing the Phrygian mode in *Lord, Thou hast been our refuge* (see example II.8, p. 40) presents the appropriate scale degree ($\hat{2}$) immediately before the tonic chord by using the vii^7. In doing so, Vaughan Williams only needs the two chords (i and vii) to establish the mode, so he uses them in alternation with a few other chords added as embellishments. The E♭-Phrygian mode in this case gets established through repetition as well as through an appropriate harmonic progression.

In any of these types of progressions, the tonic would also need sufficient contextual emphasis in order to avoid tonal interpretation of the progression. The Mixolydian progression VII-I, for example, could easily be heard as IV-V in the relative major key where there is insufficient emphasis of the Mixolydian tonic.

Since the tonic triads in Ionian and Aeolian do not contain any TT pitches, they require two tonicizers in the harmonic progression in order to define the collection and tonic. In each mode, one of the tonicizers resides a step away from the tonic note, and so preference could be given to having that tonicizer appear second in the progression, but in modal music that may not always be the case, and so figure III.2 shows possible progressions that move in both directions. This means that progressions normally involve three chords, but it is also possible to have both tonicizers in the same chord: the major-minor seventh chord and diminished triad (V^7 and vii° in Ionian, VII^7 and ii° in Aeolian). Bates omitted these chords in his table of possible tonicizing progressions, perhaps because these chords do not appear frequently in Holst's and Vaughan Williams's music (Bates 2009, 12). They do appear occasionally, however, and so I have included them here.

Mode	Tonicizers	Possible progressions
Ionian	$\hat{4} \longrightarrow \hat{7}$	(IV or ii) – (V, iii, or I^7) – I
	$\hat{7} \longrightarrow \hat{4}$	(V, iii, or I^7) – (IV or ii) – I
	Both	(vii° or V^7) – I
Aeolian	$\hat{2} \longrightarrow \hat{6}$	(VII, v, or III^7) – (VI, iv) – i
	$\hat{6} \longrightarrow \hat{2}$	(VI or iv) – (VII, v, or III^7) – i
	Both	(ii° or VII^7) – i

Figure III.2. Chart of tonicizers for modes with no TT pitches in the tonic triad.

I included major-minor seventh chords in both figure III.1 and figure III.2 because, theoretically, they could be used as tonicizing chords in any mode. However,

because of how composers used the dominant seventh in tonal music, in modal music it must proceed to the modal tonic with considerable emphasis in order to tonicize it and not the relative major. This may be part of the reason for their infrequent appearance in modal music.

The possible progressions listed for the Ionian mode include chord movements that appear frequently in tonal music. As I observed in chapter II, Holst and Vaughan Williams often avoided tonal progressions, and so their harmonic language in Ionian pieces often deviates from the progressions listed in figure III.2. The progression in example II.2 (p. 32) actually functions as part of a transition to a different tonal area than the C-Ionian opening, and so the progression only weakly maintains C as a tonic. The only harmonies to follow the predicted patterns appear in measures 20–21, where one can see a $\hat{7} \longrightarrow \hat{4}$ tonicizer pattern in the I-V-vi-ii-I chord progression.

Pieces in the Aeolian mode, however, are much more likely to follow the predicted harmonic patterns. Our example of non-tonal Aeolian from chapter II (example II.3, p. 34) includes the major-minor seventh chord (VII^7) preceded by iv, which strongly presents both tonicizers immediately before the tonic chord. This progression would sound like ii-V^7-vi in A-major, but Vaughan Williams strongly emphasizes the F♯ centricity in the measures preceding the chords, so the arrival on F♯-minor at the end of each phrase comes as an expected tonic arrival, not a tonal deceptive cadence.

Where the composers use non-diatonic pitch collections, tonic-supporting harmonic progressions would need to be established through contextual cues more than by systemic patterns like those in diatonic collections. Chords that consistently move

towards a possible tonic chord could produce the expectation of that chord with sufficient repetition. Occasionally, a pitch collection may be built by modifying some other recognizable collection. In these cases, one could treat the alteration similarly to a modal borrowing or mixture, in which case the predicted chord patterns set forth in figures III.1 and III.2 may still be used to support the tonic.

In some cases, pieces may establish more than one tonic simultaneously (bitonal). Generally, one key or mode will only embellish the other more strongly supported tonic. In cases where the keys seem to be equal, other elements of the structure may prefer one over the other. Although it is rare that a passage would support two simultaneous tonics equally, it is a theoretical possibility, and would result either from simultaneous tonics supporting a single background melodic pitch, or from the simultaneous prolongation of two distinct background elements. The bitonal passage in example II.13 (from Holst's *The Evening Watch*, p. 49) shows one tonal area embellishing the other. The static nature of the C-centric background and the return to a no-accidental pitch collection in measure 29 suggest that the flat-note pitch collection in the solo and bass parts functions as a less-structural, embellishing tonal area.

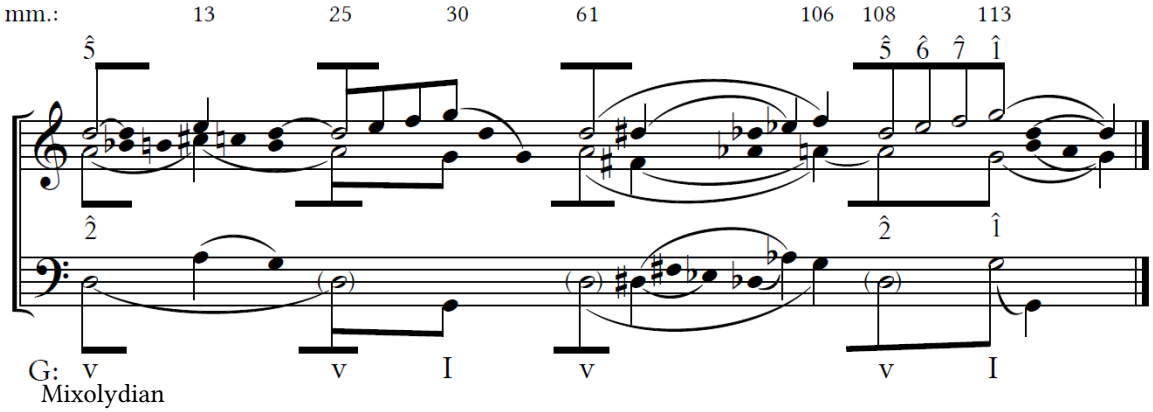
Bichordal writing appears more frequently in Holst's and Vaughan Williams's music than actual bitonal passages, and in most cases the relationship between chords is unequal, with one part of the bichord embellishing the other. One can see this in example II.14, from Holst's *The Hymn of Jesus* (p. 50). Holding the opening F♯-major chord, the first choir keeps the stable, structural element, while the second choir descends by step, embellishing the transition from the F♯-major chord to D-major in measure 201.

Another way the composer might include two different tonics in a piece is through linear presentation. Most of Holst's and Vaughan Williams's sacred choral pieces end on the same tonic that appears at the beginning, and the interior centricities fit within the scope of that monotonal structure. Occasionally a piece may end in a different tonic area than it began, in a progressive structure similar to the pieces discussed by Krebs (1981 and 1985) and Pomeroy (2004).[24] Three possible relationships exist for any given pair of tonic areas: the first may be primary, the second may be primary, or they may be equal in their treatment. Where a piece traverses more tonic areas, one would follow similar criteria for each adjacent pair of tonics. Since Holst and Vaughan Williams typically treat their endings with a strong sense of finality, the most common relationship involves directional movement from any earlier tonics to the final tonic, where it would provide the structural conclusion for the whole piece. In some cases, an earlier tonic may provide most or all of the structure with another tonic following it, but only if the following tonic is relatively brief, like a coda or transition to another piece or movement. True equality (or "tonal pairing," as in Pomeroy 2004) could only occur if both tonic regions contained a sufficient sense of resolve to have independent background structures, as though they were separate movements.

Figure II.2 (p. 42) shows the tonic relationships for Holst's *Short Festival Te Deum*. In section II.4.2, I mentioned the tonic relationships that one can find in Holst's and Vaughan Williams's music, and observed the dominant-tonic relationship between the

24. Lerdahl also talks briefly about pieces that end in a different key than they begin, but to him the justification is that the opening may prolong tonic *function* even if it does so in a different key than the conclusion (Lerdahl 1997, 150). By abstracting the prolongation to function rather than specific pitch, Lerdahl explains that listeners, who may have difficulty perceiving the relationship between the opening and concluding keys, can still hear "closure" (an adequate sense of the structure being completed) even when a piece ends in a key foreign to its opening. Listeners simply hear tonic function being prolonged rather than the specific pitch or tonal region.

modes in the *Short Festival Te Deum*. As the graph in example III.6 shows, the D-Dorian mode actually occupies a greater proportion of the piece than G-Mixolydian, and the primary thematic material in D returns four times throughout the piece while the G material only appears twice. However, a strong D bass note only appears in the beginning of the piece, and this lack of bass support, combined with an agitated accompaniment figuration, make the D-based sections sound less stable than the passages in G, in which a strong bass ostinato provides solid harmonic support for clear prolongations of the tonic chord. The soprano line also drives upward to G at each of the junctures, emphasizing the move from the dominant to the tonic.[25] While it is true that two separate tonic areas appear in this piece, it is also clear that a single harmonic motion gets prolonged, and thus the two tonic areas fit within a single, unified structure.



Example III.6. Holst, *Short Festival Te Deum*, middleground prolongation graph.

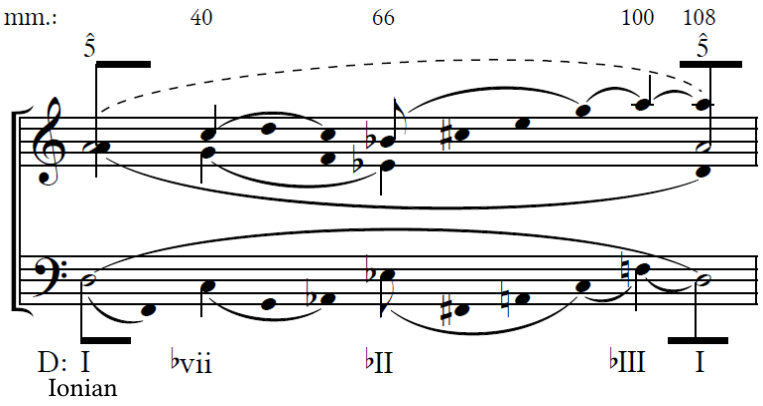
25. I have opted to include two primary linear structures in this graph, in addition to the bass arpeggiation. While the soprano voice carries a distinct ascending line that coordinates with the harmonic structure, the structural alto– which is actually part of the foreground soprano part in many places– makes a more traditional descent from 2̂ to 1̂. For more on three-part background structures in tonal music, see Neumeyer 1987b.

In chapter II, I also commented on the series of short tonic areas in measures 61–106. From the perspective of the whole piece, these function as a minor excursion away from the D-Dorian mode prevalent in the passages both before and after. Example III.6 demonstrates how these other tonics fit into the prolongation of D. The highest voice part rises stepwise to F in measure 106 while the bass arpeggiates up to G, supporting F as a chordal seventh. The agitated accompaniment associated with D-Dorian also returns in 106, and so even though the G bass note produces an unconventional harmonic structure, the whole section ultimately still prolongs D.

In some passages, frequent harmonic movement may diminish or even destroy any sense of tonic or pitch-class center. Other passages, especially highly polyphonic sections, may remain in a single diatonic collection but not emphasize any one note as a tonic for some time (pandiatonic). Whenever centricity gets lost for either of these reasons, certain strategies can help establish the relative stability of elements in the passage and determine how the passage fits the rest of the structure.

When Manning explores ways that Vaughan Williams's pieces undermine centricity– often through equal divisions of the octave, semitone relationships, and juxtapositions of divergent material– he points out that the analyst must look to other musical parameters in order to determine hierarchy (2003, 119). This is where we might use Lerdahl's salience criteria to determine which pitches or chords receive the strongest emphasis or appear most prominently. In addition to using these criteria, one must consider long-range arrivals (including the end of the piece, if necessary) and determine possible structural patterns the music may undertake to arrive at those points.

Because Holst and Vaughan Williams tended to use rounded forms and often began and ended pieces on stable tonics, centricity is most likely to be lost in the interior of a piece, which will usually prolong the primary tone in some way, or else provide a connective to move from one part of the structure to another. The palindromic structure that I referred to in chapter II for Vaughan Williams's *Lord, Thou hast been our refuge* (example II.9, p. 43) provides a useful example. Example III.7 shows a middleground graph of the piece's beginning and middle section, where all of the modulations occur. The outer sections clearly establish and prolong D, but in some passages– especially in the organ transition, measures 85–108– the centricities are only brief and weak. Understanding the global structure enables a clearer view of how the local tonics prolong the piece's primary tonic. After the top voice settles on B♭ in measure 66, it ascends in minor thirds with the bass until it reaches G, at which point it steps up to A, coupling the primary tone in a higher octave.



Example III.7. Vaughan Williams, *Lord, Thou hast been our refuge*, middleground prolongation graph of mm. 1–108.

Even though this example does not present an extreme case of lost centricity, it demonstrates that in passages where centricity weakens or disappears, examining the larger process of the piece can help one understand how the lost centricity functions within the piece, and how emphasis of local elements (temporary tonics or even just chord roots) can be used to determine the path a voice takes to reach a stable tonic or pitch-class center.

III.3.2. Establishing Harmonic Stability

Because triads were fundamental to Holst's and Vaughan Williams's harmonic practice, they also form the basic stable harmony from a structural standpoint. However, extended tertian harmonies and quartal chords may also be considered stable in certain passages, depending on the harmonic language of the piece and how the chords are treated. Väisälä's process for determining what he called the "referential harmony" can help in ascertaining what constitutes a stable harmonic structure for a given piece of music. He uses the beginnings and endings of sections or phrases, especially the endings, as well as melodic chord outlining and arrival points. He also examines the voicing of blocked chords, considering those with spacing similar to the overtone series to be more stable (2004, 89–92).

Even though Holst and Vaughan Williams did not explicitly favor the overtone series as a basis for their harmony, the psychoacoustic principles described by Lerdahl and Väisälä indicate that listeners seem to perceive a given sonority as more stable when it more closely resembles the pitch relationships, intervals, registration, and spacing of the overtone series. It therefore seems reasonable in Holst's and Vaughan

Williams's music to interpret sonorities that are more similar to the overtone series as more harmonically stable than other sonorities.

Since they based most of their sacred choral music on triadic modality, most non-triadic harmonies would revert to triads at a deeper level of structure in order to align with the shape of the tonic chord. For extended tertian (and added-tone) chords, one could consider the non-triadic pitches as chord tones at the foreground level and reduce the chord to the fundamental triad at a deeper level. Quartal chords do not revert as easily to triads, but if they result from temporal shifting, one could alter them accordingly (the triadic pitch should appear immediately before or after the quartal chord, such as through a suspension). The chord in measure 30 of Holst's *Short Festival Te Deum* (see example III.6) contains a number of diatonic pitches added to the triad, but when the same arrival occurs the second time in measure 113, Holst only uses triad pitches. This reaffirms the importance of the triad as a conclusive and stable sonority in Holst's and Vaughan Williams's music and shows that at a deeper level, a chord may contain less stable elements even if the harmony itself is stable.

To help in determining relative stability among diatonic triads, one can develop harmonic hierarchies for each mode and for each piece according to the progressions given in figures III.1 and III.2. Once the tonic has been established, chords built on it would be the most stable, followed by those treated as tonicizers or cadence-forming harmonies. One can establish hierarchy among most of the diatonic triads largely based on internal structure (whether or not they include the characteristic scale degree), contextual emphasis (including metrical placement), and repetition. Although composers frequently use the chord built on $\hat{5}$ in modal music as a structurally salient

harmony, they do not always treat it as the primary means of tonic prolongation, and therefore it may or may not form part of the background structure.

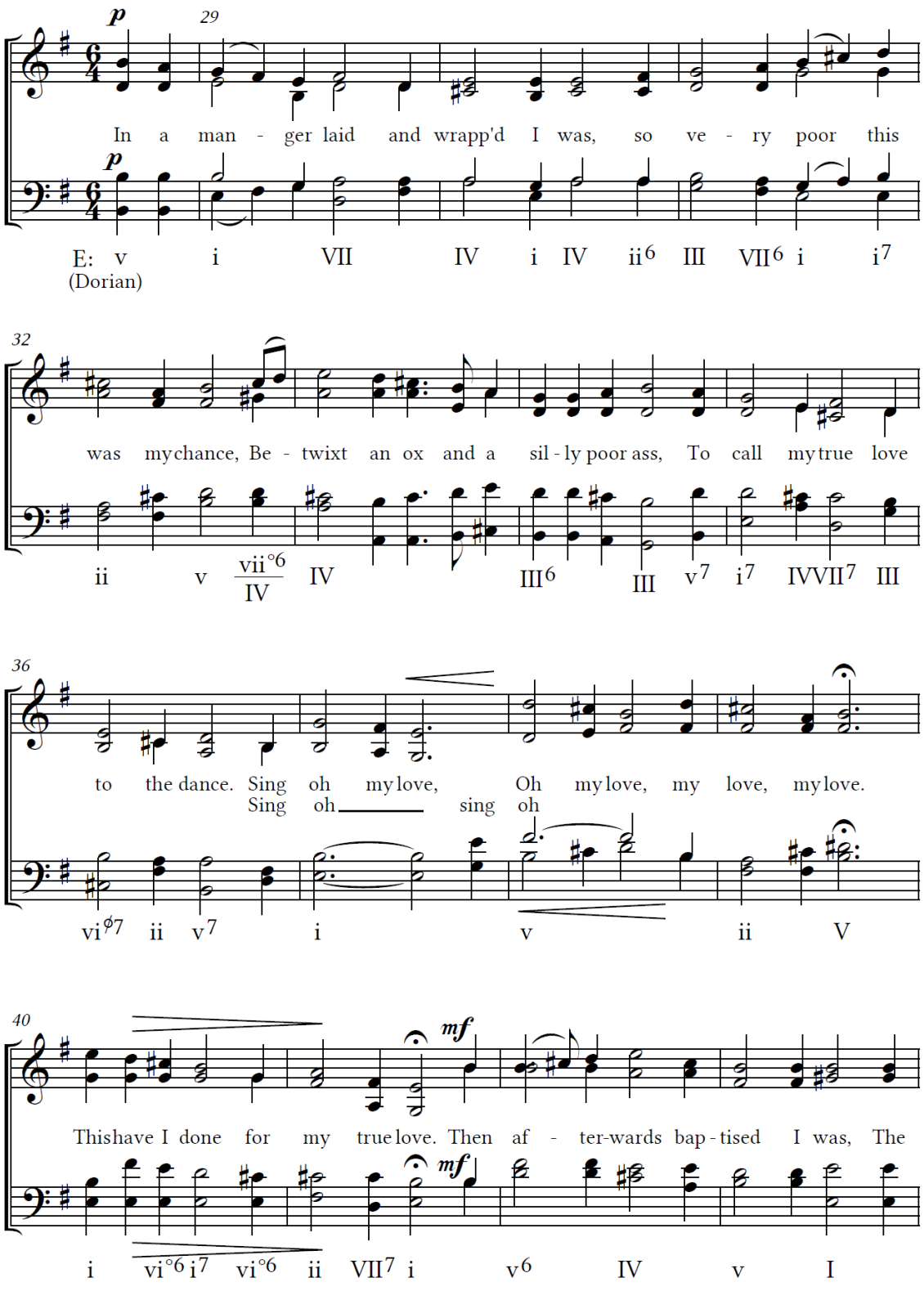
Once the hierarchy among diatonic chords has been established, one can categorize harmonies outside of the primary mode as modal borrowings (mixture), secondary progressions, changes of tonicity, or bitonality/bichords. Borrowed chords typically fill the same structural role as the diatonic version, but because of the modal flexibility Holst and Vaughan Williams exercised, one would likely maintain the altered quality even at deeper structural levels unless some feature of the music prompts altering it (assuming it is a stable chord). By "secondary progressions," I refer to passages where the harmonies seem to support a non-tonic sonority temporarily, like tonal secondary tonicizations. For these, one may need to establish a hierarchy for the secondary progression, but the harmony supported by the secondary progression would fit into the hierarchy of the larger mode. A change of tonic may be part of global directional tonality or a local modulation, but in either case, one could establish a harmonic hierarchy for each tonic area and then decide on the relationship between the two areas as discussed in III.3.1.

I also discussed bitonality in section III.3.1, but with respect to bichords, principles regarding harmonic hierarchy must be taken into account within a single simultaneity. Usually, Holst and Vaughan Williams constructed bichords out of triads, which means that the internal structures of the two harmonic components are the same. Sometimes, however, the two components may have different construction, so the comparative stability of each component may affect the relationship between them and the interpretation of which chord carries more structural weight. One must also

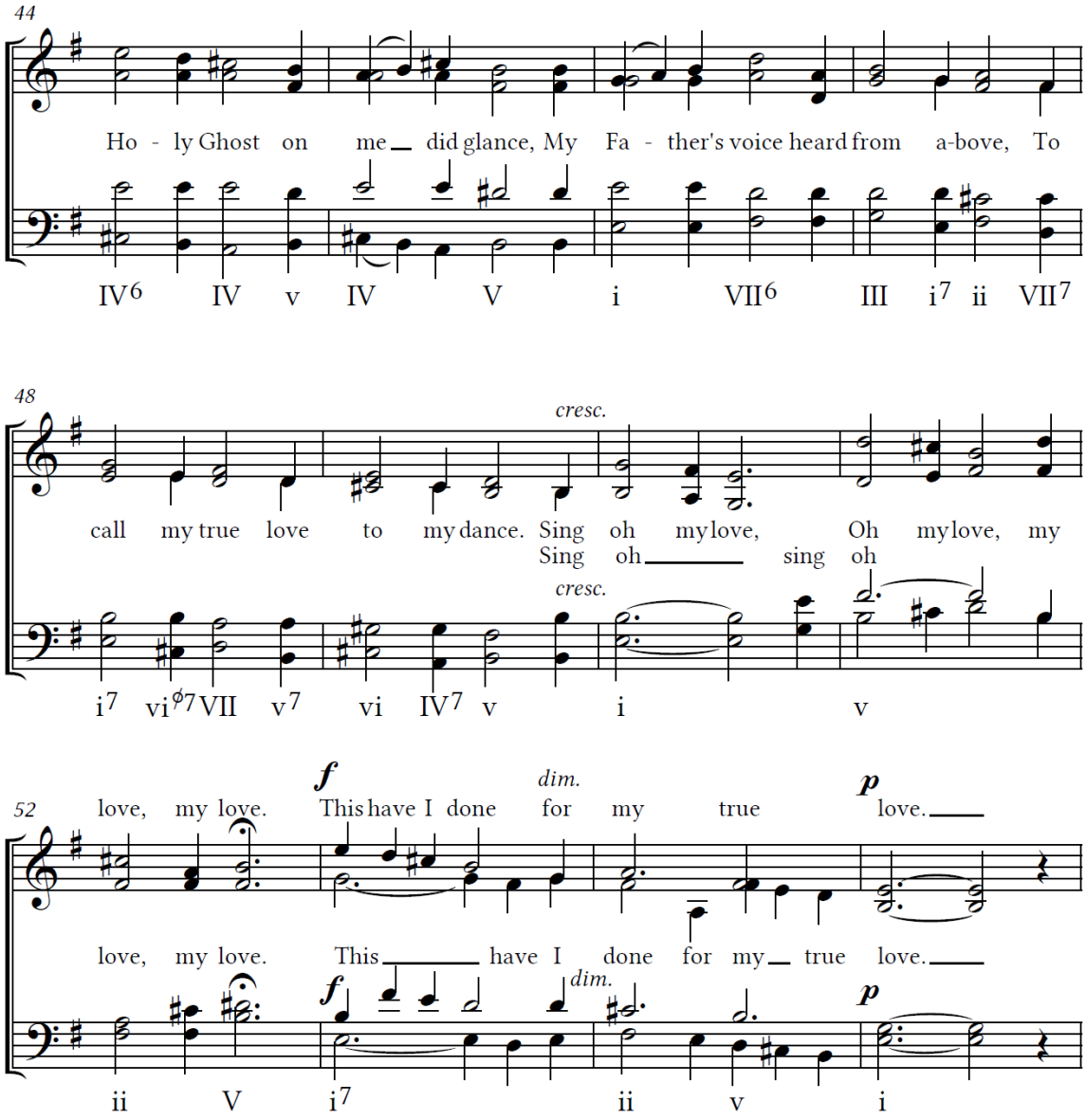
consider the relationship between the roots of the two components as well as between each root and the extant mode. In most cases, one component of a bichord embellishes the other, but in some bichords the relationship may be equal and the function of the bichord in the harmonic hierarchy would be evaluated based on its combined form.

To demonstrate the establishment of harmonic hierarchy in modal music, I have included two excerpts from pieces by Holst in examples III.8 and III.9. The first, from *This Have I Done For My True Love*, establishes the E-Dorian mode by arriving on the tonic chord at three significant points in each cadence (measures 37–41, and 50–55) as well as periodically throughout the verse. Holst prepares most arrivals on the tonic chord with the dominant– which appears both as a minor and a major triad– and pauses on it in measures 39 and 52 for emphasis. Almost every instance of a dominant chord includes ii or IV immediately preceding it. This confirms that in modal music the dominant may retain the same role as it does in tonal music, but because of the necessity of establishing the mode with its characteristic tonicizer(s), chords containing the tonicizers will normally appear in close proximity to the dominant and tonic. Because this piece uses ii and IV frequently, especially in preparing the dominant chords, its syntax closely resembles tonal music, the primary difference being the chord qualities resulting from the mode. As a result, the harmonic structures at the middleground and background will also closely resemble those in tonal music, with the dominant as the primary means of prolonging the tonic.

Example III.9 contains the last verse from Holst's *Psalm 86*. In addition to cadences, this passage establishes the tonic through melodic ascents and descents that emphasize pitches from the tonic triad. As in the previous example, Holst treats the

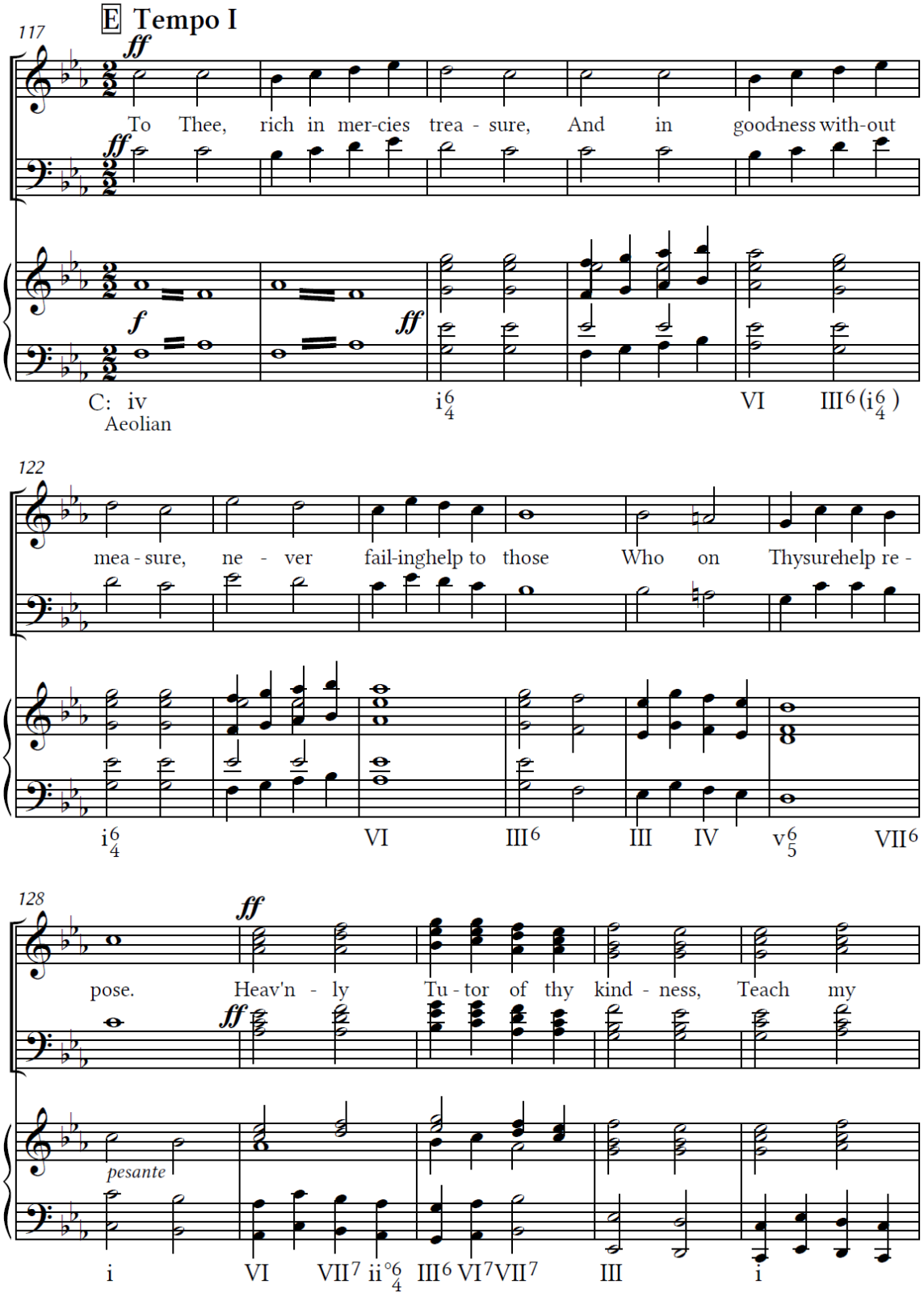


Example III.8. Holst, *This Have I Done For My True Love*, mm. 29–55. (continues on the next page)

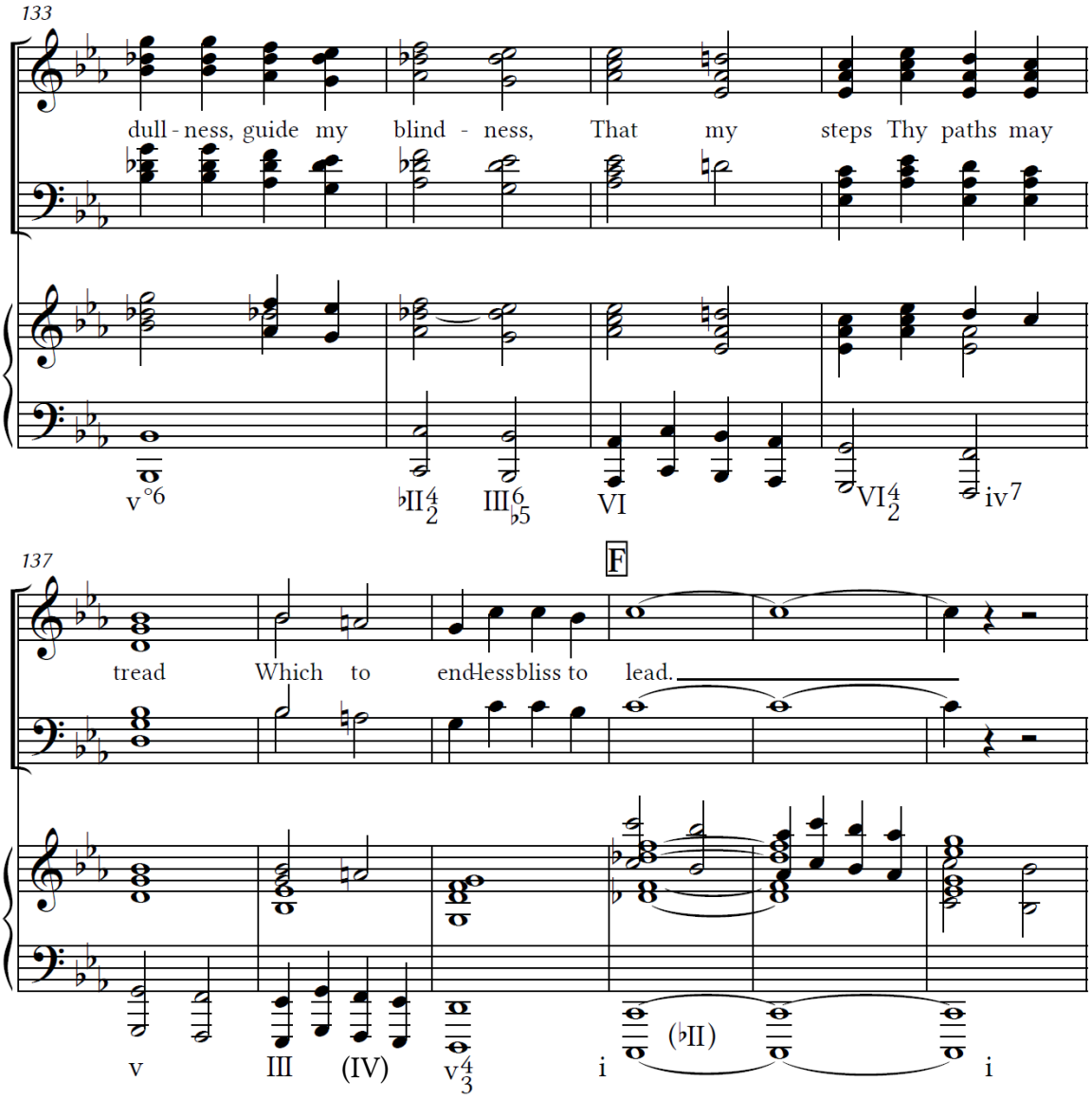


Example III.8. (continued)

minor dominant as the structural tonicizer, using it at each of the major cadences, which results in a similar background structure. However, Holst's use of secondary harmonies create a modal ambiguity at the foreground and middleground levels that decorates the otherwise-conventional background. The melody stays strictly within the Dorian mode,



Example III.9. Holst, *Psalm 86*, mm. 117–142. (continues on the next page)



Example III.9. (continued)

but since ĝ appears in the melody only shortly before each cadence (measures 126 and 138), Holst has the freedom during the rest of the melody to fluctuate between Dorian, Aeolian, and Phrygian. An incomplete IV chord supports the Dorian ĝ, but III receives more contextual emphasis and appears more frequently. Since the mediant is the only triad other than the tonic to maintain the same quality in all three of the modes

presented, Holst's use of it emphasizes the modal ambiguity of the passage. The appearance of ♭$\hat{2}$ starting in measures 133–134 begins as a surface embellishment of the verse's harmony, but it continues to return throughout the coda (following the excerpt) in alternation with the tonic, and this repetition makes it an important part of the middleground.

III.3.3. Establishing Melodic Stability

Since melodies in Holst's and Vaughan Williams's music tend to either move by step or use skips that outline the harmony, their middleground and background structures will tend to look similar to those in tonal music. One would therefore expect to see similar stepwise motion in long-range melodic progressions, and skips would likely belong to the prolonged harmony. In the process of analysis, then, we can look for pitches that would form part of a horizontal line and pitches that are part of a hierarchically important harmony. One can see these features in the analytical graphs in examples III.6 and III.7. In III.6, most of the stemmed pitches reside within a whole step of the pitches surrounding them, and slurs show the harmonic outlining for any exceptions. The bass motions in measures 61–108 do include some skips that outline secondary harmonies, such as between the D♯ (E♭) and A♭ (part of an A♭ chord), but these skips follow harmonies at a more local level, and one can still see the significance of stepwise motion and harmonic skips. In III.7, a series of skips occur in unstemmed notes that do not outline a harmonic unit, but as I discussed earlier they follow a pattern that helps connect elements at a deeper structural level. Those elements– the stemmed notes– do follow expectations.

Reiterated melodic patterns, such as a repeating bass ostinato, appear frequently in the music of Holst and Vaughan Williams, and these patterns usually signal the prolongation of a single entity. As with determining the tonic for a passage, we can look at the beginnings and endings of melodic lines for stable pitches, and even high and low points in register– such as melodic climaxes– can help establish the stability of a particular pitch.[26]

In analyzing tonal music, we expect to see certain pitch patterns at the middleground and background based on melodic tendencies inherent in the tonal system. If we look again at the pitch patterns Larson (1997–98) describes using his metaphorical forces, we see that these patterns include those common in deeper levels of structure as well as in the foreground. In order to predict the patterns we would expect to see in modal music, we can start with his patterns for Major and reevaluate how the patterns would change for the different interval structures of each mode. Larson's melodic patterns connect members of the tonic triad, and since Holst and Vaughan Williams normally also constructed their compositions around a modal tonic triad, modal patterns will still start and end on the same scale degrees. The intervallic makeup of the modes will be the most significant difference, and the reason for reevaluating the patterns based on Larson's forces.

The table in figure III.3 shows (using scale degrees) the patterns that Larson predicted for major keys in the second "Ionian" row, and possible deviations for each mode in the remaining rows. Larson includes all motions that have at least one force working in their favor, but lines at deeper levels of structure are more likely to match

26. Macan observes that both composers took some care in the placement of high and low points in their melodies, and Vaughan Williams tended to use "gradual ascents towards an overall registral highpoint" as a significant melodic device (Macan 1991, 191, 223).

those patterns that follow two or three forces because the movement would be stronger. I have therefore separated the patterns according to the number of forces involved in the completion of the pattern. These patterns could potentially help predict typical foreground, middleground, and even background melodic motions, and while the patterns here refer only to prolongations of the tonic, the same patterned logic could be applied to prolongations of other chords, where 1, 3, and 5 could simply refer to chord tones.

	3 forces	**2 forces**	**1 force**	**0 forces**
Lydian	none	5-4-3, 3-4-5	3-4-3, 5-4-5	
Ionian	5-4-3	3-2-1, 3-4-3, 5-6-7-8, 8-7-6-5	5-6-5, 1-2-1, 1-7-1, 3-4-5, 1-2-3	5-4-5, 3-2-3
Mixolydian	(8-7-6-5)*	(5-6-7-8)*		1-7-1*
Dorian	(8-7-6-5)*	(5-6-7-8)*, 5-4-3, 1-2-3	3-2-3, 3-4-3	1-7-1*
Aeolian	8-7-6-5	5-6-5, 5-4-3, 1-2-3	3-2-3, 3-4-3, 5-6-7-8	1-7-1*
Phrygian	8-7-6-5, 3-2-1	5-6-5. 5-4-3, 1-2-1	3-4-3, 5-6-7-8	1-7-1*
Locrian	3-2-1	5-4-3, 3-4-5, 1-2-1	3-4-3, 5-4-5, 5-6-7-8	1-7-1*

*magnetism could pull 7 to 6 or vice versa because of the half-step interval, but since 1 is the nearest tonic chord pitch, the magnetic pull could also lead 7 back up to 1.

Figure III.3. Pitch patterns following Larson's musical forces (numbers represent scale degrees). The second row contains all patterns for Ionian (major), while the remaining rows show which patterns differ for each mode.

Due to the magnetic tendency of pitches to move to the closest stable pitch, we can add the 5-4-5 pattern in the Lydian mode, but 3-4-3 becomes less likely. The combination of magnetism and inertia (the tendency to keep moving in the same direction) make the Lydian 3-4-5 a stronger motion also. Mixolydian remains the same

as Ionian except that 1-7-1 contains a whole-step, which weakens its completion, a circumstance that applies to all modes except for Ionian and Lydian.[27] Because of the lowered pitches in the remaining modes, melodic motions in the upper part of the scale are more likely to descend than ascend.[28] The 5-6-7-1 pattern in Aeolian and Phrygian, therefore, would have both gravity (the tendency to descend) and magnetism pushing $\hat{6}$ back down to $\hat{5}$ instead of up to $\hat{7}$, making it very unlikely. In tonal minor keys, the raised $\hat{6}$ and $\hat{7}$ (melodic and harmonic minor) make the 5-6-7-1 pattern stronger, but these kinds of alterations rarely occur in Holst's and Vaughan Williams's modal music.

Not all modal melodies follow patterns predicted by Larson's forces, however, in large part because of the need to include each mode's characteristic pitch(es) in close proximity to the tonic triad. The 1-7-1 neighbor pattern, for example, appears frequently in modes with a lowered subtonic, but while magnetism could draw $\hat{7}$ back to $\hat{1}$ rather than $\hat{5}$, gravity, inertia, and the half-step between $\hat{7}$ and $\hat{6}$ all dictate that it should descend. One possible reason for this pattern's frequency is that composers tended to use patterns that imitate those in tonal music even though the exact intervals are different. Another reason would be to emphasize the character of the mode.

In order to reach a tonic conclusion, background melodic progressions would need to conclude on $\hat{1}$. Since modal interval structures only affect lines leading to $\hat{1}$ that involve an ascent (from $\hat{7}$), background lines will generally look much like those in tonal music, with melodic lines that descend to $\hat{1}$ from other tonic chord members. Schenker

27. Burns also discusses the modal intervallic differences in neighbor tones around structural pitches (1995, 53–54, 128–136).

28. Two turnaround patterns– 5-6-7-6-5 and 8-7-6-7-8– could be added because in Mixolydian and Dorian, magnetism between 6 and7 allows for a reverse of direction mid-pattern. However, these patterns do not appear frequently in modal music.

reasoned that the background must descend because it represents the "cessation of all tensions and efforts" ([1935] 1979, 13), and therefore involves moving towards a state of rest. Rather than striving for a point of rest, however, composers occasionally choose to portray an increase in energy or excitement in a piece, and one means of doing so involves using ascending structural motion instead of descending. Neumeyer (1987a) points out a number of places in tonal literature where an ascending *Urlinie* seems more appropriate than a descent, and since Holst and Vaughan Williams exercised considerable freedom with melodic tendencies, we will consider ascending background and middleground lines a viable possibility.

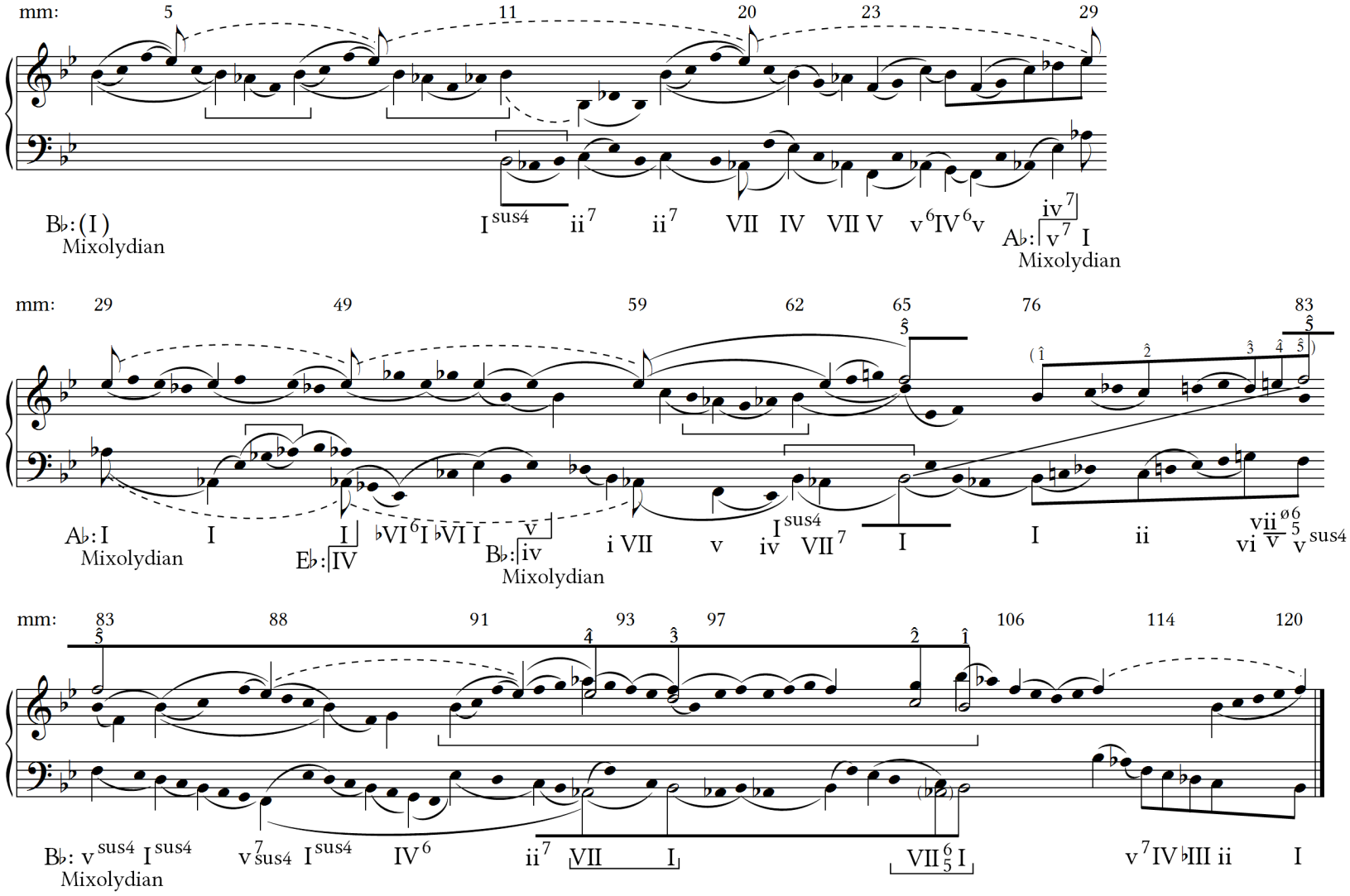
Most of the diatonic modes have interval structures that favor descending lines in terms of Larson's musical forces. Lydian, Ionian, Mixolydian, and Dorian do include the 5-6-7-1 pattern as a possibility, but it is only strongly supported by Larson's forces in the two modes with raised $\hat{7}$. I observed earlier that modal music often deviates from the predicted patterns because of the necessity of including mode-defining scale degrees, and the harmonies that Holst and Vaughan Williams used may also affect the linear structure. If a background bass moved from $\hat{2}$ to $\hat{1}$, then the upper line would more likely ascend to avoid doubling the bass. Holst's and Vaughan Williams preference for moving towards registral high points also favors ascents, although these may often be middleground or inner-voice lines rather than background lines.

Text representation may also influence the choice between descending and ascending lines. In Holst's *The Evening Watch* (example III.5), the "Body" speaks of resting, which one could represent using descending motion, but Holst's structure centers more closely around the "Soul," which speaks of heaven and how the end of

man's life in this world coincides with the beginning of life in the eternal world. His use of an ascending background line thus portrays the movement of the individual upward to heaven and to eternal rest. In Holst's *Short Festival Te Deum* (example III.6), not only does the text convey joy and excitement generally, the ascending line occurs over the text "world without end," again pointing to an association between text and the structural ascent.

To further demonstrate the relationship between the predicted patterns and melodic structure, I have included a complete foreground graph of Vaughan Williams's *O, Clap Your Hands* in example III.10. One of the reasons for the weakness of the tonic at the beginning of the piece that I mentioned in II.4.5 comes from the emphasis of E♭ (4̂) in the opening melodic line. B♭ also receives some emphasis, but Vaughan Williams keeps it below the E♭ and never accompanies it with a full tonic chord, whereas the E♭ gets harmonized by a complete A♭ chord in measure 20. By following the foregoing ideas regarding stepwise motion and musical forces, we can trace the middleground path of both pitches through the piece. Measures 23–29 show that, at least initially, the lower B♭ part rises stepwise to join E♭ as the primary structural element above a new A♭ tonic.

After B♭ gets reestablished in measure 58, the forces of magnetism and gravity would dictate that the E♭ should resolve down to D. We could hear this resolution as a motion to an inner voice in measure 65, but Vaughan Williams actually pushes the E♭ upwards to F to establish 5̂ as the primary tone. F then receives some of the same harmonic and melodic emphasis as the E♭ throughout the first half of the piece, including another stepwise ascending line from B♭ in measures 76–83. These ascending



Example III.10. Vaughan Williams, *O, Clap Your Hands*, foreground prolongation graph.

lines required moving against gravity to get started, but once Vaughan Williams starts the lines, inertia drives them up until they reach their respective stable destinations. In the first line (measures 23–29), magnetism only functions to weaken the establishment of E♭, whereas in measures 76–83, Vaughan Williams changes the intervals of the line by raising E♭ to E♮, which postpones magnetic fulfillment until the very end of the line, where the half-step between E and F creates a magnetic pull upward to finish the ascent.

Melodic figures in measures 88 and 92 suggest E♭ once again, but the harmony continues to support F as the background element until the return of an A♭ chord in measure 93. At this point, the highest voice reaches a registral climax on the A♭, but with the E♭ sounding in the second soprano part. Measure 95 returns to B♭ harmony, but since the E♭ is already in an inner voice, the structural resolution on D also appears in an inner voice. The climactic A♭ in the highest voice gives in to gravity and then inertia in its descent, and the continuation of that descending motion would also lead us to hear the E♭ in measure 96 as descending to D because of the influence of those additional forces.

At the highest registral climax in measure 106, the background line continues to descend in the inner voice rather than leap up to the higher parts, maintaining stepwise motion and following Larson's forces at the background level. The high points on A♭ and B♭ correspond with structural points in the background line, but come from a reaching over of the lower voice part. This shows that Vaughan Williams did use register to signal structure, but in this case he uses pitches from another voice, not the actual background pitches, for the registral high points.

The relationship between the two climaxes also shows an example of the $\hat{7}$-$\hat{1}$ whole-step neighbor pattern discussed earlier. We can see examples of this neighbor pattern throughout *O, Clap Your Hands*, as shown by brackets in example III.10. Starting with the appearance of B♭ in the opening measures, Vaughan Williams introduces the neighbor idea as a middleground lower-voice pattern (this is part of the reason we can identify the registral climaxes as an extension of the inner voice). It becomes part of the bass and harmony in measures 11–14, and in the A♭ section in measures 29–49, Vaughan Williams continues to use Mixolydian VII-I harmonic progressions. Measures 60–76 use local $\hat{7}$-$\hat{1}$ neighbors in both the melody and bass parts, and to accompany the background pitches Vaughan Williams again uses VII-I as the background harmonic pattern. Even the overall tonic scheme– I-VII-(IV)-I– follows the same lower-neighbor pattern. This shows that the composer used the whole-step lower neighboring tone not just as a melodic idiom, but as a significant motivic device that unifies the whole piece while accentuating the Mixolydian character.

With the exception of the Mixolydian neighbor motions, *O, Clap Your Hands* uses melodic structures that conform to predictions made by Larson's musical forces as well as to the premises regarding stepwise motion and skips outlining harmonic units. In Mixolydian, the descent to tonic from $\hat{5}$ results from a combination of two strong melodic patterns: 5-4-3 and 3-2-1. The middleground ascending lines to E♭ (m. 29) and F (m. 83) also contain viable melodic patterns, but the one to E♭ is weaker, corresponding to the pitch's secondary structural function.

Like the Holst pieces mentioned above, we can find additional reasons for Vaughan Williams's use of middleground ascending lines in the text. The psalm used in

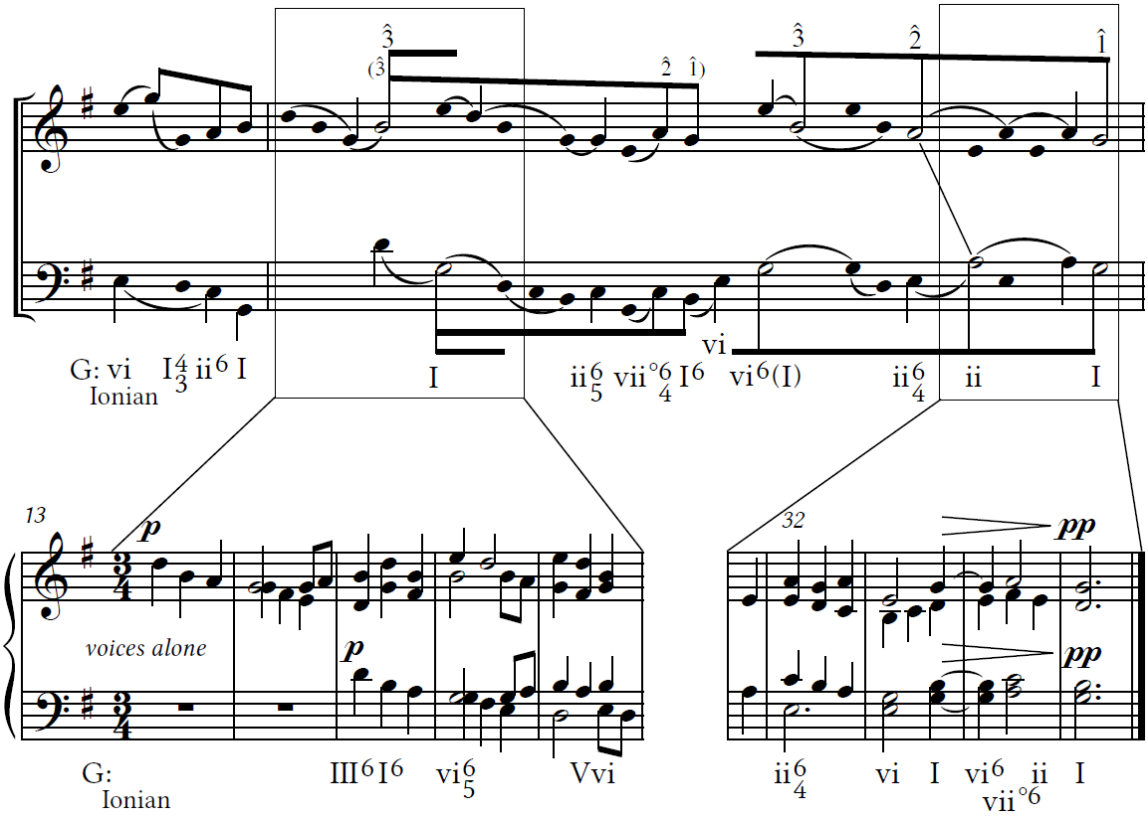
the piece, Psalm 47, contains a number of references to setting God above other things vertically, such as "the Lord *most high*," "King *over* all the earth," "God is gone *up*," and "reigneth *over* the heathen" (my italics). By using ascending melodic motions at significant structural points throughout the piece, Vaughan Williams accentuates the idea of praising God and striving for something higher. He seems to want to instill a sense of increasing energy and excitement while maintaining the resolve resulting from a descending background.

While it is clear that in diatonic collections governed by triadic harmony, one can find melodic structures that conform closely to the principles given for melodic stability, the structure of melodies that use other pitch collections may not follow as closely. Nevertheless, the listener would most likely still hear pitches contained in the governing harmony of any collection as relatively stable pitches. These may or may not follow melodic tendencies predicted by Larson's forces, but in the absence of other criteria, the forces provide a guide for determining preferred melodic patterns.

The relationship between the melody and bass in *O, Clap Your Hands* shows that Vaughan Williams used both conventional and unconventional counterpoint techniques at every level in his music. Holst and Vaughan Williams generally maintained a distinction between independently moving melodic parts and parts that remained dependent and therefore moved in parallel. Even independent lines may or may not follow older counterpoint practices, however, and may include parallels, unresolved dissonances, or other features avoided in older styles. For the sake of determining possible counterpoint structures for the middleground and background, the preceding

principles regarding melodic and harmonic stability can combine with an examination of foreground features to reveal the structural counterpoint practices for each piece.

Vaughan Williams's short motet *O Taste and See* contains elements of both independent voice leading and parallel motion, and so it demonstrates the types of counterpoint under consideration. Example III.11 contains both a middleground graph and two excerpts from the piece. A brief organ introduction establishes a harmonic pattern that recurs throughout the piece: vi-I-ii-I (or sometimes just vi-ii-I). Since the same root progression occurs at each significant cadence, we can use it as a basis for harmonic stability, where I would be most stable, followed by ii and vi. By itself, this



Example III.11. Vaughan Williams, *O Taste and See*, middleground prolongation graph, and mm. 13–17, 32–35.

progression does contain both tonicizing pitches, but the F♯ appears in less structural parts frequently enough to establish the Ionian mode. The melodic structure adheres to tonal patterns and the principles outlined above very closely, following a conventional 3-line at the background. The staggered entries in the first score excerpt (measures 13–17) imitate the original melody at tonic and dominant intervals, and the voice parts remain independent through most of the piece. At the end of the piece (measures 33–35), however, Vaughan Williams suddenly moves into parallel or similar motion in all of the parts, with parallel octaves in the outer voices. This enables him to use his established harmonic progression in root position, but because of the way the primary line is harmonized, parallel motion also becomes part of the background.

One could consider two alternative backgrounds in order to avoid parallels. The first involves harmonically supporting the A ($\hat{2}$) with the bass E. The result in this case would include an arpeggiated bass, but the interval succession at the background would include a perfect fourth with an irregular approach and resolution. The second alternative would involve implying a bass note C under the ii chord, putting it in first inversion. The 1-4-1 bass progression would suit the upper line, but the inverted harmony would not accurately represent what happens in the piece. Since Vaughan Williams uses both second inversion triads and parallel motion at the foreground in this piece, one would expect to find similar features at deeper levels of structure. Following the principles of melodic and harmonic stability that I have described and examining the types of counterpoint found on the surface of the music can help bring out and clarify the types of counterpoint that tend to occur in a given piece.

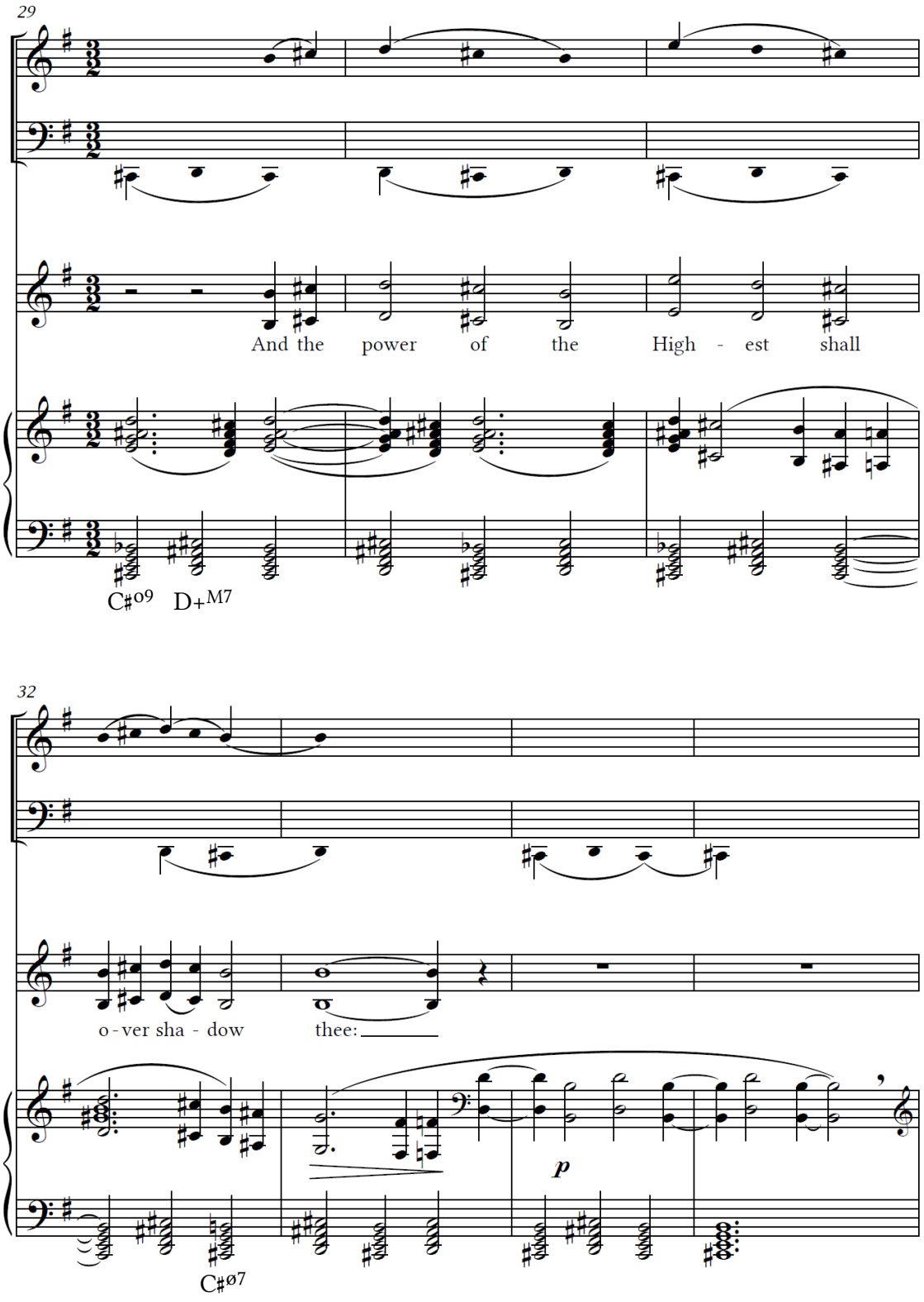
III.3.4. Following Recognizable and Predictable Patterns

For a Schenkerian analysis to truly reflect the shape of a piece of music, some attention must be given to the relationship between the piece's prolongational structure and its formal design. It is this relationship that resides at the forefront of Brown's discussion of prototypes in Debussy, and it is a significant factor in Krebs's discussions of tonal pieces with more than one tonic. Macan also included the comment that static sections in Holst's and Vaughan Williams's music typically prolong some single structural element (1991, 294). The music of Holst and Vaughan Williams, therefore, will also typically follow patterns that coincide with its formal structures, and so it will be helpful to determine ways in which the composers followed prototypical patterns in their compositions.

I observed in II.4.5 that in the sacred choral music, block contrasts may not have been as distinct or as dissonant as in other genres, but they still often feature prominently in the music. From a structural standpoint, that may mean that static sections could prolong stable or consonant elements as well as unstable or dissonant ones. Harmonically mobile sections could prolong a single element, which one may find at either end of the passage, or they could provide a transition from one element to another. Middleground and background lines can be found in either type of section, since as Macan points out, goal-oriented melodic motion can be found in harmonically static sections as well as in other places (1991, 294). The arrival on the final tonic normally requires some harmonic stability, however, which means that it will come at the end of harmonically mobile passages or in relatively consonant static sections.

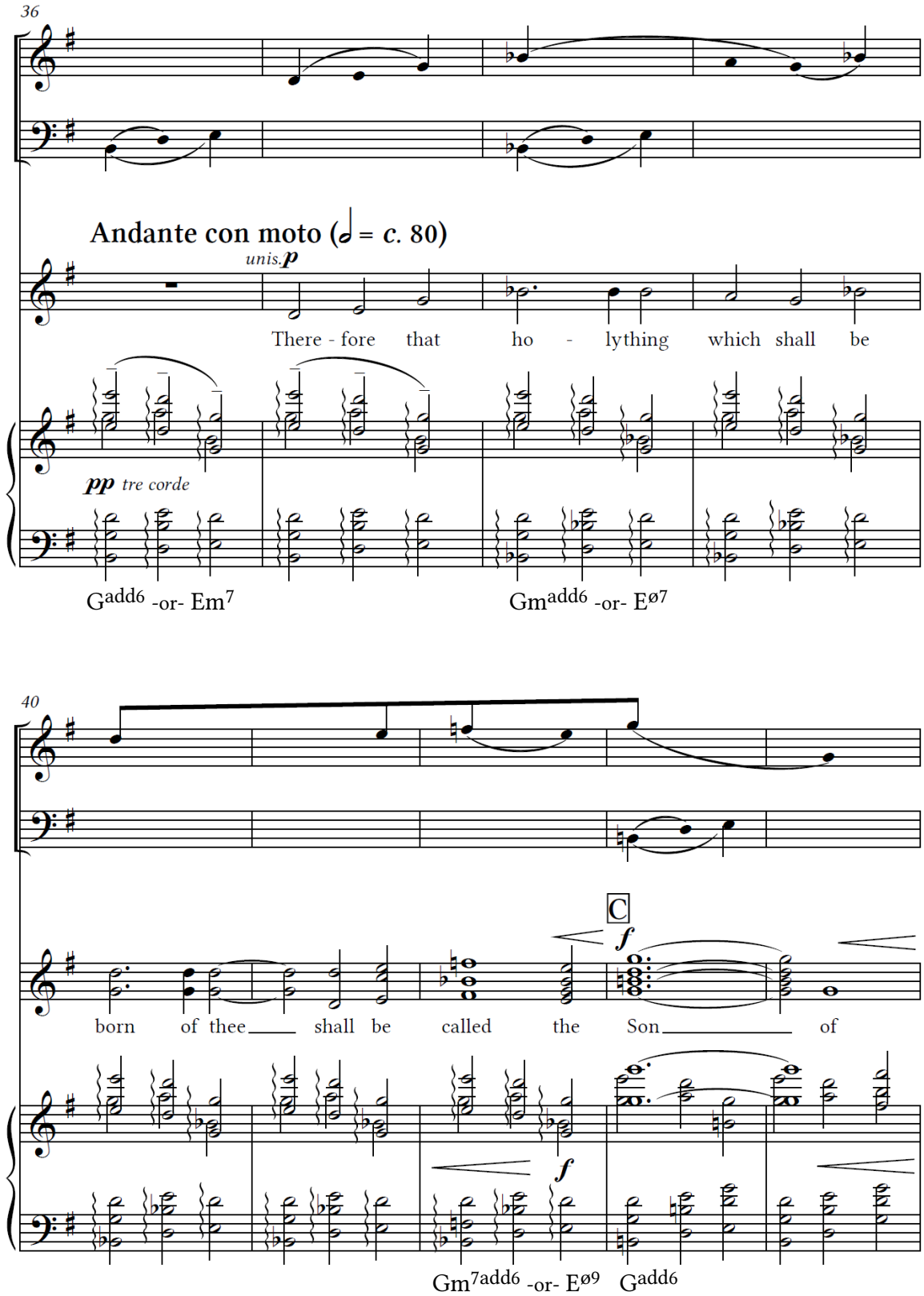
As I have shown in example II.12 (p. 48), Vaughan Williams's *Magnificat* contains some of the most dissonant passages found in either composer's sacred choral works. The *Magnificat* still contrasts relatively consonant sections with the dissonant passages, however, and I included one such transition in example III.12. The first part of the example, measures 29–32, contains alternations between two highly dissonant chords, but with a melody that could function in B-minor. In spite of the unstable harmony, one can see that the bass primarily prolongs C♯ because it begins and ends the passage and receives more metrical emphasis. The upper voice follows an ascent-descent pattern that seems to settle either on B or D (with B as a chordal embellishment). In measure 36 the mood changes rather abruptly with the introduction of a diatonic pitch collection. The mode here could be interpreted as G-Ionian or E-Aeolian because both G and E receive similar emphasis. The B♭ in measures 38–42 embellishes the mode, but B♮ returns in measure 43. The melodic line contains a clear ascent from D up to G in measures 40–43, and the full G-major triad in the chorus points to G as a more likely tonic for the passage than E. In terms of block structure and formal patterns, then, we can see that the first dissonant section establishes D in preparation for the consonant section, where the line rises to G. At the middleground, the dissonant section is static melodically as well as harmonically and the consonant section contains more motion in both parts.

While understanding the nature of formal blocks can help us determine local prolongation patterns, we can also establish expectations for overall structural patterns based on the types of forms found in the music. Strophic and modified strophic settings normally would follow the same structural pattern in each verse, but Holst often



Example III.12. Vaughan Williams, *Magnificat*, mm. 29–44, with prolongation graph.

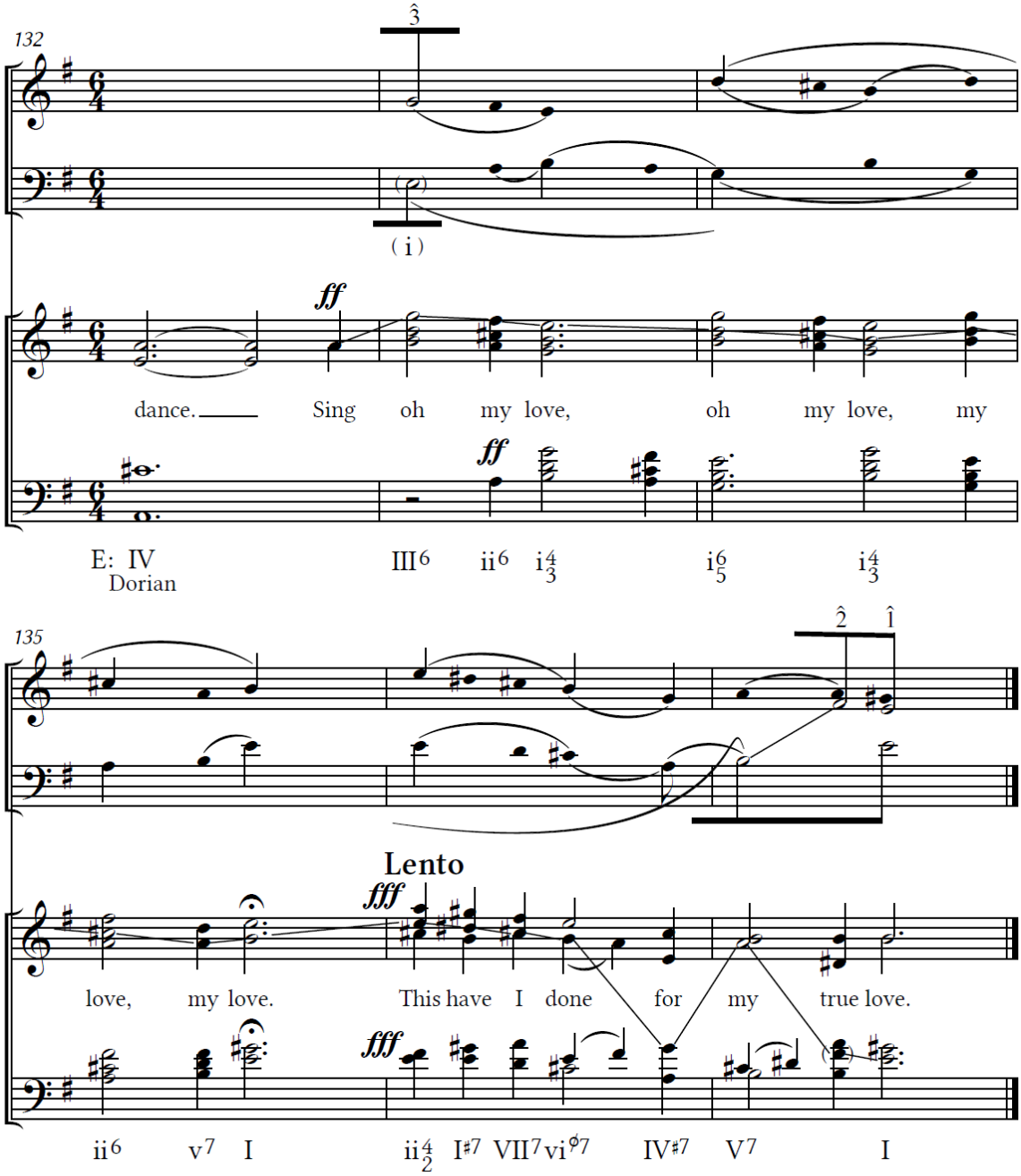
(continues on the next page)



Example III.12. (continued)

changes the harmony and texture in successive verses, and occasionally changed other elements as well. This results in minor changes of structure, depending on how the composer treats each verse.

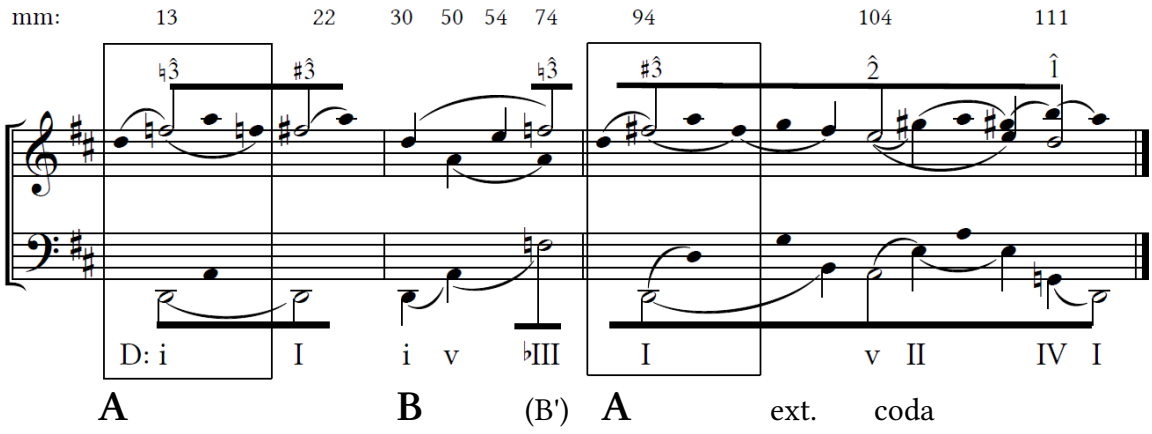
Holst's *This Have I Done For My True Love* contains eleven text stanzas grouped into pairs for each verse of the song except the last, which contains only one stanza. The piece starts with a solo, and then the ensemble sings the second verse with the melody in the soprano part (example III.8 contains the second verse). In the third, fourth, and fifth verses, the melody moves around between all four voice parts and with a variety of different textures, including slower note values in the accompanying voice in some places and staggered entrances in others. These shifts change both the bass lines and the harmonies, which makes minor alterations in the structure for those parts. The melody remains essentially intact through each verse, however, except at the very end of the last verse, where the voice switching becomes so excessive that one can hardly trace the melody at all. Example III.13 shows the end of the piece, and lines placed in the score show the notes of the melody as they travel between each of the parts. The graph shows the structure of the melodic segment as it would appear in any verse, but with the harmonies as used in the final verse. After having heard the same melody a number of times, listeners would no longer need the exact melody or the harmonies that originally accompanied it because the structure remains the way it was in previous verses. For this reason we can imply a tonic bass note in measure 133 and the background $\hat{2}$ in measure 137, even though they do not actually appear in the choral parts.



Example III.13. Holst, *This Have I Done For My True Love*, mm. 132–137, with prolongation graph.

Just as strophic pieces repeat their melodic structures in each successive verse, repeated material in other form types will also contain the same structural elements and progressions. Formal repetitions may occur on a spectrum from exact repetition to highly elaborated variation, and so the repeating structure may likewise exhibit varying levels of exactness. Rounded (ABA) forms will normally have a complete, or near-complete, structure within the repeated section that will appear in complete form at the end of the piece in order to provide a conclusive structure for the whole. Free-ended forms may also include internal repetitions, but the function of these repetitions varies, and so they may have a complete or near-complete structure like rounded forms, or the repeated section may prolong only one element with the conclusive part of the structure appearing at the end of the piece.

Vaughan Williams's "Easter Hymn" from the *Three Choral Hymns* exhibits a combination of modified strophic and rounded forms. The "alleluya" (A) sections at the beginning and ending of the piece provide an outer frame for three hymn verses (B). As shown in example III.14, the A section establishes the primary tone in both the minor (♮$\hat{3}$) and major (♯$\hat{3}$) inflections. Each verse has a different tonic: D (i), A (v), and F (♭III), and the first two verses use the same melodies. Because of this, the second verse retains the A from the first verse, but changes its role from $\hat{5}$ in the old mode to $\hat{1}$ in the new, E becoming $\hat{5}$ in its place. The third verse uses similar melodic material, but emphasizes $\hat{1}$ and $\hat{3}$ (F and A) instead of $\hat{1}$ and $\hat{5}$, which allows it to retain the A as a prominent secondary voice. The primary line rises a step in each verse, from D to E to F, to prolong the primary tone.



Example III.14. Vaughan Williams, "Easter Hymn" from *Three Choral Hymns*, middleground prolongation graph.

In example III.14, boxes indicate the repeated A sections. When A returns in measure 90, Vaughan Williams varies it somewhat and keeps the major inflection of the primary tone. He also extends it and adds a coda (still using "alleluya" as text) that completes the primary line. At first, Vaughan Williams harmonizes 2̂ with A-minor (v), but then with E-major (V in A, or II in D as a Lydian inflection). After 2̂ moves to the alto part in measure 110, the resolution to 1̂ appears above a IV-I plagal cadence. Because the A features prominently in the highest voice during the "alleluya" sections, we can see the lower-voice A in the verses as its continuation in a lower register. The G♯ above 2̂ in measures 108–111 and the B in measures 111–112 are both neighbors to A, which continues as the highest voice at the end of the piece.

In the "Easter Hymn," we were able to use patterns of strophic repetition in the B section, and rounded form in the A sections to interpret the way the structure relates to the overall form. The returning A section not only reestablishes the primary tone as

at the beginning, but since it does not include a complete structure at the beginning, the extension and coda provide the final descent in order to complete the structure. As with this piece, other pieces may have repetitions or other formal features (such as the blocks mentioned earlier) that fill important functions in the prolongational structure, and a Schenkerian analysis should follow patterns that reflect those functions.

III.4. Summary of the Methodology

The first step discussed above, the process of establishing a tonic or pitch class center as a home or goal for a piece, sets up a foundation for determining stability in both the harmonic and melodic dimensions. At the same time, clearly established hierarchies and directionalities in the harmonic and melodic domains can help pinpoint the tonic or pitch class center. Holst and Vaughan Williams still based their harmony on triads, but with some incorporation of a number of other kinds of chords and chord progressions not often found in tonal music, and so one must determine a harmonic hierarchy for each piece, which may be similar to, or very different from, that found in tonal music. They also based their melodic lines on some of the same principles as tonal music, which means that one can establish melodic stability using some of the same principles, but interval patterns in diatonic modes and non-diatonic collections may require adjustments to the expected linear structures. Formal patterns also govern relationships at deeper levels of structure, and one must take into consideration the relationship between the form and the prolongational structure.

Based on the variety of research discussed in III.1, the methodology I have established will maintain consistency with conventional Schenkerian analysis, while

providing for the modal structures and other pitch vocabularies used by Holst and Vaughan Williams. As one can see in the examples, the graphing technique will retain most of the notations, symbols, and patterns of Schenker's analyses, but as Kofi Agawu points out, graphs can also benefit from some individuality and artistic interpretation that may prevent absolute consistency (1989, 290–2). The established criteria for determining stability and the predicted background and middleground patterns, yield an analytical technique based on Schenker's own method, but with enough flexibility that with appropriate adjustments one could potentially use it to determine the structure of a variety of non-tonal centric styles.

CHAPTER IV

VAUGHAN WILLIAMS'S *BENEDICITE*

Vaughan Williams wrote the *Benedicite* in 1929 for the 1930 Leith Hill Music Festival, which was to celebrate its 25th anniversary that year. Along with it, he wrote the *Three Choral Hymns*, his *Hundredth Psalm*, and three songs on poems by Frances Farrer, each piece being for one of the choral divisions at the festival (Kennedy 1971, 206; U. Vaughan Williams 1964, 181). The bulk of the text can be found in the *Book of Common Prayer*, as a canticle that can be sung at morning prayer, filling the same function as the *Te deum* (Church of England [1662] 2011).[29] Into the middle of the *Benedicite* text, Vaughan Williams inserted three stanzas from a hymn text by seventeenth-century religious poet John Austin. By 1929, Vaughan Williams probably would have "recovered" from his earlier atheism (U. Vaughan Williams 1972–3, 85), but one might still wonder why he would choose to set a sacred text for the festival when there was no immediate reason to do so. Vaughan Williams may have had personal reasons for doing so that he never revealed,[30] but he was probably also motivated by pragmatic concerns, since sacred music could have been used by the church choirs for liturgical occasions as well as at the festival. To do so would be consistent with the perspective put forth in chapter I that he maintained an interest in writing music for the people of his nation, which would include music for use in local churches.

29. It comes from an apocryphal text known as the "Canticle of the Three Children," placed after Daniel 3:23 when included in the Bible (Caldwell and Dyer 2011).

30. Ursula Vaughan Williams notes that the composer began writing the *Benedicite* after reading *Conquest of Mexico*, by William Prescott, but no direct connection between the two has been identified (1964, 171–2).

In writing any type of choral music, it was apparent that Vaughan Williams was acutely aware of the relationship between the music and the text, and how the choir and audience understood their combined meaning.[31] Therefore, in order to better understand the relationship between text and musical organization in the *Benedicite*, this chapter will first undertake an examination of the text itself and how it relates to the general form of the piece. Since one of my intentions involves examining Vaughan Williams's prolongational structures and their relationship to nineteenth-century tonality, I will then follow the methodology set forth in chapter III by examining the tonic areas of the piece, its harmonic language, and its melodic structure. I will also examine how the prolongational structure correlates with the formal layout of the piece, and look at how well they fit predictions based on the formal patterns discussed in section III.3.4. In addition to providing information about Vaughan Williams's compositional technique, this chapter will compare the observations made in the structural analysis and the text analysis, which will show some of the ways in which Vaughan Williams conveyed Christian spiritual meaning in the piece through his musical setting.

IV.1. Analysis of the Text and Formal Design

Byron Adams did not mention the *Benedicite* when referring to Vaughan Williams's willingness to add to or alter a text, but his alterations of it certainly fit with other pieces that Adams did discuss (1996, 100). Vaughan Williams used the entire canticle except for three lines at the end that he must have deemed unnecessary. The

31. Ursula Vaughan Williams observed that the composer would read the words to the choir before rehearsing a choral work in order to help the choir members "understand the mood and quality of the poem" before engaging in the music (1972–3, 88).

first of these omitted lines refers to specific individuals by name, and the second and third do not follow the same word patterns as the rest of the canticle.[32] He also left out some of the redundant phrases and made a few other minor changes to improve the flow of the text. Vaughan Williams inserts a break in the middle that is not present in the original, but the break corresponds with a natural thematic change in the elements described: the switch from celestial elements to terrestrial. In addition, he adds repeats of important phrases at key points in the text's form. At the end of the first half, he adds a refrain of the "O all ye works" phrase, and at the end of the second half he reuses the "O let the Earth" line for a second time. At the end of the piece (after the John Austin insert), Vaughan Williams adds a refrain of the three most significant phrases from earlier in the piece. The first two elements in the refrain– "works," and "powers"– both generalize and encompass other elements mentioned in the text, and are emphasized in the text by the designation "*all* ye" (my emphasis). The third refrain element is the "Earth," which also encompasses all of the elements mentioned in the second half of the canticle. The resulting text as Vaughan Williams set it follows:

> O all ye Works of the Lord, bless ye the Lord: praise him, and magnify him for ever.
> O ye Angels of the Lord, bless ye the Lord: praise him, and magnify him for ever.
> O ye Heavens, bless ye the Lord:
> O ye Waters ~~that be above the Firmament~~, bless ye the Lord:

32. The three lines are: "O Ananias, Azarias, and Misael, bless ye the Lord: praise him, and magnify him for ever", "Glory be to the Father, and to the Son: and to the Holy Ghost", and "As it was in the beginning, is now, and ever shall be: world without end. Amen." (Church of England [1662] 2011). It is possible that Vaughan Williams removed the second line because of the more explicit Christian reference to the Trinity, but this would not explain his omission of the last line, and the Austin poem contains references to the Trinity that he did include. These three lines have also been omitted in some editions of the *Book of Common Prayer*, so it is also possible that Vaughan Williams either had such an edition or was at least aware of the possibility of their omission.

O all ye Powers of the Lord, bless ye the Lord: praise him, and magnify him for ever.

O ye Sun and Moon, bless ye the Lord:
O ye Stars of Heaven, bless ye the Lord:
O ye Showers and Dew, bless ye the Lord:
O ye Winds of God,
Fire and Heat, bless ye the Lord:
O ye Winter and Summer,
O ye Dews and Frosts, bless ye the Lord:
O ye Frost and Cold,
O ye Ice and Snow, bless ye the Lord:
Nights and Days,
Light and Darkness,
Lightnings and Clouds, bless ye the Lord.
O all ye Works of the Lord, bless ye the Lord: praise him, and magnify him for ever.

O let the Earth bless the Lord: yea, let it praise him, and magnify him for ever.
O all ye Green Things upon the Earth, bless ye the Lord: praise him, and magnify him for ever.
O ye Mountains, O ye Hills,
O ye Wells, bless ye the Lord: praise him, and magnify him for ever.[33]
O ye Seas, O ye Floods,
and all that move in the Waters;
O all ye Fowls of the Air,
O all ye Beasts and Cattle, bless ye the Lord: praise him, and magnify him for ever.
O ye Children of Men, bless ye the Lord:
O let Israel bless the Lord:
O ye Priests, bless ye the Lord: praise him, and magnify him for ever.
O ye Servants of the Lord, bless ye the Lord:
O ye Spirits and Souls of the Righteous,
O ye holy and humble Men of heart,
O let the Earth bless the Lord: yea, let it praise him, and magnify him for ever.

[Austin poem insert– see pp. 143–4]

33. Vaughan Williams switched the order of this and the previous line. He may have done so because of the sound similarity between "Hills" and "Wells." He set these in imitation between men and women and probably wanted the two similarly sounding words closer together. "Hills" can also be separated from "Mountains," which cannot be done with the previous line, and which Vaughan Williams needed to do for his imitative setting.

Bless ye the Lord: praise him, and magnify him for ever.

O all ye Works of the Lord, bless ye the Lord: praise him, and magnify him for ever.
O all ye Powers of the Lord, bless ye the Lord: praise him, and magnify him for ever.
O let the Earth bless the Lord: yea, let it praise him, and magnify him for ever.

The cuts that Vaughan Williams made help to reduce unnecessary monotony in the canticle, but it still contains many repetitions, and so the insertion of the poem by John Austin offers some reprieve from that repetition. Vaughan Williams only included three stanzas from the original, but he only needed a few stanzas to balance the *Benedicite*, and many of the omitted stanzas contain sentiments similar to those of the canticle: elements of nature in the praise of God. Here is the complete poem (the stanzas used by Vaughan Williams are italicized):

Hark, my soul, how every thing
Strives to serve our bounteous King;
Each a double tribute pays;
Sings its part, and then obeys.

Nature's sweet and chiefest choir,
Him with chearful notes admire;
Chanting every day their lauds;
While the grove their song applauds.

Though their Voices lower be,
Streams have too their melody;
Night and Day they warbling run,
Never pause, but still sing on.

All the flowers that gild the Spring,
Hither their still music bring;
If Heaven bless them, thankful they
Smell more sweet, and look more gay.

Only we can scarce afford
This short office to our Lord;
We, on whom his bounty flows,
All things gives, and nothing owes.

Wake for shame, my sluggish heart,
Wake, and gladly sing thy part:
Learn of birds, and springs, and Flowers,
How to use thy nobler powers.

Call whole nature to thy aid,
Since 'twas He whole nature made;
Join in one eternal song,
Who to one God all belong.

Live for ever glorious Lord!
Live by all thy works adored;
One in Three and Three in One,
Thrice we bow to thee alone.

The poem also differs in perspective from the canticle. While much of the poem talks about the ways aspects of nature praise God, the opening phrase, "Hark, my soul," introduces a reflective, first-person tone in the poem that is absent from the *Benedicite* itself. This inwardness reaches its zenith in the sixth stanza and continues in the seventh (the second stanza that Vaughan Williams included), but the focus shifts and invitation is extended to join with the rest of nature in the act of singing praise. The last stanza then further emphasizes this transition, where the active pronoun becomes "we," rather than "it" or "they." The last stanza of the poem and the refrain of the canticle thus allow the individual to join with the rest of the universe in singing praises.

As one would expect, considering the modifications Vaughan Williams made, the divisions in the musical form align closely with the formal divisions in the text. The section that includes the first half of the *Benedicite* canticle constitutes the A section,

and is set in a consistently energetic tempo throughout. The second half of the canticle uses a slow tempo throughout and comprises the B section. The Austin poem also has a consistent tempo– this time moderate– and forms its own section (C), although it elides with the refrain at the end of the piece, which brings back the character and themes from the opening. Figure IV.1 shows the formal divisions of the piece, along with indicators for the main melodic themes, the text that begins each formal section, and the section's mode.

As one can see in the table in figure IV.1, the A section divides into three main subsections, labeled a, b, and c. The first part contains the divine elements: the Lord's "works," "angels," "heavens," "waters" (Vaughan Williams leaves out "above the firmament"), and "powers". Some text painting appears in this section, including Vaughan Williams's use of the women's voices on "angels" in measure 21 and long, melismatic, and interwoven melodic lines with "for ever," which begin in the chorus in measure 38, but appear throughout both the A and A' sections. The second part includes elements associated with the natural sky (the sun, stars, showers, wind, etc.), and contains some of the most direct musical imagery, such as eighth-note flurries on "showers," and "winds" in measures 58 and 61, and a shocking, arpeggiated descent on "lightnings, and clouds" in measure 78. In A.c, the third part, Vaughan Williams uses theme *v* from the opening only briefly with the returning text, and then introduces theme *y* on the words "Bless ye the Lord."

The solo voice enters in the B section, which seems to correlate with the appearance of people in the list of elements praising the Lord. This section subdivides according to text phrases (especially the divide in the middle between the non-human

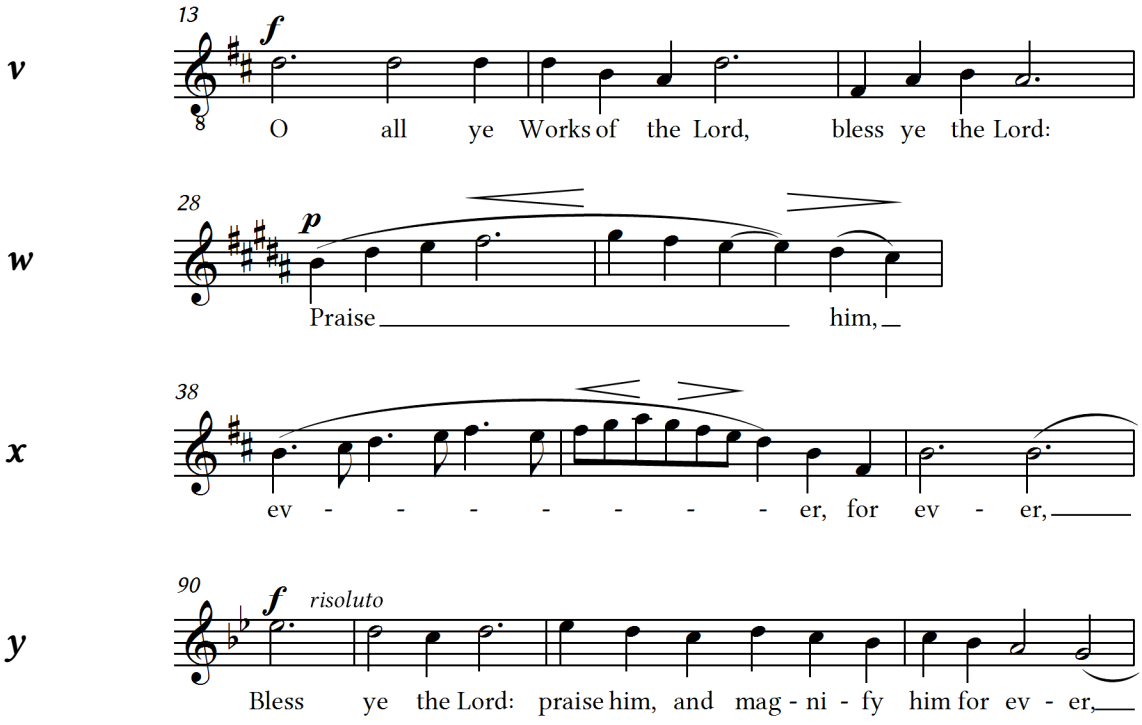
Measure	Sections		Theme	Text	Mode*
1	A	a	*u*	(instrumental)	B-Aeolian
13 **A**			*v*	"O all ye Works of the Lord"	D-Ionian
28			*w*, *v*	"Praise him"	B-Ionian
				"O ye Heavens" (Men)	
38			*x*	"for ever"	B-Aeolian
44 **B**			*x*, *u*	(inst)	
52		b	various	"O ye Sun and Moon"	F♯-Aeolian
58				"O ye Showers and Dew"	C♯-Aeolian
65 **C**				"O ye Winter and Summer"	D-Aeolian/Dorian
70				"O ye Frost and Cold"	F-Aeolian/Dorian
73				"Nights, and Days"	(Cm-Ab-C-Bbm-Am-A$^{\sharp 4}$)
80		c (a')	*x*′	(inst)	Bb-mixed
84 **D**			*v*′	"O all ye Works of the Lord"	
90			*y*, *x*	"Bless ye the Lord"	G-Aeolian
111					Bb-mixed
114 **E**			*x*	"Praise him"	D-Ionian
134 **F**	B	d	*w*′, *y*′	"O let the Earth"	G-Aeolian
158 **G**				"O ye Seas"	
177 **H**			*v*″	"O ye Children of Men" (m. 179)	D-Mixolydian (C in bass)
199 **J**			*x*″	"O ye Spirits and souls" (m. 202)	A-mixed
223 **K-L**	C	e	*z*	"Hark, my soul" - poem v. 1	D-Aeolian
252 **M**				"Call whole nature" - poem v. 2	
276 **O**				"Live for ever" - poem v.3	
293 **P**				"Thrice we bow" (part of v. 3)	B-Aeolian
297	A'	f	*y*, *x*	"Bless ye the Lord" - reprise	
303					E-Aeolian
317 **Q**		g	*v*	"O all ye Works" - reprise	B-Aeolian
331 **R**				"praise him"	D-Ionian

*Local chord progressions appear in parentheses

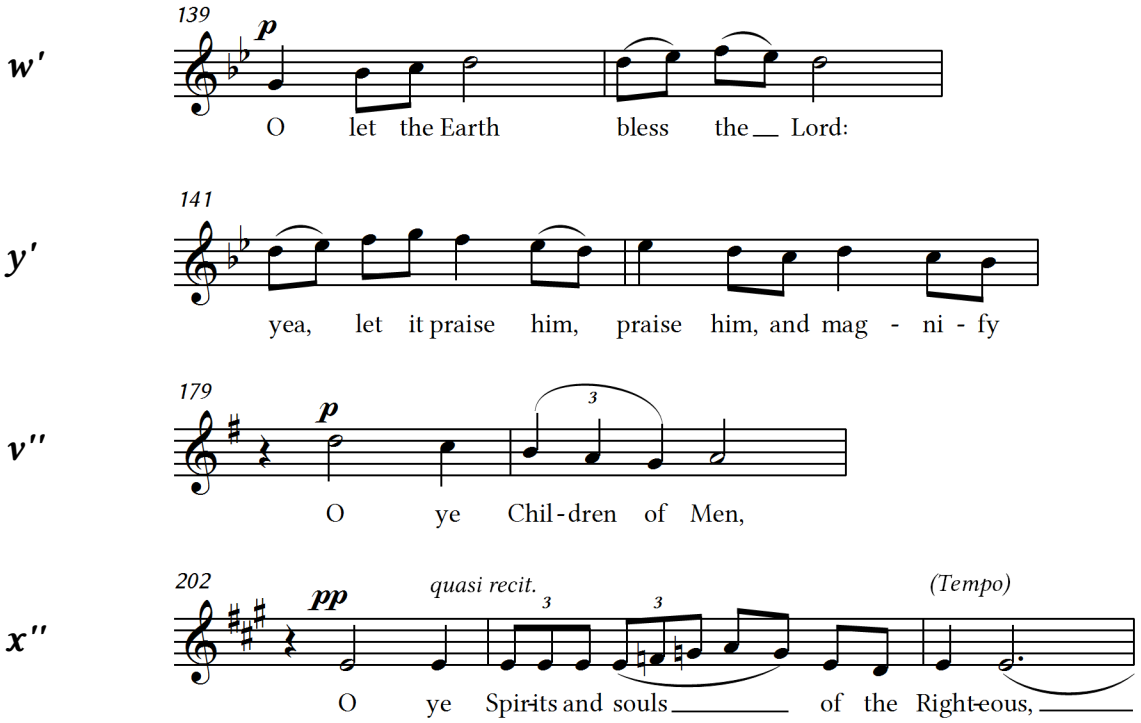
Figure IV.1. Form table for Vaughan Williams's *Benedicite*. Inverted letters are rehearsal marks.

and the human elements), but the character stays consistent throughout. The melodic themes derive from those in the A section, as one can see in example IV.1. The solo enters with a variant of theme *w* from measure 28 at a slow tempo, and after rising to a higher register it descends using theme *y* from measures 92–93. Later in the section,

Themes from Section A



Themes from Section B



Example IV.1. Vaughan Williams, *Benedicite*, themes from the A and B sections.

Vaughan Williams uses melodic ideas based on themes *v* and *x*, but the resemblance is slightly less strong than the earlier themes.

Vaughan Williams sets the poem in section C in a strophic manner, but with significant variations between each verse. The soloist sings the melody in the first verse, while the chorus embellishes it between the phrases. In the second verse, the chorus takes the melody and the soloist provides the inter-phrase embellishments. For the third verse, Vaughan Williams leaves the soloist out entirely and only uses the chorus, which corresponds with the pronoun "we" in the last line. Each verse also contains some harmonic variations that will be discussed later.

At the conclusion of the third verse of the poem, the soloist enters with "Bless ye the Lord," using theme *y* as in the A.c section. This introduces a return of melodic themes from the opening, as well as its tempo and character, which is why I've labeled it A'. The main melodic themes (*y* and *v*) enter in reverse order, enabling Vaughan Williams to round the piece off in a palindromic form. Vaughan Williams keeps the last section much shorter than previous sections in order to maintain energy until the end of the piece.

IV.2. Tonic Areas

Vaughan Williams uses diatonic modes throughout the composition, and most passages use either Ionian or Aeolian. In order to establish a structure for the piece, however, determining the mode is secondary to determining the tonic. The opening and concluding tonics for the composition will govern its background structure, and one must relate the local tonics throughout the piece to them in order to understand the

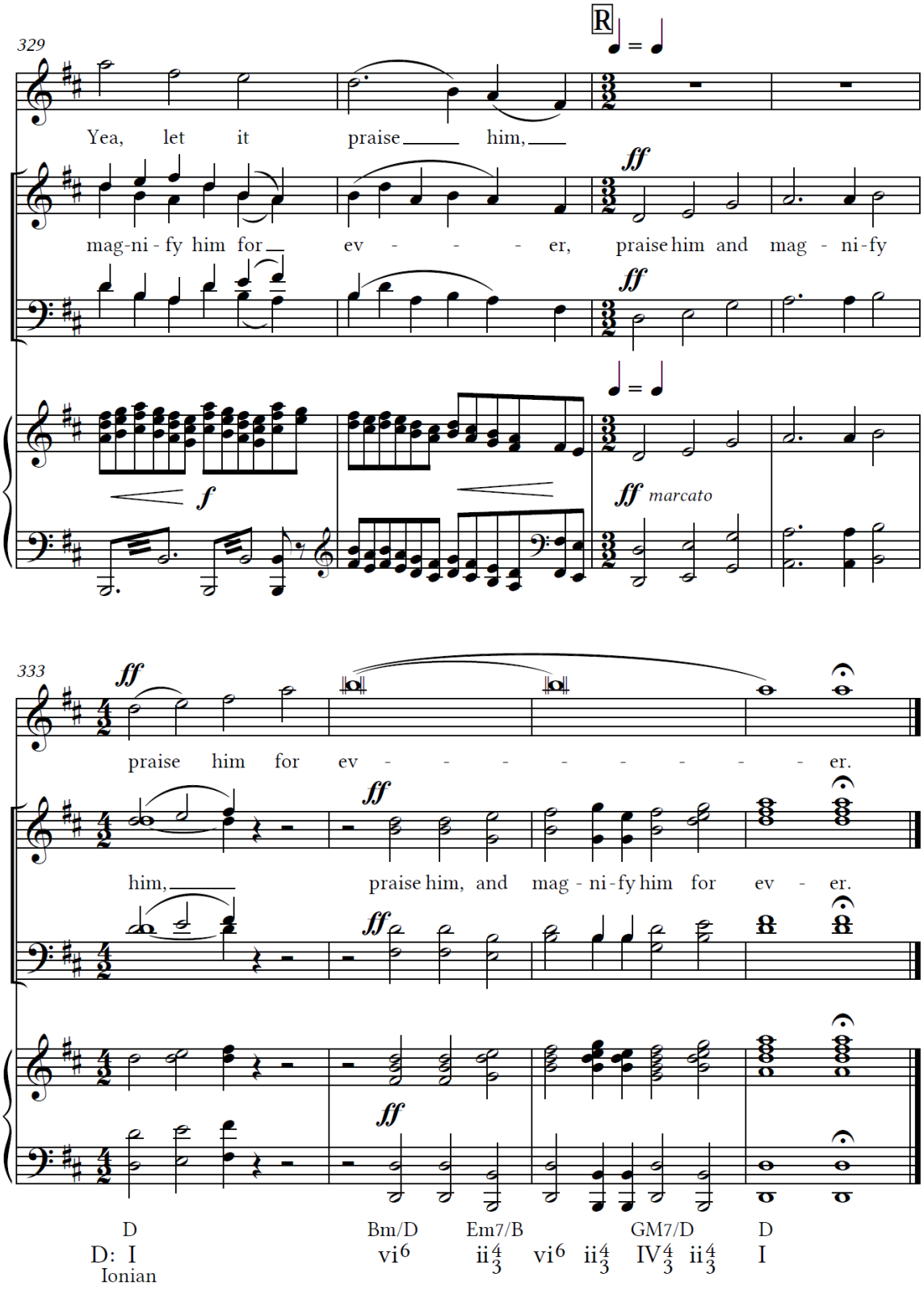
path the piece takes to get from beginning to end. Since the piece is mostly diatonic and contains a significant amount of polyphony, many sections emphasize the tonic through metrical accent, repetition, and melodic extremes– including the beginning and ending of melodic lines and registral high and low points– but seldom through harmonic means. The behavior of tonicizers sometimes emphasizes one pitch over another as tonic. When one can narrow the mode down to either Ionian or Aeolian, one of the tonicizers– $\hat{4}$ in Ionian and $\hat{6}$ in Aeolian– would be treated similarly in both modes, but the other tonicizer– $\hat{7}$ in Ionian and $\hat{2}$ in Aeolian– would tend to ascend in Ionian and descend in Aeolian. In this piece, however, Vaughan Williams uses tonicizers mostly in melodic contexts that are not part of any particular harmonic movement.

Vaughan Williams's use of rounded forms often means that the same tonic will appear both at the beginning and end of a piece, and so the background voice leading structure will often be monotonal. The opening of the *Benedicite* contains elements that could emphasize either B-Aeolian or D-Ionian, and so the piece begins with some ambiguity as to which pitch is the actual tonic. Initially, B seems to receive more emphasis with occasional B-major triads, and an F♯ bass pedal in measures 7–11 that would function as the dominant. The prominence of D and A in the choral theme (theme *v* in example IV.1) switches the emphasis to D as the tonic, but the phrase cadences back on B in measure 18. B remains tonic through the key signature change in measure 28, and continues to alternate with D until the end of the A.a section. Most of the cadences throughout the first 45 measures end on B, and the F♯ pedal returns in measures 48–50, so B is the more likely candidate for tonic in the first part of the piece.

When text from the opening of the piece returns in measure 297, B-Aeolian once again appears to be the tonic, and after a passage in E-Aeolian, B returns in measure 317, this time supported by a tonic bass pedal. However, the soloist reaches A as a melodic peak in measure 328, and then descends to D in measure 330. Under the A, B appears in the bass, but at the end of measure 329 the instrumental bass drops out, leaving the A in the choral bass as the fundamental of the harmony. The chorus then follows the soloist in descending to D in measure 331 (see example IV.2). A final plagal-like cadence in the last three measures continues to use alternations between D and B, but this time the B-minor chords appear above D in the bass, and an E-minor seventh chord appears above B. Of the two tonicizers in this diatonic pitch collection, only G appears after measure 330, and it ultimately resolves up to A in the last measure rather than down to F♯ as one would expect in B-Aeolian. These factors, and the fact that the final chord is also D-major, mean that the piece ends unequivocally in D-Ionian[34] rather than B-Aeolian as the opening of the piece seemed to suggest.

The local tonic areas throughout the interior of the piece also play a significant role in the conflict between B and D as the overarching tonic. As figure IV.1 shows, a series of short tonic areas accompanies the first part of the A.b section, culminating in a chord succession beginning in measure 73 that evades establishing a tonic altogether. Ostinato patterns are one of the strongest factors in establishing each of the tonics in measures 52–72, but contextual emphasis also contributes. The F♯-Aeolian supports B as its dominant, and the C♯-Aeolian area could serves as dominant to F♯ or as ii in B, so it continues to support B more than D. However, the C♯ then leads upwards, as a

34. Since neither C♮ nor C♯ appears from measure 331 forward, the ending contains some modal ambiguity. However, C♯ was included in measure 330, and throughout the preceding section, so there is no reason to assume any mode other than Ionian.



Example IV.2. Vaughan Williams, *Benedicite*, mm. 329-336.

middleground leading tone, to D (which could be Aeolian or Dorian, since neither B♭ nor B♮ appears). The modulation to F♮-Aeolian then supports the D as an alteration of its mediant.

The individual chords in measures 73–79 first seem to prolong C as a harmonic root, and then move down to A (shown in figure IV.1). The next stable arrival comes in measure 80, where B♭ becomes tonic. Since B♭-minor appears in measure 76, it appears that the actual tonic moves from F in measures 70–72 to C in measures 73–75, and then to B♭ with the A in measures 77–79 functioning as another middleground leading tone. The middleground bass line actually moves in the opposite direction, however. Since both C chords have G in the lowest position, the line moves up from F (measure 70) to G (measure 73), then A (measure 77), and finally B♭ (measure 80), which means that one could interpret the B♭ in measure 76 as an upper-neighbor to the A in the line even though it previews the upcoming tonic.

The arrival of B♭ as tonic in measure 80 also introduces a non-diatonic pitch collection that can be derived by raising $\hat{3}$ in an Aeolian mode or lowering $\hat{6}$ and $\hat{7}$ in an Ionian mode. Emphasizing the peculiarity of this scale, a recurring G♭ appears in the bass that almost compromises the strength of B♭ as the tonic. The F-B♭ fourth in the bass and the melodic emphasis of B♭ reinforce it, however, so one can hear the G♭ as $\hat{6}$.

In a relationship parallel to the B-D conflict that spans the entire piece, B♭ gives way to G in measure 90, which initially receives strong emphasis in the bass and melodic lines. Beginning in measure 104 however, the emphasis on G ebbs, and the appearance of A♭ in measure 109 begins a transition back to the opening key signature.

G still remains the focal pitch at melodic high and low points, but a relatively stable B♭-major chord appears on the first beat of measure 111 that temporarily restores B♭ as tonic before the signature change in measure 114.

I mentioned that F♯ and C♯ seem to support B as a large-scale tonic more than D. The other local tonics seem to support D more, however. B♭ could function enharmonically as a leading tone in B, but with D taking precedence in the passage following the B♭, its function seems to support the latter tonic as a lowered submediant. G also functions as subdominant in D, which is a stronger relationship than with B, so even though B seems to be more strongly supported at the beginning, by this point in the piece, D has received more secondary support.

The modal ambiguity between B-Aeolian and D-Ionian continues in measures 114–133 as D gets established clearly at first and then yields to B two measures later. In measure 126, A appears in the bass as the first of a series of descending dotted whole notes that, combined with the emphasis of D and A in the melodic parts, seems to support D as tonic. The descent gets broken in measure 130, but ultimately resolves to D both briefly in measure 130, and more significantly at the cadence in measure 133. The soprano part also climaxes on A in measure 131 (significantly, above a Bm^7 chord) and then descends to D a twelfth below it at the cadence. This passage thus strongly establishes D as the tonic for the passage as indicated in figure IV.1, and provides a significant conclusion in Ionian for the first section of the piece.

When the soloist enters in the B section, the sustained notes in the accompaniment and the outline of the solo melody make the G-Aeolian mode very clear, and even when the chorus enters and the accompanimental texture changes, G remains

prominent until the cadence in measure 150, and even continues to appear in significant places after that. Following a series of parallel chords that lead to a cadence on D in measure 158, the soloist again enters with a melodic line that clearly outlines G. In measures 162–169, moving lines obscure the tonic harmonically, but the soloist's melody peaks on a high G in measure 166, then makes descent and ascent motions that reach G at both high and low extremes, and finally cadences on G at the end of the melodic line.

After the soloist's cadence, the chorus moves towards a cadence on D in measure 172, but when the chorus reaches the new would-be tonic, the bass descends to C. C continues as a bass pedal through measure 176, with D-major chords appearing regularly above it. Measures 177–188 contain a thinly accompanied passage that repeats the D/C chord every few measures and seems to prolong D as a tonic even though the key signature only includes one sharp (D-Mixolydian). The choral parts gradually become more independent in measures 188–198, but C again becomes a bass pedal in measure 191, descending by step to reach A in measure 199. We can assume therefore that even though D/C is a less-stable harmony, it nevertheless prolongs D as a tonic pitch. The movement from G to D in these passages functions similarly to Vaughan Williams's use of G in the previous section. Since G is the subdominant of D, it supports it as a secondary tonic area.

The section in measures 199–222 (analyzed as "A-mixed" in figure IV.1) actually contains one of the most stable tonic areas in the whole piece even though fluctuations in the actual mode appear frequently in the passage. One of the reasons for this stability is the repeated use of I-♭VII-I and I-v-I harmonic progressions to establish the

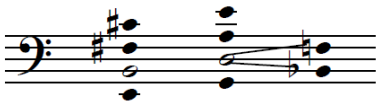
tonic. The stability of the tonic A in this passage contributes greatly to the overarching tonic of D because it functions as a large-scale dominant.

In the C section, two of the three verses remain entirely in D-Aeolian, while the third verse begins in that mode and modulates to B-Aeolian at the last phrase, where it elides with the beginning of the A' section. The first verse actually appears initially to start in F, but the lone accompaniment line descends to D and when the choir enters it is on a D-minor chord. Throughout the verses, D and A repeat frequently and receive substantial contextual emphasis in both the melody and bass parts, so there is no doubt as to the strength of D as the tonic in this section. The modulation at the end of the third verse begins in measure 291 (before the change of key signature), but G appears with the would-be B-minor chords until the middle of measure 293, so the new tonic does not get fully established until then.

The E-Aeolian section in measures 303–316 (the last tonic area to be discussed in detail) continues to use theme *y*, but the tonal center is somewhat ambiguous until a few measures into the passage, where the melody and bass begin to emphasize the E more than other pitches. The beginnings and ends of melodic lines continue to emphasize E as the tonic until the measure 317, where the modulation returning to B-Aeolian takes place.

Example IV.3 shows how the many tonics presented in the *Benedicite* relate to the two conflicting primary tonics at the opening and closing of the piece. We can show most of them as relating by fifth to either D or B, thus the F♯ and C♯ from early in the piece support B as fifths above it, and E supports it as the fifth below. A and G both relate to D by fifth, and E forms a fifth above the A, similar to how the C♯ relates to B.

While B has support from as many fifth-related tonics as D, the F♯ and C♯ passages are very short and less stable than those supporting D. In contrast, G and A both appear in longer and more stable passages. The section in E could support either tonic, and is one of the connecting links between the two. B♭ and F do not relate to either B or D by fifth, but as I observed earlier, B♭ could only support B as a leading tone, and since it moves to D instead, the latter relationship is stronger. F also forms a fifth with B♭, relates to D by a somewhat-stable third, and forms an unstable tritone relationship with B. From this we can see that even though B gets established more strongly at the beginning and for part of the end, the secondary tonic areas support D more strongly, which helps validate its use as a concluding and background tonic for the upcoming discussion of the prolongational structure.



Example IV.3. Array of tonics for Vaughan Williams's *Benedicite*.

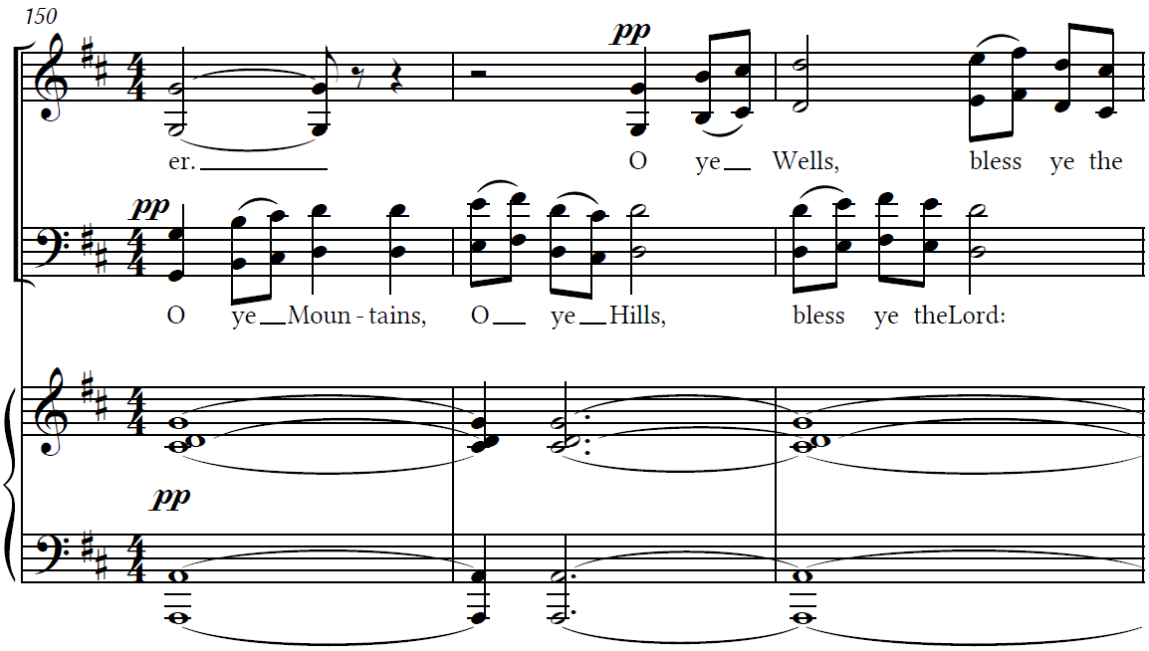
IV.3. Harmonic Structure

The texture of *Benedicite* includes considerable use of polyphony and independent melodic lines, which means that surface harmonies may be short and fleeting, and are often controlled by little more than the movement of lines. The mere fact that a harmonic unit is presented as a single verticality may make it more stable than the surrounding harmonies. Shorter, passing harmonies often form part of

middleground harmonic stasis, prolonging a single tonic or harmonic area. On the other hand, some sections of the music contain clear chordal harmony, which may be harmonically static or mobile, depending on the context and structural function. In this section, I will examine the harmonic language of the *Benedicite*, look at some of the harmonic hierarchies, and discuss how those norms and hierarchies affect the background harmonic structure of the piece.

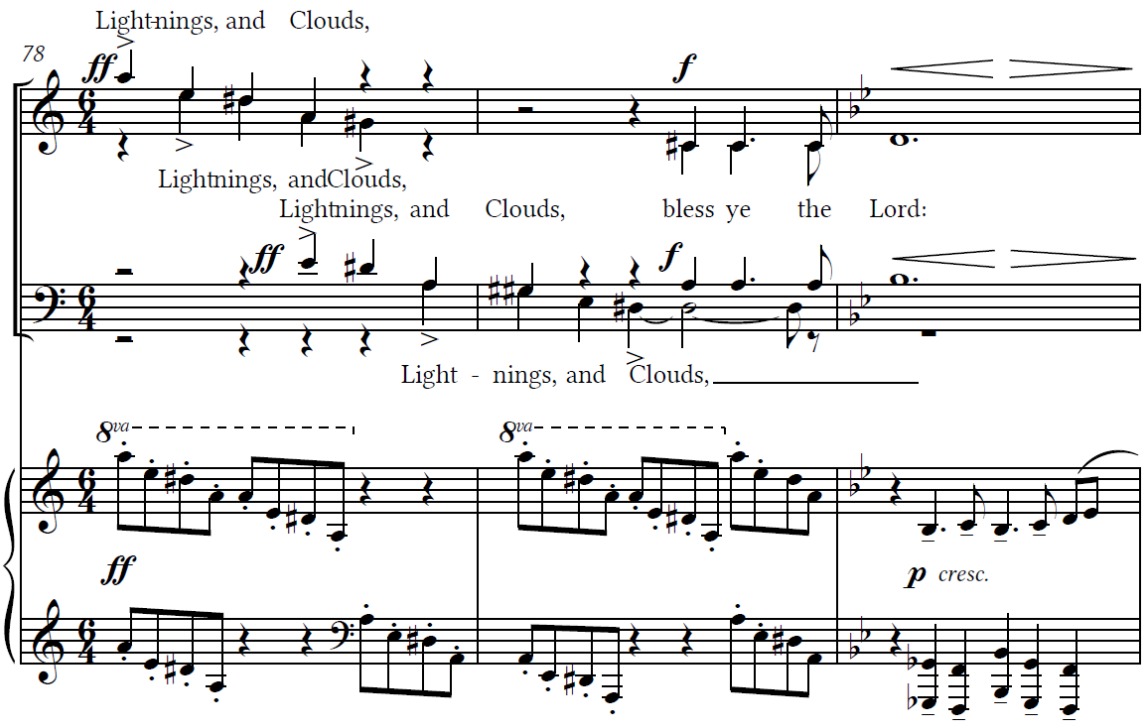
Consistent with Vaughan Williams's harmonic language in general, this piece features triads as the norm for stable harmony, with extended tertian chords and triads with added tones appearing with some frequency as well. In most cases, the extensions are not emphasized or used as significant parts of the prolongational structure, however, and so at the middleground and background levels, most of the structurally significant pitches belong to a triadic sonority.

Vaughan Williams also includes a few other harmonic constructions in the piece, some of which remain part of the structure at the middleground levels. A quartal chord appears as a sustained harmony in measures 150–155 that contrasts against the otherwise-stable G-Aeolian mode (see example IV.4). Here, Vaughan Williams provides the melody in a stable harmonic context first (beginning with a G pedal) and then uses the same melodic ideas above the quartal harmony, which means that the melody would still be understood to prolong the G centricity even though the harmony provides a contrast to it. This conflict resolves in measures 156–158, where A appears in the melody and then moves down to D in the temporary prolongation of D cited earlier (in section IV.2).



Example IV.4. Vaughan Williams, *Benedicite*, mm. 150–152.

A second significant non-triadic harmony appears in measure 78–79 (shown in example IV.5) to emphasize the text idea of "lightning." As I discussed earlier with regard to the tonic areas, this chord functions to connect the C chords in measures 73 and 75 with the B♭ section in measure 80. Rather than making the connection with a triad, however, Vaughan Williams uses what appears to be an A chord with an added ♯4. At first, the chord would be perceived as a minor triad with the fourth added as a series of embellishing neighbor notes because of the A-minor triad preceding it, but in measure 77 the bass sustains the D♯ as part of the chord. C♯ also appears in measure 79, changing the quality of the chord to major. The D♯ in this instance probably only functions for text-painting purposes, since there is no apparent voice leading or structural justification.



Example IV.5. Vaughan Williams, *Benedicite*, mm. 78–80.

As far as hierarchies are concerned, the V chord in D fills its expected function as dominant for the whole piece. One could argue that the B-minor triads feature more prominently, but it is A that ultimately replaces B at the structural close in measures 328-331, as described above and shown in example IV.2. A also appears in a number of other significant places. At the end of the A section, the cadence on D in measure 132 gets preceded by A in the bass part in both measure 131 and measure 132, and I have already mentioned both the significance of A in measure 156 leading to the D in 158, and the section in measures 199–222 with A as tonic. The strophic C section also features significant use of v in alternation with i in D-Aeolian.

The sections in B also often include its dominant as a primary structural support. The dominant pedals in measures 7–11 and 48–50 exemplify this, and F♯-minor chords appear in measures 320–321 that support B near the end of the piece. The F♯ in the bass in measure 321 descends by step to D in measure 322 rather than to B as expected, however, and when it appears again in the bass in measure 327, it is a dissonant chordal seventh. It again moves down by step at the end of the measure, where E becomes the root of a seventh chord that leads to the final root-position appearance of B-minor. The evasion of F♯'s tendency to resolve to B subtly weakens that tonic-dominant relationship, which again contributes to the perception of D as the more stable tonic between the two.

In sections where the dominant fills its expected structural role, like those mentioned above, harmonic hierarchies tend to follow expectations in that the tonic is the most stable harmony, followed by the dominant, followed by other harmonies. Some sections do not contain significant appearances of any particular harmony aside from tonic, in which case contextual criteria and consonant construction (preferring triads over other types of verticalities) would dictate the hierarchy among non-tonic harmonies.

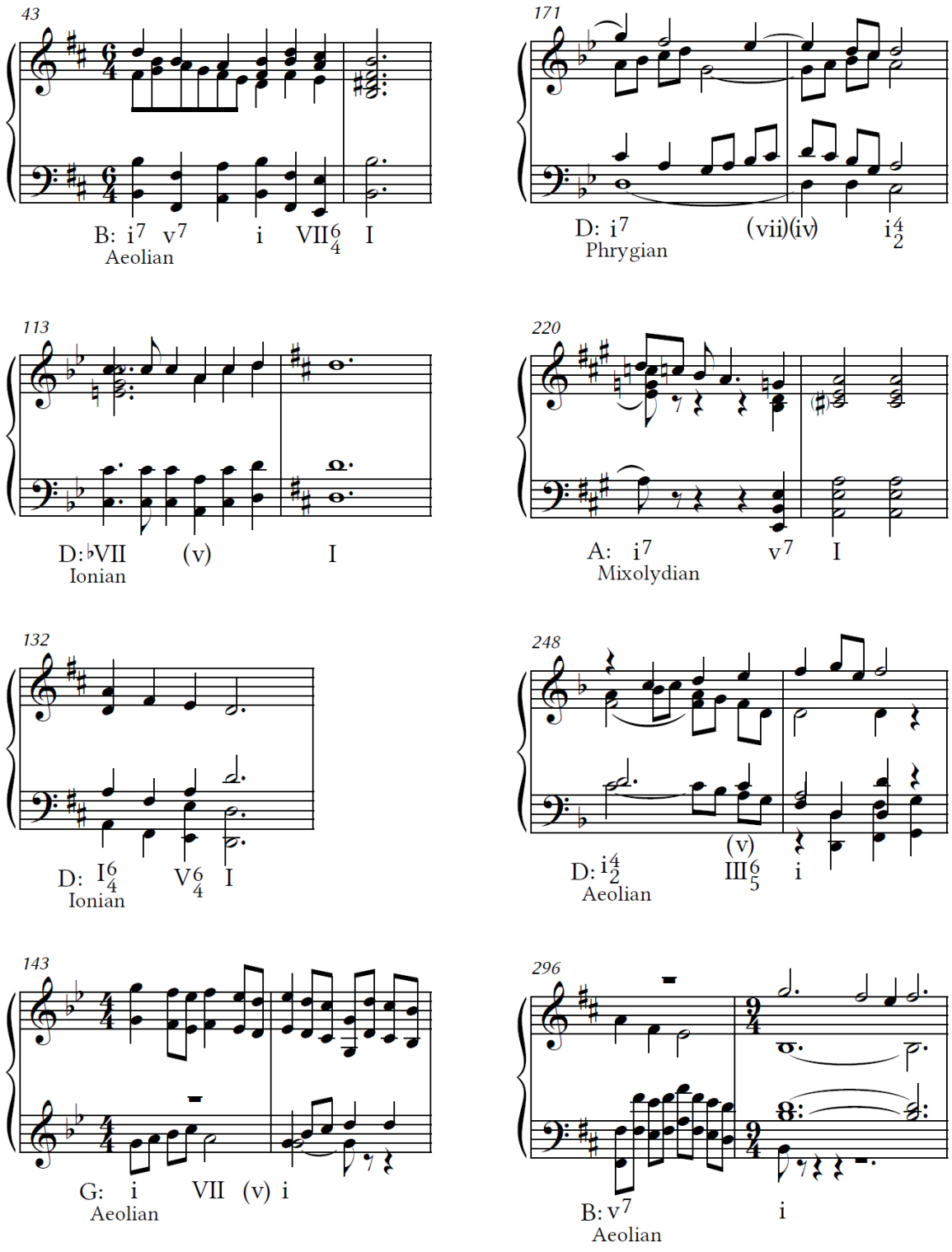
Another important consideration in determining the harmonic structure of the *Benedicite* involves the examination of Vaughan Williams's cadence methods. In some passages, such as those featuring structural use of the dominant chord, he uses cadences with a traditional x-I or x-i design. He forms many cadences only melodically, however, especially where a polyphonic texture prevails. In these passages, cadences can still

help determine the harmonic structure, but not necessarily through specific chord progressions.

Example IV.6 contains some of the more significant cadences from throughout the piece in reduced scoring. The first two, measures 43–44 and 113–114, show examples of v and (♭)VII as cadence preparers in B and D, respectively. In measure 43, Vaughan Williams sets the VII chord in second inversion, which gives the cadence a plagal sound. Measure 113 uses $\hat{5}$ only briefly, whereas VII gets sustained as a chord for half of the measure. The cadence in measure 132 has nearly all of the voices in octaves moving to the tonic pitch, and so the melodic dimension governs the cadence primarily. However, in the third chord the choral bass moves up instead of down, providing the root of the a dominant chord,[35] which strengthens the harmonic dimension as well.

The cadences in measures 171–172 and 220–221 both contain overlapping polyphonic lines that obscure the cadence to some degree. The soprano solo melody in the lento section cadences for the first time in measure 144, but the accompaniment starts a descending sequence in measure 143, and the choral parts begin a melodic echo of the soprano's melody in measure 144. Even with the moving lines, however, the melodic cadence of the soprano comes through, and as the analysis in example IV.6 shows, the lines form a dominant harmony right before the soprano arrives on the cadential tonic. The cadence in measures 171–172 is more exceptional because in addition to ending on a second-inversion seventh chord, the melodic parts seem to emphasize ii° or iv over the tonic pedal at the beginning of 172 instead of a dominant. The moving lines and less-stable seventh chord weaken the cadence significantly.

35. To create a complete triad, and for the sake of the Roman numeral analysis, the third of the chord must be implied. Vaughan Williams skillfully avoids using $\hat{7}$ for parts of this passage. The last C♯ to appear before the cadence in measure 132 appears in measure 129 as a passing tone in the alto voice.



Example IV.6. Vaughan Williams, *Benedicite*, selected cadences.

The cadence in measures 220–221 concludes the relatively stable section in A. This section uses dominant harmony extensively, and is one of the only sections other than those in B or D to do so. In the final cadence, as shown in example IV.6, a root position v^7 chord precedes the tonic, making it one of the more conventional cadences as far as root motion and chord construction are concerned. Vaughan Williams still breaks from tradition, however, by using parallel voice leading and preceding the dominant with a minor tonic.

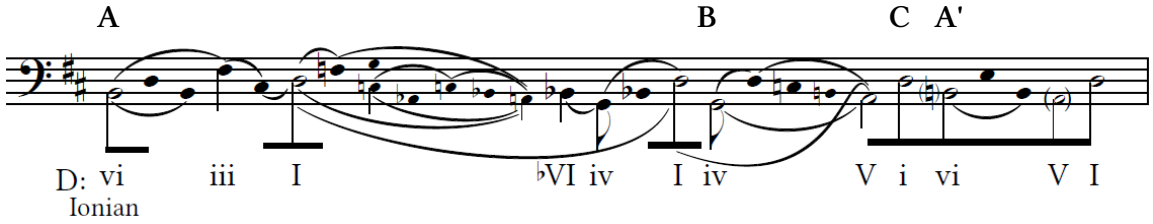
The cadence in measure 248–249 comes from the strophic C section, where one can see the cadence in the inner parts, but with a dovetailed solo line above it that leads to the next phrase. The cadence-preparing harmony contains the dominant chord, but some of the melodic pitches also seem to outline either I or III, depending on how one interprets each pitch. Vaughan Williams uses cadences like this throughout the C section in order to close each phrase of the melody while maintaining melodic motion in the other parts.

The cadence in measures 296–297 shows the dovetailing at the end of the C section, with the soloist entering on theme *y* at the same time as the choral conclusion. Because the melody (unison chorus) descends from E to B, the cadence has a plagal quality similar to that in measures 43–44. The accompaniment in this example clearly outlines the dominant except at the very end of the measure, where the D anticipates the third of the upcoming tonic chord.

Since most of the above cadences either use the dominant harmony or have little harmonic preparation, the harmonic hierarchy for most of the *Benedicite* relies on the tonic-dominant relationship. Some cadences use plagal-like constructions, with

prominent use of $\hat{4}$ and/or subdominant chords, which suggests that subdominant harmonies will have a corresponding structural function in those sections.

By combining the results of our assessment of tonic areas and the harmonic hierarchy, we can determine a preliminary harmonic structure for the whole piece. The graph in example IV.7 includes the roots of each of the tonic areas, plus the roots of chords where tonic is elusive. By beaming the B and D tonic areas, I have shown how they alternate through the piece, with the subtle A that appears in the choral bass part immediately before the structural descent. One can see that the short tonic areas early in the piece prolong B as the tonic until they reach D. The graph shows that the chord progression leading to B♭ provides a stepwise descent from D, with embellishing pitches between the steps. The two significant appearances of G in the middle of the piece provide structural subdominants, the second of which eventually leads to the dominant by leaping up a fifth and then descending by step. That dominant leads back to tonic, although it is the minor tonic from the strophic C section. Finally, the reprise brings back the B from the beginning and then the final move to D as the finishing tonic.



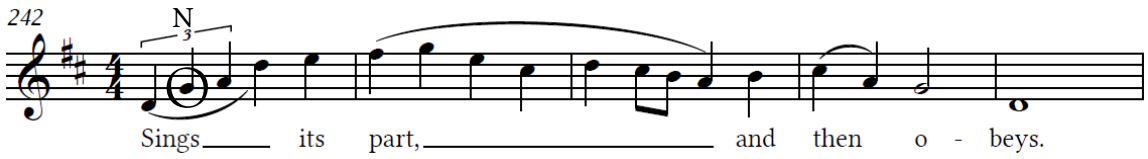
Example IV.7. Vaughan Williams, *Benedicite*, bass graph showing the basic harmonic structure. Reduced noteheads represent individual chords.

Due to the way in which the levels are structured, the complete prolongation graphs will not contain the harmonic structure exactly as it appears here. Nevertheless, this provides a single glance of the harmonic form for the entire piece. It also demonstrates that the harmonic hierarchy for the piece as a whole correlates with the hierarchies seen in surface progressions and cadences: the tonic (or tonic substitute, as is the case with B) is the most stable, followed by dominant, followed by subdominant. Other harmonies either prolong or connect those elements.

IV.4. Melodic Structure

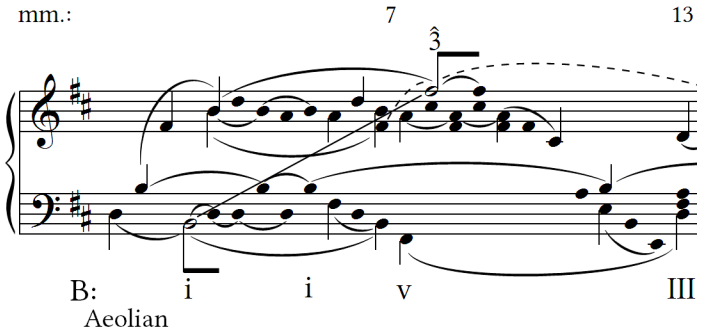
Consistent with the descriptions in chapter 2, the melodies of the *Benedicite* consist primarily of steps and harmonic skips. Some non-harmonic skips appear, and a pattern consisting of adjacent steps and skips (frequently in the same direction) appears in many of the melodies that seems to provide some motivic connection to melodies that otherwise have few similarities. One can see this step-skip pattern in some of the themes shown in example IV.1 (p. 147). In theme *v*, the skips at the beginning of measures 14 and 15 outline the harmonies at those points, but still serve to introduce the step-skip melodic idea. Theme *w* also shows a harmonic skip followed by stepwise motion. The melody from the C section also contains step-skip patterns, and because the harmony changes in each verse, the skips do not always follow or outline the harmony (see example IV.8). Instead, one of the pitches in the pattern often functions as an incomplete neighbor tone.

Because of the function of the steps and skips in the melodies, and the diatonic pitch collections, much of the middleground features arpeggiations of the active



Example IV.8. Vaughan Williams, *Benedicite*, mm. 242–246, soprano only. The circled G is an incomplete neighbor tone.

harmony. Passages that do so tend to be harmonically static at the middleground, prolonging a single harmony and often a single structural pitch even though they are harmonically and melodically very active at the foreground. The instrumental introduction in the first 12 measures is one such passage (see example IV.9),[36] where the B-minor and F♯-minor chords are the only two harmonies prolonged before the entry of the chorus in measure 13. This arpeggiation establishes F♯ as the primary tone for the whole piece; significantly, this pitch functions in both B (as $\hat{5}$) and in D (as $\hat{3}$). Theme *x*, which appears in a number of different places throughout the piece, also reduces to an



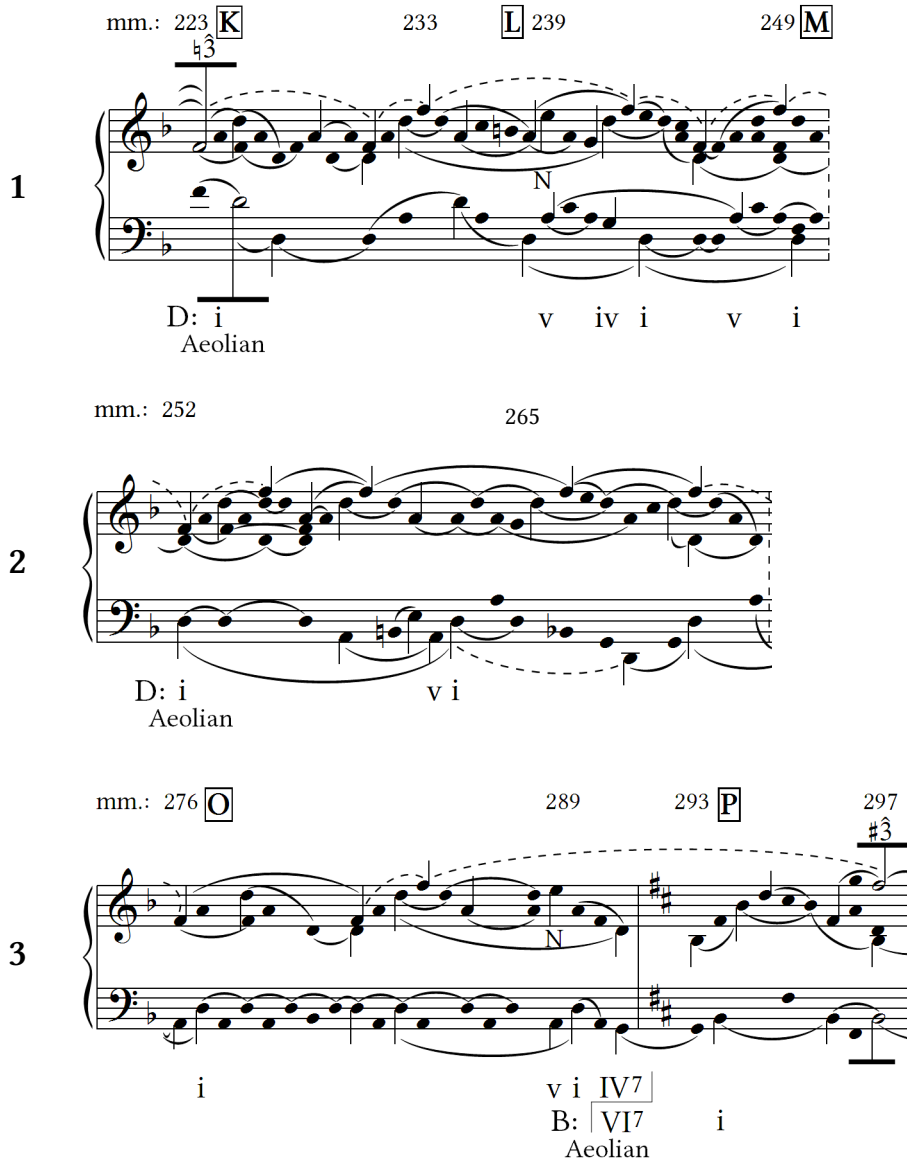
Example IV.9. Vaughan Williams, *Benedicite*, L2 prolongation graph of mm. 1–13.

36. Due to the number of graphical levels used in these analyses, instead of referring to graphs as "foreground," "first middleground," "second middleground," etc., I will simply refer to them by number according to their graphical level. Thus L1 refers to the foreground, L2 to the first middleground, and so forth.

arpeggiation at the middleground level because of the chord tones that the melody emphasizes as it ascends and descends. Vaughan Williams often uses this melodic theme to reinforce the tonic chord, which again translates to harmonic stasis at a deeper level.

All but one phrase of the three verses of Austin's poem prolong the D-Aeolian mode, and one of the primary means of doing so is through middleground skips and arpeggiations within the tonic chord. Example IV.10 shows an L2 graph of the C section, with each verse in a separate system. At this level, the first verse prolongs the tonic (D-minor) triad almost exclusively except for a brief dominant and subdominant in measures 240–242. The second verse also prolongs the tonic throughout, and has only a structural dominant (measure 261), no subdominant. In the third verse, a structural dominant appears in measure 289, with E in the soprano, and then a subdominant in measures 291–292 acts as a pivot in the modulation to B-Aeolian (where it functions as submediant). The last phrase of the verse arpeggiates a B-minor triad, and this time the arpeggiation helps connect to the returning primary tone in measure 297.

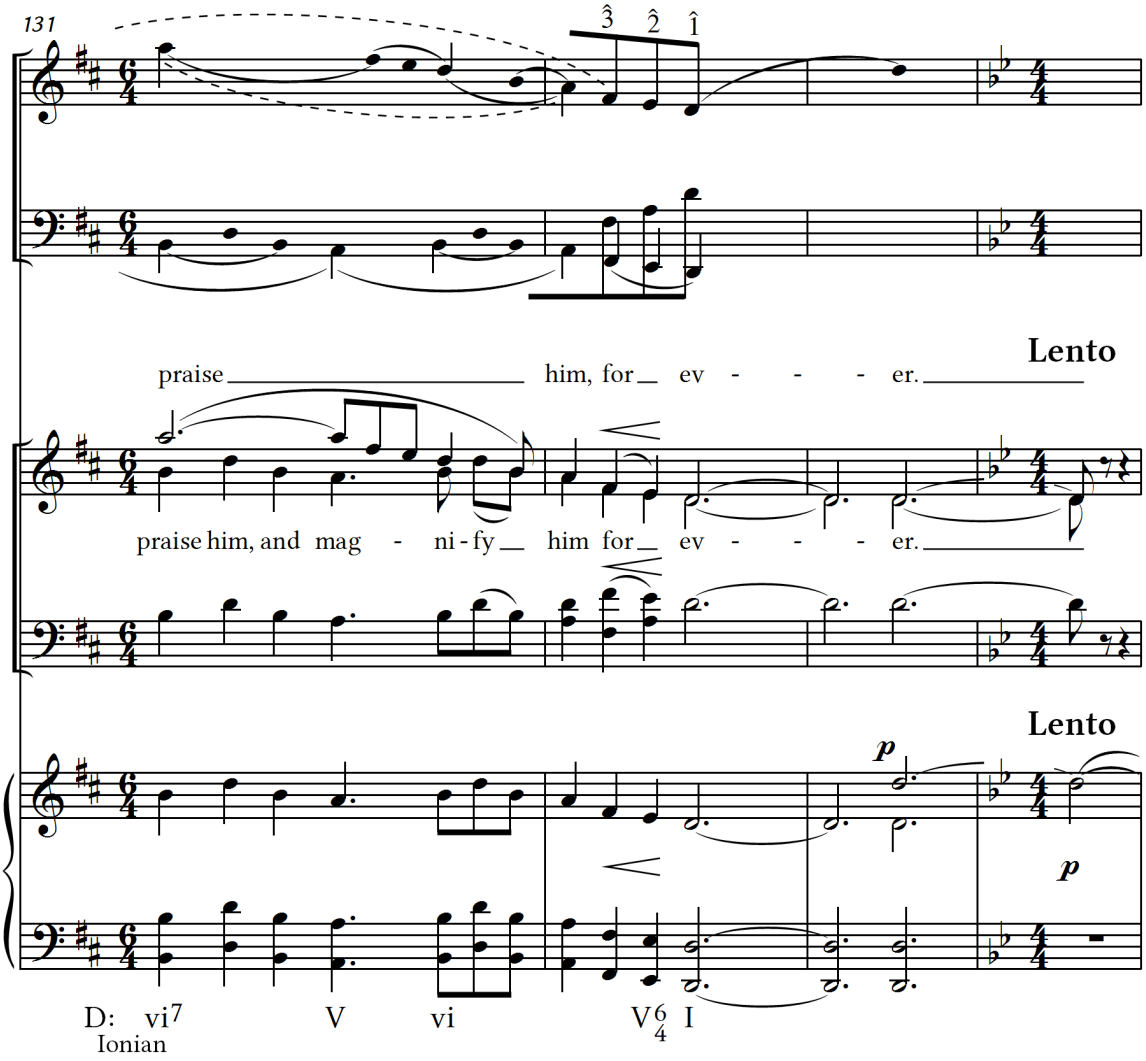
Although they still prolong the primary tone, measures 265–269 contain an arpeggiation that outlines the subdominant. At this point in the foreground, the bass descends by step, but the pitches of the subdominant chord are longer and appear on the strong beats. The harmonies depend on moving lines, but emphasize pitches of both the subdominant and tonic triads. In measure 268, the bass arpeggiates the subdominant without the intervening steps, and has subdominant harmony above it, but since the strongest pitches in both the bass and soprano are both D, it becomes part of the tonic prolongation at the middleground level.



Example IV.10. Vaughan Williams, *Benedicite*, L2 prolongation graph of mm. 223–297.

With arpeggiations being so prevalent, many of the middleground linear progressions appear at cadences and in short time spans. Most of the cadences shown in example IV.6 have some kind of structural descent to them, and for many, the structural descent occurs within the excerpted measures. In measures 131–134 (example

IV.11), the melodic material preceding the cadence prolongs a covering progression, and a descending 3-line comes in as the last three notes of the soprano part. Because of the octave doubling of the melodic line, we rely on the choral bass, and the harmonic characteristics discussed in IV.3 above, to determine the actual bass progression that accompanies the line. Since the cadence concludes the A section– and provides a significant interior cadence on the concluding tonic– the descending line must be

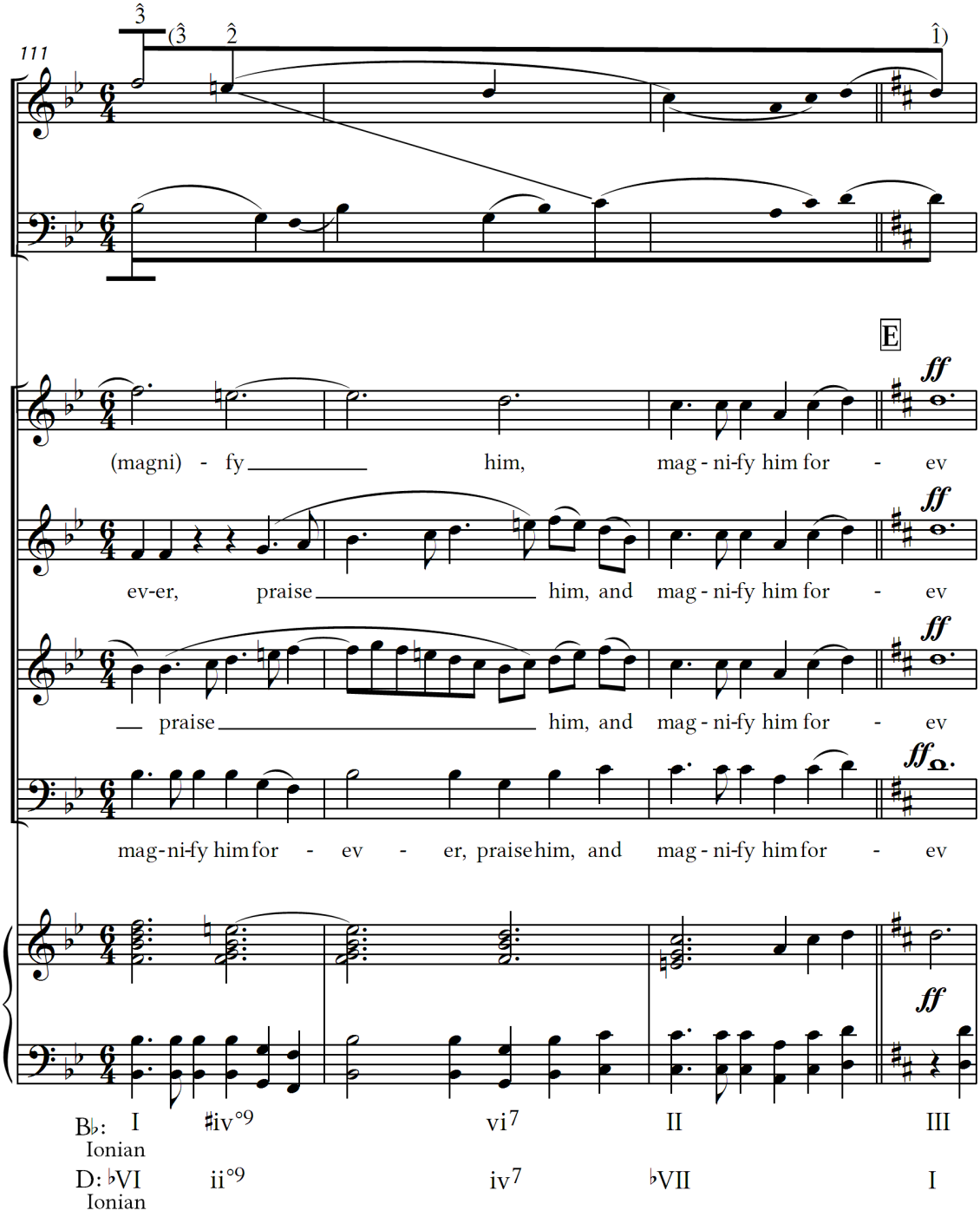


Example IV.11. Vaughan Williams, *Benedicite*, mm. 131–134, with L1 prolongation graph.

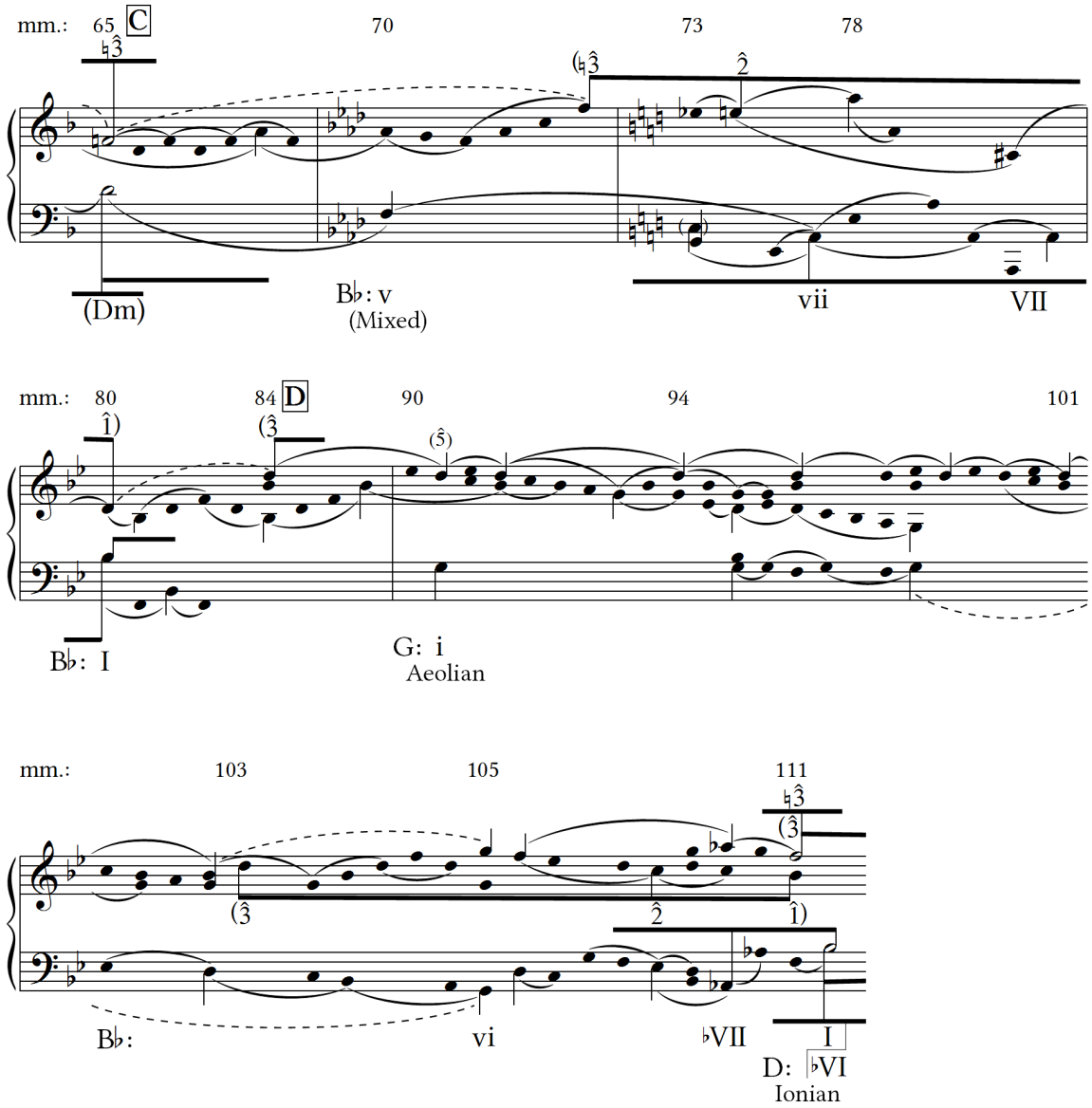
retained into the deeper middleground levels of the analysis as a nested structural descent, even though it only appears as the last three pitches of the melodic line. The cadence in measures 220–222 (also shown in example IV.6) has similar characteristics, except that a motion down to $\hat{7}$ embellishes the motion from $\hat{2}$ (the B on beat 2 of measure 220) to $\hat{1}$.

Another cadential descending line begins in measure 109, but the first part of it only has an embellishing function. The structural part of the descent begins when the stable B♭ chord in measure 111 (♭VI in D, see section IV.2 above) supports the F above it as the primary tone (see example IV.12). To the listener, the E♮ in the second half of measure 111 would seem abrupt and peculiar, but its function becomes clearer after the arrival on D in measure 114, because E functions as ♮$\hat{2}$ in the new mode. From the standpoint of Larson's musical forces, the altered E would have a magnetic tendency to move back up to F. The fact that the line moves down against this tendency means that one is more likely to retain the F as the structural tone, with the descending line prolonging it while providing a transition back to the major tonic. As frequently occurs in tonal music, the descent to C (♭$\hat{7}$ in D) in measures 112–113 is a motion to an inner voice.

Immediately prior to this passage, a single linear motion connects the A.b section with the A section's conclusion (A.c), tying together the structure of the first half of the piece. As shown in example IV.13, a prolongation of ♮$\hat{3}$ in a lower octave begins in the D-Aeolian section in measures 65–69 that rises to the higher register in measure 72 in the F-Aeolian section. The harmonic transition to B♭ contains a prolongation of E, and since the opening of the B♭ section emphasizes D in a lower



Example IV.12. Vaughan Williams, *Benedicite*, mm. 111-114, with L1 prolongation graph.



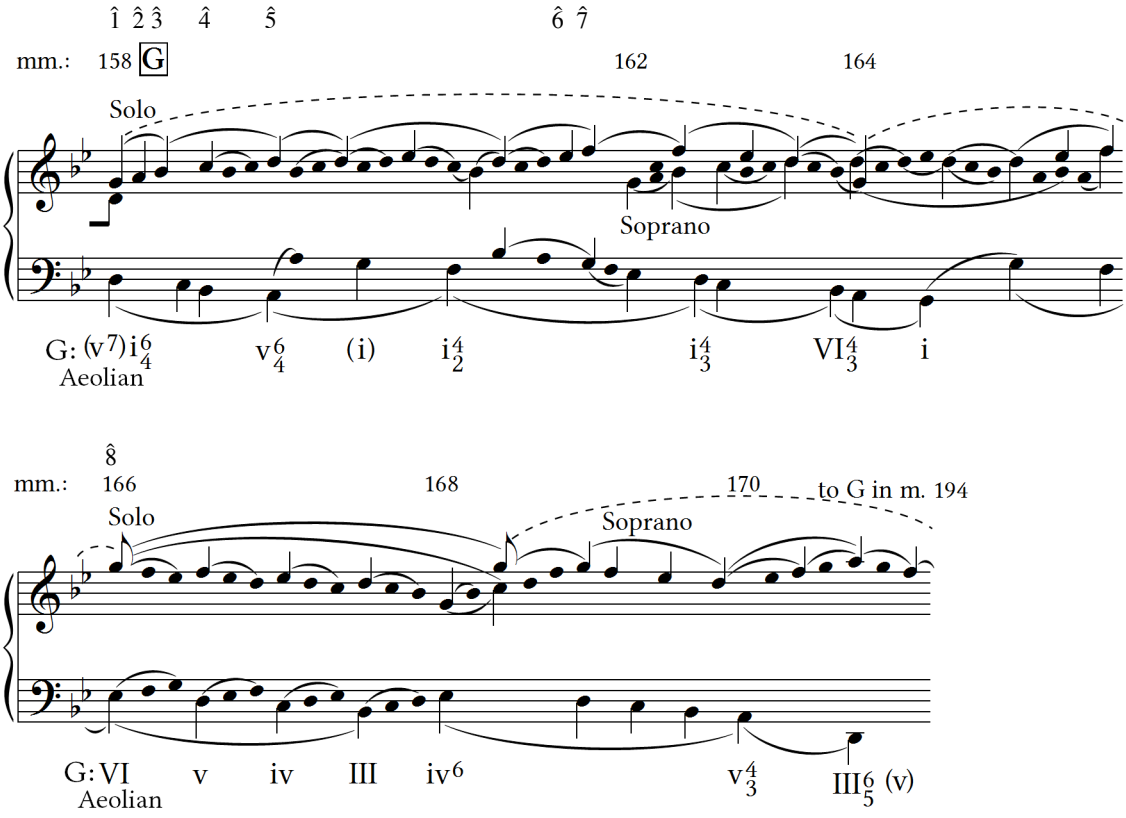
Example IV.13. Vaughan Williams, *Benedicite*, L2 prolongation graph of mm 65–111.

octave and the higher octave D enters again in measure 84, we can hear the E resolve down as ♮4̂ going to 3̂ in B♭. When G becomes tonic in measure 90, D remains the structural tone, now functioning as 5̂. D descends to G locally a number of times in measures 90–104, and with the upper voice's arrival on G in measure 105, the D gets

relegated to an inner voice. However, while the G rises to A♭ and then descends to F in measure 111, D moves down to a well-established C in measures 107–109. Because of the forces of inertia and gravity, we can hear it continue downward to B♭ in measure 111 even though that pitch only appears in the correct register in the accompaniment (it also appears in the tenor an octave lower). The inner-voice C in measure 113 referred to earlier (in example IV.12) becomes part of the same line, bringing the B♭ back up to D in measure 114 in parallel with the bass.

Measures 158–169 contain another collection of interesting non-cadential linear motions. The melody in this passage begins with the soloist singing a simple $\hat{1}$-$\hat{2}$-$\hat{3}$ pattern in G-Aeolian (harmonized by the D that concludes the previous passage). Inertia then carries the melodic line continually upward, and although the rising motion ebbs in measures 163–164, the momentum carries it finally up to G an octave higher in measure 166 (see example IV.14). The bass part that accompanies the ascending line moves down by step, and although the linear contrary motion governs both parts melodically, it necessitates some exceptional harmonic support for the pitches in the upper line. After reaching the registral peak, a sequential melodic pattern, coupled with the same melodic idea in inversion in the bass, leads the line downward by step until it reaches D, at which point the upper part uses harmonic skips to hit G in the lower octave and bounce back up to the high G. The structural line then passes to the choral soprano, which eventually goes down to cadence on D in measure 172 as shown in example IV.6.

This series of rising and falling lines prolongs G at a deeper level through octave couplings and harmonic skips (with a strong presence of F in measure 161–162 and 165

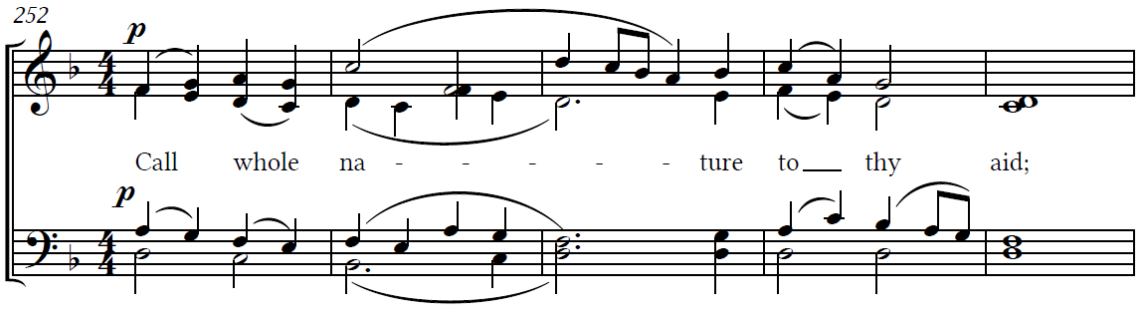


Example IV.14. Vaughan Williams, *Benedicite*, L1 prolongation graph of mm. 158–171.

as a lower neighbor). While G-Aeolian functions harmonically as a subdominant to the home tonic of D, the upper-voice G functions as a long-range upper neighbor to the primary tone. The middleground lines in this passage thus prolong the G as a significant part of a deeper level of the structure.

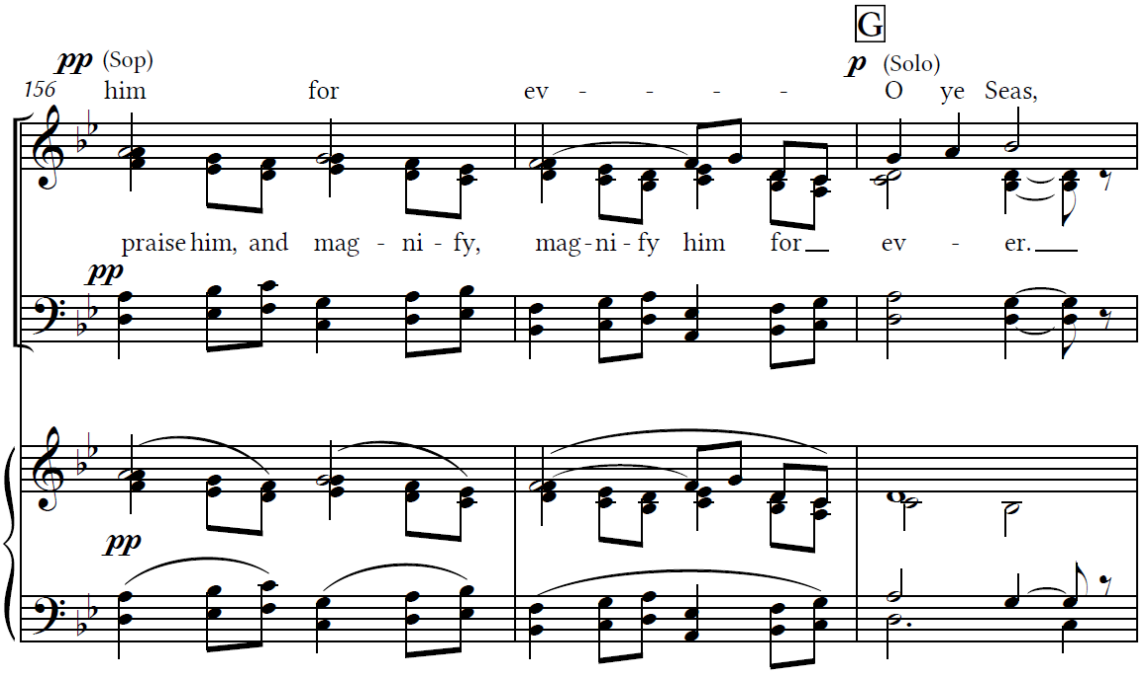
Some of the previous excerpts have already demonstrated the variety of counterpoint types found in the *Benedicite*. One can see Vaughan Williams's use of independent lines at the surface of the music in measures 171–172 in example IV.6, as well as measures 111–114 in example IV.12. On the other hand, parallels of various kinds appear throughout the piece, such as the parallel triads in the accompaniment in

measure 330 (see example IV.2). As example IV.15 shows, both parallels and contrary motion can even be found within the same passages of music. The alto and tenor parts in measures 252–254 move in parallel thirds and maintain some rhythmic independence from both the bass and soprano parts. The soprano starts by moving in contrary motion, but then moves in parallel on the third and fourth beats of measure 252, forming a fifth with the alto and a third (tenth) with the tenor. The soprano also leaps to a note that is dissonant with the bass and harmony in measure 253.



Example IV.15. Vaughan Williams, *Benedicite*, mm. 252–256 (choir parts only).

As anticipated, the middleground also contains examples of both independent and dependent lines. One can see in examples IV.12 and IV.13 that the structural lines in measures 65–114 frequently use contrary motion, and I already described the influence of contrary motion in the ascending line shown in example IV.14. The parallel fifths between the tenor and bass in measures 156–158 (shown in example IV.16) move in contrary motion to parallel thirds in the soprano and alto parts. They also elaborate middleground parallel fifths, demonstrating Vaughan Williams's careful balance in establishing voice relationships at different levels of structure.



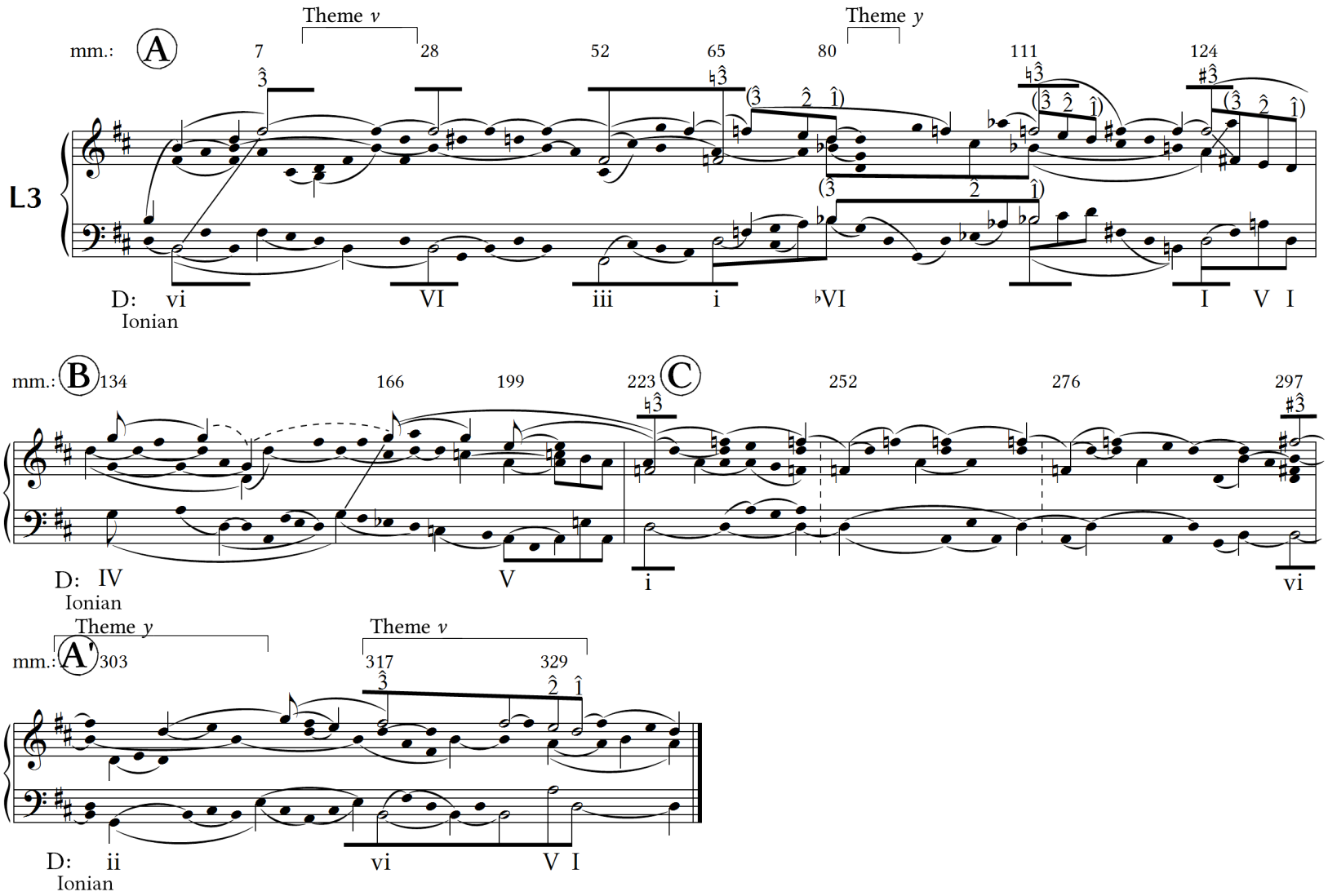
Example IV.16. Vaughan Williams, *Benedicite*, mm. 156–158.

In general, the middleground of the *Benedicite* contains mostly harmonic arpeggiations and stepwise melodic progressions. While most of the arpeggiations clearly outline the local tonic chord, the stepwise lines also emphasize the tonic by progressing to and from pitches in the tonic triad. With respect to counterpoint, since Vaughan Williams uses a variety of techniques at the musical surface, we expect to see a similar variety in the middleground. The previous examples demonstrate this to be the case, although lines at deeper levels of structure seem to conform more closely to traditional (that is, eighteenth- and nineteenth-century) practice. One possible reason for this is that bass lines, which follow large-scale harmonic motion, are more likely to skip between chord members or between fifth- and third-related harmonic roots. This allows them to act more independently from the mostly conjunct structural soprano.

IV.5. Structural Patterns

The formal analysis in section IV.1 provides the foundation for determining the complete prolongational structure of the *Benedicite*. Based on the characteristics described in chapter III (specifically section III.3.4), we can make some predictions about the structure based on the piece's form. First, the overall ABCA' formal design means that the surface elements or patterns consistent between the first and last sections will also have the same function in deeper levels of structure. The beginning of the *Benedicite* is much longer than the end, but both sections establish the primary tone, and since the first A section ends with a strong cadence on D in measure 132, both sections prolong the tonic and conclude with some sense of finality. The conclusion of the A section occurs in a lower register and with shorter note values than the end, which helps one aurally identify the first as a less-significant and temporary ending, and the second as the stronger and more conclusive descent. The reversal of themes in the A' section puts theme *y* at the beginning of the return, which Vaughan Williams sets in B-Aeolian instead of G-Aeolian. Theme *v*, which returns later in measure 317, emphasizes D more than F♯, and so having theme *y* enter first helps to reestablish the primary tone using a theme that strongly emphasizes that scale degree. One can see each of these features in the complete L3 graph shown in example IV.17.

The internal forms of both the A and B sections contain no repetitions, so the relationship between their form and prolongational structure will need to be determined through other means. The strophic form of the C section, however, does tell us that each verse should have the same function at some level. Looking at example



Example IV.17. Vaughan Williams, *Benedicite*, L3 prolongation graph.

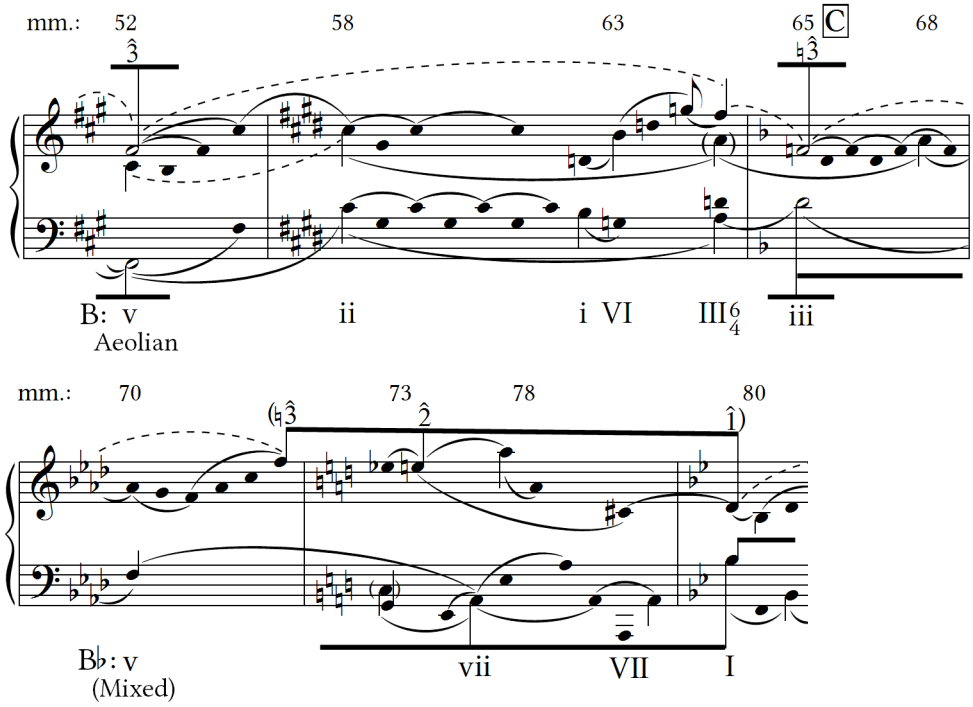
IV.10, one can see that they all prolong the minor inflection of the primary tone, except that the modulation down to B at the end of the third verse means it must then prolong D, a third below the primary tone, in order to be consistent with the other verses. The return of the major inflection of the primary tone in measure 297 allows the D previous to it to function as part of an ascending middleground arpeggiation. Where the mode and melodies remain the same in the first two verses and most of the last one, differences in the harmonization still change the prolongations in ways significant enough to reach deep into the middleground, as one can see in example IV.17. Eventually, however, the verses prolong the same structural elements up to the modulation.

Within these larger formal outlines, local sectional blocks also play a role in the shape of the overall structure. Many sections that are highly active on the surface of the music– often because of polyphony– become part of harmonically static sections at the middleground. As I have already observed, the strophic verses contain chordal outlines that prolong D-minor, the tonic harmony, with the primary tone at the peak of the arpeggiations. These may have frequent harmonic changes on the surface, but become a single formal block prolonging a single, static harmony when looking at the deeper structure.

Much of the B section also contains a highly active surface that becomes part of static harmony at the middleground. In example IV.14, we can observe that a variety of harmonies accompany the ascending middleground line, and that even beyond the registral peak, the harmonies change frequently with the ascending and descending of the melody. Comparing this with example IV.17 shows that the variety of harmonies

that appear on the surface become part of a static prolongation of G-minor that begins with the start of the Lento section in measure 134, and only concludes with the cadence on the D/C chord in measure 173.

Some passages also reverse the process by statically maintaining a single harmony at the surface that becomes part of harmonic motion at a deeper level. Each of the short tonic areas in measures 52–79, for example, contains a static prolongation of the local tonic chord, but in combination they provide middleground harmonic motion that leads from the opening B tonic to B♭ in measure 80. We can see in example IV.18, the L2 graph of these measures, that the bass line ascends the fifth from F♯ to C♯ in measure 58, but then the C♯ descends by step to A, which becomes $\hat{5}$ in D. These



Example IV.18. Vaughan Williams, *Benedicite*, L2 prolongation graph of mm. 52–80.

movements prolong an octave coupling of the primary tone as well as an inner-voice progression from the C♯ to B in measure 63, and then A in measures 64 and 68. I have already described the transition from D in measure 65 to B♭ in measure 80 as a stepwise descending root progression. Thus, while the harmony remains static within each tonic area, at the middleground they are part of a larger harmonic progression.

Measures 173–198 are somewhat enigmatic in their prolongation of the unstable D/C chord. Much of the section involves harmonic motion at the surface of the music that seems to prolong D as a tonic. D-major chords with C as a bass note return at key points throughout the section, which makes it look like a large-scale static block prolonging the third-inversion seventh chord. The instability of this harmony makes it an unlikely candidate for retention at the background level, however, which brings up the question of what other possible functions it might fill.

Towards the end of the section, polyphonic lines seem to start emphasizing pitches outside of the D-major triad, especially in measures 196–198. Beginning in measure 191, C becomes a pedal bass pitch, which means that in the absence of contextual emphasis, the pitches above it that one is likely to perceive as stable would be the ones belonging to the C-major triad. The choral soprano reaches a registral climax on G in measure 194, and the soloist begins a descending line on the same G in measure 196. Before reaching A in measure 199, the bass C descends to B, filling in a long-range bass descent from G (in measure 165) to A. By taking these factors into consideration, we could interpret the D/C chord as a long-range suspension, where the D-major triad begins as V in G, gets suspended over the C, and finally resolves to a C-major triad before the bass descends stepwise to A.

Although this may not be the only interpretation, it coincides with the structural soprano pitches in the section. As example IV.17 shows, much of the preceding section (measures 134–176) prolongs G as an upper-neighbor to the primary tone. The choral soprano part then reaches A in measure 170, supported by the harmonic move to D (this starts as D-minor, but becomes D-major in measure 173). A lower-octave coupling of the A also features prominently in measures 176–190. The choral arrival on G in measure 194 then provides a resolution of the A back down to G above the C pedal.

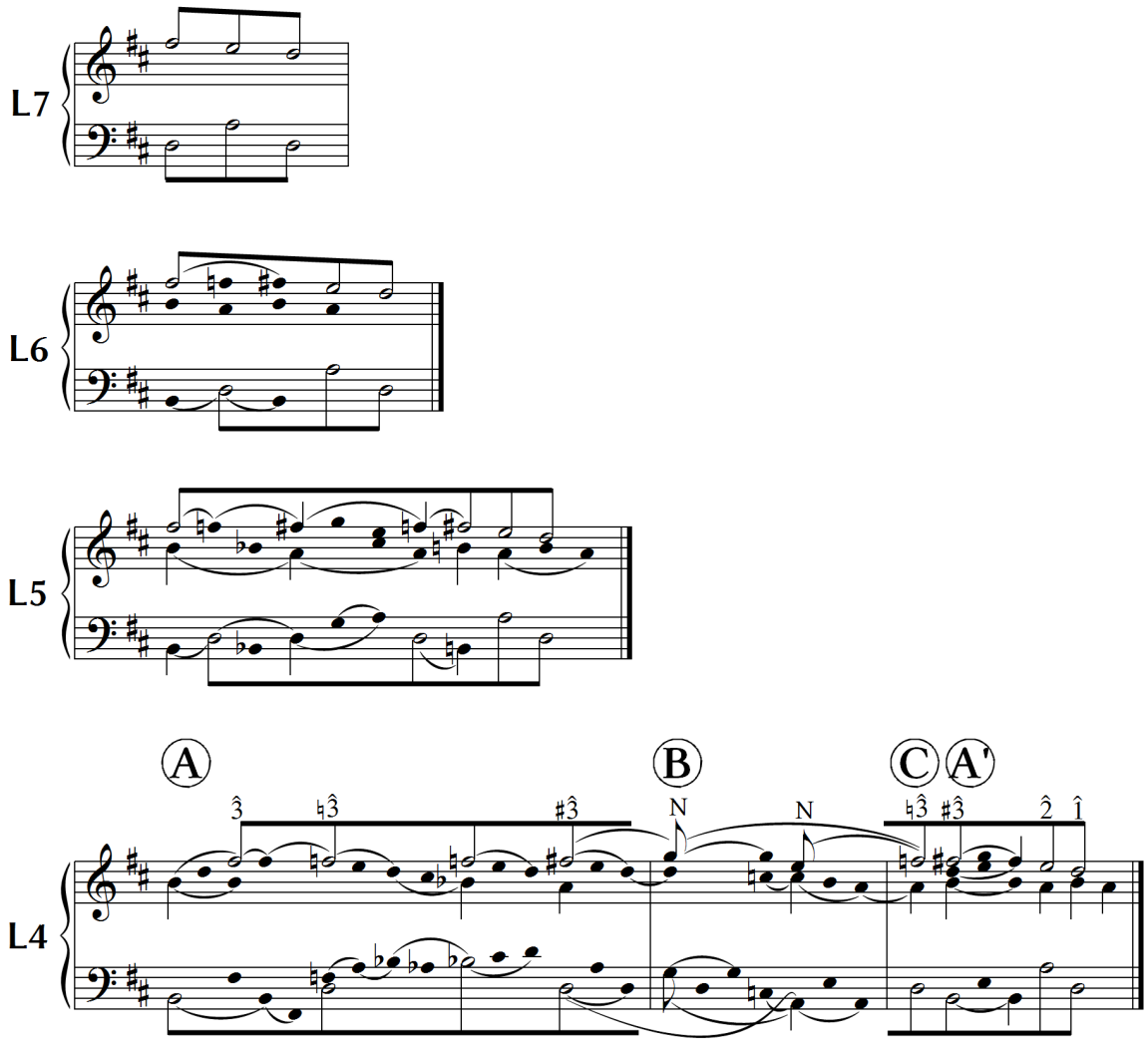
This interpretation of the D/C prolongation shows us that the switches between stasis and motion can occur at more than two levels in the structure. The musical surface of these measures contains considerable harmonic motion within the mode, but then the repeated emphasis of D-major triad members and repeated D/C chords shows that the next level exhibits harmonic stasis. Finally, we can interpret that harmonic stasis as part of an even larger harmonic motion that covers a significant portion of the B section.

The L3 graph in example IV.17 starts to bring together all of the parts of the piece that we've been discussing. We can see that the A section establishes and prolongs the primary tone in both minor and major inflections. The section includes diversions into other tonic areas, but these diversions ultimately help prolong either B or D as tonic. As a preview to the conflict for the whole piece, the A section eventually resolves from B at the beginning to D, with a 3-line in D-Ionian completing the section. The B section prolongs G as an upper-neighbor to the primary tone, supported by the large-scale subdominant. E also appears at the end of the section, supported by A-major, and acts as a structural lower neighbor to the primary tone. Both the G and E

resolve to F♮ at the beginning of the C section, and the majority of that section then prolongs F with D-minor as the primary harmonic support. The modulation at the end restores the opening pitch collection and ♯$\hat{3}$, which gets prolonged through the A' section. The E-Aeolian passage in the A' section contains D and E underneath another G upper-neighbor. The E and G resolve to F♯ in preparation for the final descent. Harmonically, the A' section mostly prolongs B-minor, but the final switch back to D (as the tonic) accompanies the descent to $\hat{1}$ in the fundamental line at the end. The finality of the move gets reaffirmed by the secondary voice's A-B-A covering motion.

I have included the remaining prolongation graphs in example IV.19, although one can see most or all of the information that they display in example IV.17. The prominence of F♯ (♯$\hat{3}$) and F♮ (♮$\hat{3}$) throughout the composition and the climactic descent in measure 329–331 are part of a traditional background structure. The significant appearances of B as a harmonic support for the primary tone make it an important part of the piece, but at the deepest levels it becomes subsidiary to D, since D appears intermittently during the whole composition and a significant cadence strongly establishes it as the tonic at the end of the A and A' sections. The minor and major modal inflections of the primary tone, and the structural neighbor tones accompanied by subdominant and dominant harmonies, are the next prolongational devices that Vaughan Williams uses after the tonic alternations. These also include other less-significant harmonic contexts for the modal inflections.

As one would expect based on the established methodology, Vaughan Williams's structures follow patterns that correlate with the form of the music, which he in turn based on the form of the text. As I have shown above the L4 graph in example IV.19, the



Example IV.19. Vaughan Williams, *Benedicite*, L4–7 prolongation graphs.

A section introduces the conflict between tonic areas, prolonging the primary tone as ♯$\hat{3}$ and ♮$\hat{3}$. The B section contains the structural subdominant and dominant areas and represents the most substantial diversion from the primary tone in the piece. The C section reestablishes the primary tone, and, as mentioned above, it consistently prolongs that tone through arpeggiations and middleground-level static harmony,

which is why it reduces to a single chord in the L4 graph. A' brings back the opening material and provides the background descent.

IV.6. Text Portrayal and Religious Meaning

Much of the surface-level text painting appears in the A.b section. As I observed in IV.1, a major reason for this is that one can easily set many of the elements in that part of the *Benedicite* text with musical parallels, especially since they are elements that have a physical– and even aural– effect on the person experiencing them. One can also make a number of other connections between the meaning of the text and the way Vaughan Williams set it, using the formal and structural information gained from this analysis. While the text-musical connections I will discuss here certainly do not constitute the only way to interpret the piece, their presence shows Vaughan Williams's sensitivity to the religious nature of the words and the impact his setting might have had on those who performed and listened to it.

The composition opens with the invitation for the divine-celestial elements to praise the Lord, and we can begin by associating these elements with the home pitch collection (2 ♯s, whether B-Aeolian or D-Ionian), the robust confidence of the opening themes, and the clearly triadic prolongation strategies. The natural-celestial elements follow with surface text-painting, showing a move from a broad, eternal approach to a more localized, temporal approach to the text setting. These elements travel through different tonics and shifting modal inflections of structural lines, reflecting the travel through starkly contrasting parts of nature like the "Sun and Moon," "Fire and Heat," and "Winter and Summer."

In the B section, the change of mood to a slower, mellow setting portrays the shift to the natural-terrestrial elements. These elements would have had some significance for Vaughan Williams because of how their pastoral quality relates to his nationalistic ideals and the "Green things," "Hills," and the "Seas" that he saw around him in his homeland. It is no wonder, then, that the gentle serenity of this section has a similar quality to passages from some of his best-known nationalist instrumental works, such as *The Lark Ascending*, *Fantasia on a Theme of Thomas Tallis*, and the *Pastoral Symphony*.

The second half of the B section, which contains the prolongation of D/C and the A tonic area, includes the text section associated with actual people. The first half of the piece thus travels from the heavens, through the sky, to the earth and the people on it. Once the people have been reached, the temporary sense of rest and stability portrayed at the end of the B section yields an appropriate sense of arrival at a place apart from, but connected to, the heavenly home: the dominant of D.

Vaughan Williams's portrayal of the earth and the people on the earth also begins to preview the individuality that I referred to in the Austin poem, since it is in the B section that the soprano soloist first enters the piece. The contrasts between the solo and the chorus suggest a distinction between the position of the individual and the position of the rest of the universe with respect to the praises of God. This distinction becomes clearer in the musical setting of the Austin poem. Since the speaker in the first verse of the poem observes and comments on the praises given by the rest of the universe, Vaughan Williams has the soloist sing the melody and the poem text, while the chorus, representing "everything," continues on the text "praise him and magnify

him for ever." The second verse invites the individual to join in the praises, and so the chorus sings the verse and extends the invitation while the soloist complies by singing the "praise" text. Finally, in the third verse the individual has joined the rest of the eternal throng, and so there is no need for a solo separate from the ensemble. As an additional surface-level touch, the choral unison sings "One in Three and Three in One," with the phrase "thrice we bow" having a rhythmic triplet on the first word.

The soloist enters at the beginning of the A' refrain singing "Bless ye the Lord," which reminds the listener that the individual is now one of the many elements praising the Lord. When theme *v* returns, it brings back the "works," "powers," and "earth." These elements return in the order that they appeared earlier in the text, which means that the final structural descent occurs on the phrase referring to the earth, the lowest of the three and farthest from heaven. Thus, over the course of the piece, a descent is undertaken from heaven to the earth and to the individual upon the earth, where the individual is invited to join the heavens in praising the Lord. The individual joins and the music returns to themes from earlier in the text, which encapsulates all of the previous elements and brings the individual into communion with the heavens. In this light, we may also be able to attribute Vaughan Williams's use of D-Aeolian and ♮$\hat{3}$ in the C section to being part of the condescension of Christ to the earth in order to redeem the individual, who later joins the heavens when ♯$\hat{3}$ is restored. One can see, then, that in very subtle ways Vaughan Williams may be portraying Christ's redemption of Man through a musical depiction of these two combined texts.

We can make one other significant text-music connection with respect to the relationship between B and D as conflicting tonics for the piece. In Christian terms,

anything that one can refer to as a conflict can be compared to the ultimate conflict between good and evil. To do so with the two conflicting tonal centers has some basis in their musical relationship, which the array in example IV.3 helps portray. In the home pitch collection, D appears both brighter, because of its major triad, and higher. In addition, the tonics used to support B all use the same mode: Aeolian. Vaughan Williams uses a variety of modes with the tonics that support D, including Aeolian, but they at least include Ionian and Mixolydian, and the dominant– the strongest support– uses the Ionian key signature and ends on a major triad.

These characteristics support the idea that D could represent good while B represents evil.[37] Throughout the piece, the two tonics vie for prominence, with only subtle additional support for D rather than B. In the end, B resolves to A and the structural descent leads the whole ensemble to D as the reigning tonic. In the final measures, the individual– represented again by the soloist– makes a decisive resolution from B to A, showing the individual forsaking evil and embracing the opportunity of redemption to become unified with goodness and the "D"ivine tonic.

The observations made here show that regardless of his own religious beliefs, Vaughan Williams skillfully used subtle but poignant ways of conveying Christian spiritual meaning in his sacred choral music. He had a vision for what he wanted to convey in this piece, and executed it in a way that successfully integrates the music and the meaning of the text. Ursula Vaughan Williams once said of the composer that "although a declared agnostic, he was able, all through his life, to set to music words in

37. This text-music relationship may also have some grounding in tonal tradition. As Wilfrid Mellers points out, Bach's B-minor Mass uses B-minor and D-major as conflicting keys, potentially depicting aspects of evil and goodness, respectively, and the history of key symbolisms since then may have played a subtle (probably subconscious) role in many of Vaughan Williams's compositions, including *Benedicite* (Mellers 1989, 262–266).

the accepted terms of Christian revelation as if they meant to him what they must have meant to George Herbert or to Bunyan" (U. Vaughan Williams 1964, 138). The degree to which he believed the words that he wrote may remain a mystery, but we can be certain that he understood the words and was willing to put his vision to work in order to uplift and inspire those who would perform and listen to his music.

CHAPTER V

HOLST'S *THE HYMN OF JESUS*

Holst wrote *The Hymn of Jesus* in 1917, only a year after completing *The Planets*, but was not able to hear it performed until 1920 when it was performed twice: once informally with piano accompaniment, then in a public concert with the London Philharmonic.[38] The text comes from Holst's own translation of a segment from *The Acts of John*, an apocryphal text with Gnostic origins dating back to about the second century (Pick 1909, 124[39]; Hennecke, Schneemelcher, and Wilson [1963] 1992, 166). As I mentioned in section I.2, Holst wrote little about his religious beliefs, leaving much of what he believed a mystery. He never fully ascribed to any particular religion or church (I. Holst 1969, 21), but based on the music he set and the little he did write, we can assume that he assimilated religious ideas from a variety of sources. Hindu ideals feature prominently in some of his works, especially in his translation and musical setting of hymns from the *Rig Veda*, but Christianity also played a significant role in his compositional output. Because he chose and translated the text for this piece himself, Holst's treatment of the *Hymn of Jesus* text offers insights into his understanding of its meaning that we can examine along with the structure of his composition.

As with the previous chapter, I will first examine the text in order to determine its structure and any characteristics that may relate to the structure of its musical setting. I will then follow the analytical methodology and examine the establishment of

38. See Boyer 1969, 24. *The Planets* also received its first complete performance in 1920, and both pieces were considerably successful, though Holst apparently did not enjoy the success: "It has made me realise the truth of 'Woe to you when all men speak well of you'" (G. Holst 1974, 56).

39. Pick's 1909 book is another that Holst may have had access to, since it was published before he completed his translation of the "Hymn of Jesus." This is why I have used it for some of the citations here.

tonicity, the context for harmonic and melodic stability, and the relationship between the form and the prolongational structure. Finally, I will compare aspects of the musical analysis with the text and discuss different levels of text-music relationships in the piece. In assessing the pitch structure of the piece as well as its text-music connections, we can learn more about Holst's musical style as well as the religious beliefs he may have tried to promote through the music.

V.1. Analysis of the Text and Formal Design

V.1.1. Text Background

Holst's work with the *Rig Veda* probably introduced him to the idea of associating dance and worship, and when he found the words to *This have I done for my true love* at Thaxted church—also featuring significant connections between dance and worship—he must have been sufficiently intrigued by the idea that he began searching for more dancing hymns. This eventually led him to the *Acts of John* and the "Hymn of Jesus" found within it (I. Holst 1968, 55). In its source, the hymn is preceded by a description of how Jesus' apostles were to form a ring with Jesus in the middle, and references are made throughout the hymn to dancing and how the apostles were to follow Jesus in dance (Pick 1909, 180–183). Holst does not include anything about the ring scene in the piece, but the *Rig Veda* also contains references to a ring and the connection would not have gone unnoticed (Boyer 1975, 278). The hymn reveals its Gnostic orientation when phrases in the text such as "Ye who dance not, know not what we are knowing" point to a mysterious knowledge or experience that can only be gained by participating in the dance ceremony. This mixture of dance and worship, and

the potential connections between Hindu, and Christian belief systems, may have had a particular appeal for Holst's broad-minded religious perspective.

In rendering a translation of the text, Holst probably had the help of G. R. S. Mead, who wrote a book on Gnosticism (Mead 1900) that may have introduced Holst to the text, as well as a few other people. According to his daughter, Holst painstakingly wrote out each word, its pronunciation, and the closest English equivalent. Then he would reflect on the meaning of the words before setting out his own rendering. In his translation, Holst took special care with the meaning, the rhythm, and the sound of the words, which adds significance to the potential relationships between the words and music that we may find in this analysis.

Holst also added two plainchants with their texts as part of a Prelude before the hymn begins: *Vexilla regis prodeunt* and *Pange lingua gloriosi.*[40] Both chants come from the Passion week section of the Sarum antiphoner (Head 1999, 8), and so they fit together well with the references to Christ and his suffering in the *Hymn of Jesus*. The hymn also precedes a description of Jesus being taken to be crucified, so Holst's inclusion of Passion-related chants emphasizes the distinctly Christian aspects of the hymn. As Boyer has observed, the music of the chants can evoke a sense of sacredness, mystery, and even antiquity (1975, 276–277). In order to retain as much of the original character and phrasing of the plainchants as he could, Holst took the time to visit a monastery and listen to chants performed live (I. Holst 1968, 59).

40. It is also likely that both chants were written by the same author: Venantius Fortunatus (see Henry 1913a, and 1913b).

V.1.2. Text Analysis

Figure V.1 includes the entire text as Holst set it in *The Hymn of Jesus*, as well as the formal layout and major tonic areas in the piece. For the chants, Holst only uses the original text together with the melodies in the Prelude at the beginning (labeled A1). The melodies return in measure 211[41] (A1'), but it is with a different text. By using the complete chants in the Prelude, he introduces the idea of the Christian cross and the potential salvation that it brings before the Hymn section begins. Both chants refer specifically to the cross and the possibility of overcoming evil thereby, and the *Pange Lingua* adds an appropriate invitation to sing about Christ's triumph.

The Hymn begins with a set of "glory" phrases and two lines of praise that form their own section of the piece (section A2). At the end of each line, and throughout much of the composition, a refrain on "amen" serves to punctuate the phrases. Holst sets most of these amen statements using the same melodic idea, but with different pitches and harmonies, and with different rhythmic treatments in order to fit each part of the piece. Where "amen" is indicated twice in figure V.1, extra repetitions of it appear in voices other than the usual semi-chorus, for added emphasis.

A series of phrases based on an initial "fain would I..." follow the glory section and show what Holst might have thought of as a dialog between Christ and one of his disciples.[42] These repetitive statements describe various desires of the disciple and Christ's willingness to fulfill those desires. Holst changes the ordering of the last two

41. Measures in this piece have been numbered according to actual barlines, so the chants in the Prelude that do not have barlines are considered to be part of one measure.

42. He probably got the idea of a dialog from Mead's translation (1900, 431–434), where Mead labels the alternations with "C" for Candidate, and "I" for Initiator.

Measure	Section	Theme	Text	Tonic
1 **1**	A1	*a*	(instrumental Pange Lingua)	G
13		*b*	(bitonal instrumental figure)	G-C
21 **2**		*c*	(pentatonic neighboring chords)	A/C
27		*d*	Vexilla regis prodeunt / Fulget Crucis mysterium Quo carne carnis Conditor / Suspensus est patibulo. *(The royal banners fly / The mystery of the cross shines / Where the creator of flesh / Was hanged on a gallows.)*	A/C
30 **3**		*a*	Pange lingua gloriosi / praelium certaminis et super crucis trophaeum / Dic triumphum nobilem Qualiter Redemptor orbis / Immolatus vicerit. Amen. *(Sing, o tongue, the glorious / Battle conquest / And victory-symbol of the cross / Tell the renowned triumph / How the Redeemer of the world / As a sacrifice overcame.)*	G
31 **4**		*c*		C/A
41	A2	*e*	Glory to Thee, Father! Amen	C-E
53 **5**			Glory to Thee, Word! Amen	A♭
62			Glory to Thee, O Grace! Amen	C
69		spoken	Glory to Thee, Holy Spirit! Amen	
72 **6**		*f*	Glory to Thy Glory! We praise Thee, O Father; We give thanks to Thee, O shadowless light! Amen	C
85 **7**	B	*g*, *f*	Fain would I be saved: And fain would I save. Amen Fain would I be released: And fain would I release. Amen Fain would I be pierced: And fain would I pierce. Fain would I be borne: Fain would I bear. Fain would I eat: Fain would I be eaten. Fain would I hearken: Fain would I be heard.	C A-C
106 **8**			Fain would I be cleansed: Fain would I cleanse.	
108		*e*′, *c*	I am Mind of All! Amen	E
113			Fain would I be known.	
115 **9**	C	*e*″	Divine Grace is dancing: Fain would I pipe for you.	E
132 **10**			Dance ye all! Amen	E-A
135 **11**			Fain would I lament: Mourn ye all! Amen, Amen	A-C♯
147		*h* (*g*′)	The Heav'nly Spheres make music for us; Amen	(F-D-
151 **12**			The Holy Twelve dance with us; All things join in the dance!	G-A)
168 **13**		*i*	Ye who dance not, know not what we are knowing. Amen	A-C♯

Figure V.1. Form and text table for Holst's *The Hymn of Jesus*. Inverted numbers are rehearsal marks. (continues on the next page).

176	B'	*e*, *g′*	Fain would I flee: and fain would I remain. Amen	C♯
182 **14**		*g′*, *g*	Fain would I be ordered: And fain would I set in order.	
			Fain would I be infolded: Fain would I infold.	(D-
			I have no home; In all I am dwelling.	G-
			I have no resting place: I have the earth.	F)
			I have no temple; And I have Heav'n.	
200		*j*	To you who gaze, a lamp am I: Amen	F♯-D
			To you that know, a mirror. Amen	
			To you who knock, a door am I: To you who fare, the way. Amen, Amen	E♭
211 **15**	A1'	*a*	Give ye heed unto my dancing:	E♭
			In me who speak, behold yourselves; Amen	
		k	And beholding what I do, keep silence on my mysteries.	E♭-A♭
219			Divine ye in dancing what I shall do;	F
222		*a*	For yours is the passion of man that I go to endure.	C
224 **16**		*d*	(instrumental)	A
232 **17**		*d*	Ah	B-D
240		*b*		A♭-G
247 **18**		*k* (*g′*)	Ye could not know it all	C
			What thing ye endure, had not the Father sent me to you as a Word.	
255 **19**	D	*l* (*b′*)	Beholding what I suffer, ye know me as the Sufferer.	C
			And when ye had beheld it, ye were not unmoved;	
			But rather were ye whirled along, ye were kindled to be	(G♭-
269 **20**			wise.	C-F)
271		*l*	Had ye known how to suffer, ye would know how to	F-D-
			suffer no more.	A
277 **21**			Learn, and ye shall overcome.	
		j	Behold in me a couch: rest on me! Amen	G-C
286	A2'	*l′*/*f*	When I am gone, ye shall know who I am;	C
			For I am in no wise that which now I seem.	
295 **22**		*f*	When ye are come to me, then shall ye know:	
			what ye know not, will I myself teach you.	
301 **23**		*g′*	Fain would I move to the music of the holy souls!	A♭
306		*j*	Know in me the word of wisdom!	G
309			And with me cry again:	(F-E-
				D)
311 **24**		*e*	Glory to Thee, Father! Amen	C-E
325 **25**			Glory to Thee, Word! Amen	A♭
			Glory to Thee, Holy Spirit! Amen, Amen	C

*Local chord progressions appear in parentheses

Figure V.1. (continued)

pairs of phrases and changes the last from a "fain" phrase to "I am Mind of All!"[43] With this phrase being set off on its own, seven "fain" phrases remain, possibly showing a sensitivity to Christian numeric symbolism.

The phrase "Divine Grace is dancing" breaks away from the repetition in the previous lines (although the "fain would I..." pattern continues to return periodically) and dancing as a form of worship becomes the central focus of the text. This culminates with the phrase "Ye who dance not, know not what we are knowing," making explicit the connection between dance and knowledge mentioned earlier. Holst makes another interesting choice in his translation of the phrase "The Heavenly Spheres make music for us." Other translators use the word "Ogdoad" (Holy Eight) instead of "Heavenly Spheres," and so Holst again changes the words in order to move away from the number eight in favor of some alternative. This change, and the fact that he retains the number twelve in the next line, seem to show Holst giving preference to well-known Christian numbers. It is also possible that the sound of the words had a significant influence on the decision.

The dialog-like format returns with the phrase "fain would I flee." Three phrases using the familiar "fain" wording precede another trio of phrases using the "I have no home..." construction, likewise followed by three phrases beginning with "To you..." Both Holst and his audiences would have recognized the significance of three sets of three phrase pairs here, especially as it relates to the Christian Trinity. Some of the words also point to the divinity of Christ, such as "In all I am dwelling" and "And I have Heav'n."

43. Both Mead (1900, 432) and Pick (1909, 181) translate this phrase pair similarly, as "I would be understood, being all/wholly understanding," which stays more consistent with the previous phrase pairs.

When Jesus says "Give ye heed unto my dancing," the text begins to proceed in a more prose-like manner, with fewer text repetitions and a freer structure. The theme of dancing as a means to secret knowledge continues in the phrases "And beholding what I do, keep silence on my mysteries" and "divine ye in dancing what I shall do." The text then turns to the suffering of Christ at "Beholding what I suffer," leading once again to the power of knowledge at "Learn, and ye shall overcome."

The last part of the Hymn brings together a number of religious themes from earlier in the text. Acquiring knowledge and salvation through Christ is portrayed in the line "When ye are come to me, then shall ye know," and "Know in me the word of wisdom." Dancing also returns with "Fain would I move to the music of the holy souls." Finally, the Hymn concludes with only three of the original five "glory" statements, but the three that return make clear the centrality of the Christian Trinity: the "Father," the "Word," and the "Holy Spirit."

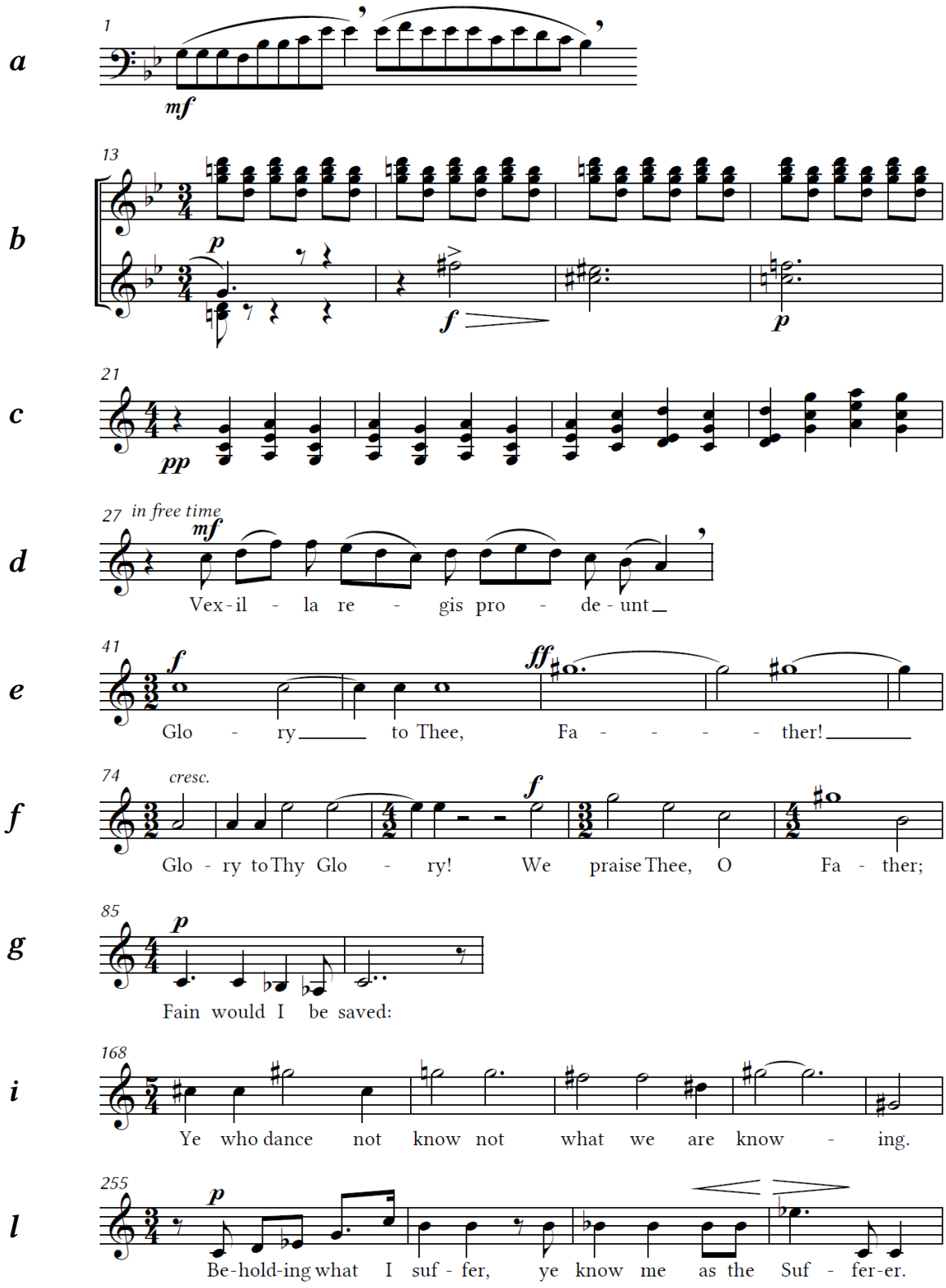
The Hymn text divides formally according to the blocks of phrases with consistent internal repetitions. The chants provide an introduction to the theme of overcoming evil through Christ. Then, the first "glory" section consistently offers praises to God, while the next section includes the paired "fain" statements. The following section of the text includes a variety of phrases generally unified by the theme of dancing. The section containing three sets of paired statements with three lines in each set comes after. The paired statements have a structure similar to that in the "fain" section (section B), but other wordings are used that delineate the phrase sets. Much of the rest of the text is prose-like, with little as far as text patterning, but shifts in focus help separate it into sections on dancing and enduring, on Christ's suffering, and

on the knowledge and wisdom Christ can provide. The concluding set of "glory" phrases at the end is the only text in the Hymn that gets repeated as a block, and it provides a conclusion to the whole.

V.1.3. Text and Musical Form

Holst uses the natural form of the text for most of his musical form, including the repeat of the "glory" segment at the end. He then reinforces the form with a number of other musical elements, including changes in melodic themes, texture, mood, and tempo. The Prelude introduces the chant melodies in the instrumental parts first, as well as two other themes that return later in the piece. Theme *b* (see example V.1) includes static triad oscillations above a descending chromatic figure that creates a bichordal effect. Theme *c* also contains chord oscillations, but the combined chords form a pentatonic collection that becomes a backdrop for the choral *Vexilla regis* entry in measure 27 (see example II.10, p. 45). The *Pange Lingua* also gets sung over static accompaniment, but this time it is a single, sustained chord that can be constructed by stacking perfect fourths above G—the tonic of the chant melody—but with F in the bass. Holst restricts the chants to even rhythms with natural phrasing indicated by breath marks, showing his sensitivity to how chant would be performed in its traditional context.

The bold choral entry and dramatic leap of theme *e* at the beginning of the Hymn contrasts starkly against the calm and even movement of the Prelude. The third and fourth phrases of this section return briefly to a calmer mood and "Glory to Thee, Holy Spirit" is spoken rather than sung, but the excited mood returns with the last three



Example V.1 Holst, *The Hymn of Jesus*, selected themes.

lines. Holst sets these last phrases together, building to a climactic arrival on "shadowless light."

Holst set the dialog format of the "fain" phrases in alternating choirs throughout the B section, and frequently uses choral alternations in the B, C, and B' sections. "I am Mind of All!" brings back the leap from theme *e*, but the arrival also brings back the calmer pentatonic chords characteristic of theme *c*. Strict two-choir dialog gives way to a variety of other textures with intermittent tutti sections at "Divine Grace is dancing" (section C). The tempo and mood also switch to a lively 5/4 dance. Alternations do appear in this section, but they are often between pairs of choral parts or between upper and lower voices. Beginning in measure 156 on "All things join in the dance," the chorus sings the remainder of the C-section phrases together (without the semi-chorus).

When the paired text phrases return in measure 176, the first pair retains the tutti texture and provides a transition into the B' section. Holst goes back to choral antiphony in measure 182, and continues the pattern until measure 199, where the texture changes in preparation for Holst's distinctive, bichordal setting of "To you who gaze, a lamp am I" (see example II.14, p. 50). The uniqueness of the harmonic effect and the sparse accompaniment Holst used for these three lines of text make them stand out, almost as an independent section, although the harmonic activity (which will be discussed in V.3 below), text connection with previous phrases, and the return of chant melodies following it make it fit with the B section to a certain extent.

Holst begins reusing the chant melodies at "Give ye heed" (measure 211), but with different tonics and different harmonic contexts. Because of the familiarity of the chant tunes, the listener at this point would be able to make connections between the

ideas portrayed by the chant texts and the words in the Hymn. This would be especially evident where the text uses the word "passion" in the fifth line (measure 222). Reusing the chant melodies also allows Holst to connect parts of the form where there are not literal text repetitions, providing familiarity, unity, and balance to the form. At this point in the piece, the first appearances of chant melodies—those using the *Pange Lingua* tune in measures 211–224 and the instrumental version of *Vexilla regis* in measures 228–231—only contain incomplete fragments. On the other hand, when the combined treble choruses enter in measure 232, they sing the complete *Vexilla regis* melody on an open "Ah."

After the treble chorus has finished the chant melody, a return of theme *b* (from the beginning) then leads to "Ye could not know it all," where Holst uses staggered entrances that build up to a tutti line on "What thing ye endure." This tutti then leads to a new section on the text "Beholding what I suffer," introducing both new thematic material and a new formal section: section D (see figure V.1). Like section C, this section starts with choral alternations, but the alternations lead to a significant climax on "wise" in measure 269, and then the ensemble remains essentially together for the rest of the section.

Staggered entrances that appear in measures 286–289 would not immediately sound familiar to a listener, but it leads to an arrival in measure 296 of a melodic figure from measure 80 that a listener could recognize.[44] Upon reflection, one would notice that the passage has a different melodic contour than in A2, but it still begins with similar staggered entrances as found in measures 72–75, uses the same bass and harmonic

44. The recognizable part of the melody appears with the words "then shall ye know," an example of text painting based on the listener's direct experience of hearing the piece.

patterns, and climaxes on the same pitch and with the same melodic theme. This, therefore, signals the arrival of A2', the final formal section of the piece. The final lines of text before the "glory" refrain help recapitulate musical themes from throughout the piece as well as transition back to the original tonic. In the "glory" refrain, rather than repeat the spoken words, Holst uses the music from "Glory to Thee, O Grace" for the "Holy Spirit" phrase. He concludes with a brief "amen" coda.

From the foregoing discussion of the piece's form, we can gather a few general ideas about how Holst organized the piece. First, he uses the structural properties of the text as a basis for his form. This often means that where there is more structure in the text, the texture and formal divisions tend to be more structured, and where there is less structure in the text, the form tends to loosen as well. Second, Holst's reuse of the chant melodies with new text help provide unity and repetition to the form where such was not present in the text. Third, although some sections have distinct formal boundaries, many do not, and so the piece tends to flow from one section to the next. Because of this, one could interpret some passages as being either the end of the previous section or the beginning of the next.

V.2. Tonic Areas

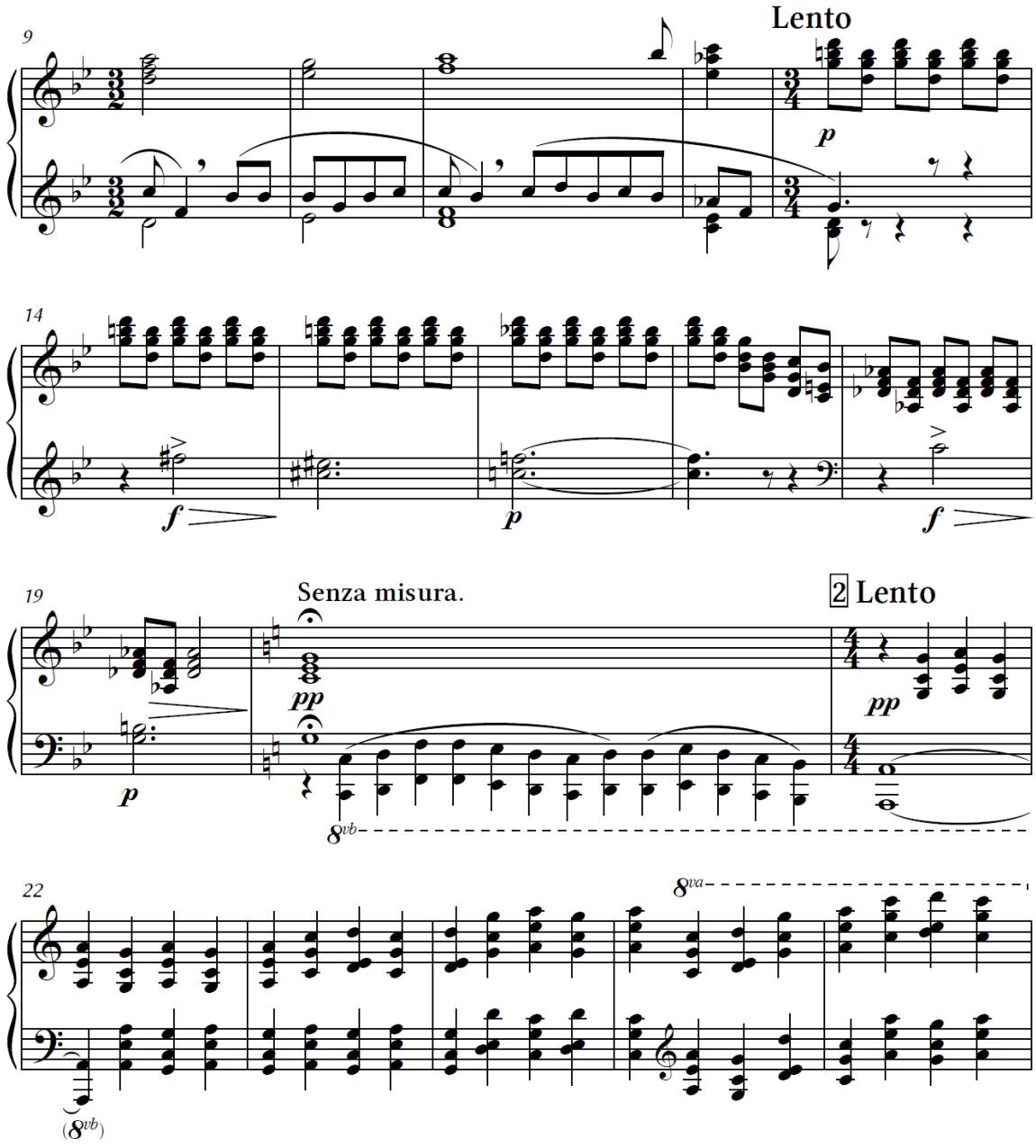
Pitch collections change frequently in *The Hymn of Jesus*, sometimes even above a single tonic. Melodies are often modal above a given tonic, but every harmonic change may bring a new mode, and so individual modes do not remain for any significant length of time. The modality of the melodic lines, therefore, do not play a significant role in the structure of the piece except that the background line seems to

retain the Mixolydian mode presented at the end of section A2 and at the beginning and end of A2'.

Holst generally establishes tonics at the surface of the music through metric placement, formal emphasis, and repetition—especially with ostinato patterns. The most stable and fundamental tonics tend to remain for longer periods of time, or as was the case in Vaughan Williams's *Benedicite*, they receive support from other weaker tonics. In a 1915 letter, Holst wrote that "the modern tendency is to enlarge the scope of a key" (G. Holst 1974, 3), which may mean that in Holst's music even though each local tonic area may contain its own tonic and pitch collection, at a larger scale they can be said to "enlarge" an overarching tonic. The objective of the following discussion of tonic areas will thus be to establish relationships between the tonics and thereby provide a key layout upon which we can base further analysis.

The Prelude starts clearly in G with an Aeolian key signature (two flats), but alternates between Aeolian and Phrygian with the occasional addition of A♭. As one can see in example V.2, G resolves to C in measure 20, but this seems to give way to A in measure 21. The *Vexilla regis* melody that enters in measure 27 could function in either A-Aeolian or C-Ionian (see example II.10, p. 45), and with the chords used throughout measures 21—27 and the resulting pentatonic pitch collection, either C or A could be heard as the stronger tonic for the passage. The relationship between these two pitches could be interpreted as a conflict similar to that in *Benedicite*, but here it is only local and does not permeate the entire piece. When the *Pange lingua* melody comes back in measure 30, it once again returns to G as a tonic, but this time the underlying harmony is the quartal chord mentioned above, making the passage much less stable. Stability

gets reestablished when theme *c* returns in measure 36 and we again have either C or A as a tonic.



Example V.2 Holst, *The Hymn of Jesus*, mm. 9–26.

In the A2 section, C is briefly established as tonic, but the leap to G♯ on "Father" also leaps to E as a tonic, reinforced by a descending bass line ostinato. The relationship between C and E forms another conflict, this time one that does become a significant part of the piece. Looking again at the table in figure V.1, one can see that C returns as tonic at the end of the A2 section, in two short passages in A1', and again at both the beginning and the end of A2'. On the other hand, E appears in measure 108, at the beginning of section C as the tonic of the first part of the dance section, and again in A2'. With the G in the Prelude as a possible dominant, the more frequent appearances of C, and the piece ending in C-Mixolydian, we can conclude that C functions as the overall tonic, and therefore E functions as a chromatic mediant.

With another leap at "Glory to Thee, Word," the piece modulates to A♭ in the same way that C gave way to E. This time, however, the A♭ does not form a significant part of the rest of the piece, but simply continues a cycle by major thirds that leads back to C on "Grace," outlining an augmented triad.[45]

Sections B, C, and B' contain mostly shorter tonic areas and chromatic chord progressions, so many of the tonics in these areas have not been indicated in figure V.1. The frequent harmonic changes in these sections make them relatively unstable as a norm, which is part of Holst's strategy for maintaining harmonic movement at deeper levels. Our attention must then focus on the larger tonal process and the relatively stable passages. I have already mentioned the appearance of E as a tonic in measures 122—133. The passage in measures 158—167 also exhibits some stability, with A as a tonic. In measure 168, the tonic moves to C♯ for a few measures, but the music moves

45. Holst acknowledged the influence of Mendelssohn, Grieg, and Wagner in a letter to Vaughan Williams written in 1903 (Vaughan Williams and Holst 1959, 20). His use of cyclical major thirds may be traced to the influence of these 19th-century composers.

on to less stable harmonic motion again shortly after. From that point until the A1' section, no other tonic lasts for more than a few measures. The strongest tonics thus far all come from the C-major triad except for A and A♭, which in C would both be inflections of the submediant.

When the *Pange lingua* melody returns in measure 211, it begins on B♭ which would be the local tonic except that E♭ gets sufficient repetitive and durational emphasis in the harmony to supplant B♭. This then moves to A♭ and then F before arriving on C for another short fragment of the *Pange lingua* melody in measures 222–224. Beginning at measure 224, the harmony becomes static but very dissonant, and because of the unstable nature of the harmony one does not hear anything that might sound like a tonic until four measures later. At that point (measure 228), the harmony changes slightly but remains unstable and the *Vexilla regis* melody returns in the instrumental parts using the original pitches. As noted with regards to the Prelude, the tonic of this chant could be either C or A. Since the chord stays the same, but the bass part alternates between A and B, one would perceive A as the more likely tonic for measures 228–231.

At measure 232, the *Vexilla regis* melody moves a whole step higher with a change in key signature to two sharps. The only change in the accompaniment is the F♯ resulting from the change in key signature, but that results in a slightly more stable harmonic context for the chant. A and B still alternate in the bass line, but because of the new position of the melody, one would more likely hear B as the tonic rather than A as before. Four measures later, a new bass part joins the accompaniment alternating the pitches D and A (played by timpani and bass trombone in the orchestra). The change in

emphasis of the harmony now points to D as the tonic for the remainder of the passage. Although the A1' section begins in E♭, the tonic movement later in the section seems to emphasize F and D, which would function as members of the supertonic in relation to the home of C. The E♭ and A♭ would be parts of a motion towards that supertonic.

At the conclusion of the chant in measure 240, theme *b* enters with a sudden shift to A♭. Chromatic descending motion pervades both parts of this passage, resulting in a gradual shift from A♭-major to G-minor. A low C enters in measure 247 that becomes tonic for the next passage, so we can treat the previous tonic areas as a transition to C. After some additional chromaticism, the chorus again arrives on C as a tonic in measure 254, so C remains tonic at the middleground through the end of the A1' section.

In section D, C remains the tonic for the first 8 measures, but G♭ appears in measure 263 as a tremolo chord that lasts until an arrival in F in measure 269. A C-major chord appears with the G♭ chord in measure 267, so rather than interpreting the G♭ as a new tonic, one might hear it as an embellishment of C and part of a transition from C to F. A subtle emphasis of D occurs in measures 272–273 and A also gets established briefly in measures 276–277, but the passage remains mostly unstable until the return of C in measure 283. The F functions in the context of the home tonic as a subdominant.

The tonics in A2' remain the same as in A2, except for the change of order and measures 301–310, where Holst briefly inserts themes from B and B'. Measures 301–305 seem to emphasize A♭, and then measures 306–310 emphasize G. We can interpret these

as part of a middleground cadential process that emphasizes the arrival back on C in measure 311.

In spite of the short and continually shifting tonics through much of the piece, C remains strong at significant points in the opening and closing, as well as a few places in the middle of the piece. With C as tonic, G in the prelude functions as a dominant and E in the interior sections functions as a mediant, outlining the complete C-major triad (see figure V.2). Tonic areas in A may function as a subdominant support of E, but they also function as a submediant in C. In a similar functional duality, the C♯ areas may prolong A, but also lead to D, which functions as II in C. The F tonic areas also support C, as structural subdominants. All of the most significant tonic areas in the piece therefore fit within a larger conception of a C tonic, reinforcing the concept of an expanded key as put forth by Holst.

Section:	**A1**	**A2**	**B**	**C**	**B'**	**A1'**	**D**	**A2'**
Main Tonic(s):	G	C	E	A	D	C	F	C
Function:	V	I	III	VI	II	I	IV	I

Figure V.2. Functions of subordinate tonics in Holst's *The Hymn of Jesus*.

V.3. Harmonic Structure

The Hymn of Jesus features a variety of sonorities, but we can still categorize and prioritize them according to the principles set forth in III.3.2. Holst treats triads as the most stable sonorities, including setting most of the important tonics with triads at significant points in the structure. Triads with added pitches also appear frequently, and except in cases where an upper-voice seventh gets prolonged, the triad remains the

primary harmonic element and we can treat added tones as embellishments of that triad. In addition, because triads are treated as the most stable sonorities, and because the analytical method focuses on the most important pitches in only the outer voices, harmonies will naturally simplify to triadic sonorities at deeper levels of structure.

Holst also uses pentatonic collections in positions of relative stability. I earlier used measure 27 in example II.10 (p. 45), which is an extension of theme *c*, to demonstrate pentatonicism. This theme appears in measures 21–27, 36–39, and 109–112, all of which are points of repose, where a single, stable tonic lasts for more than a few measures. Measures 199–200 also use a pentatonic collection, and measures 248–251 contain a pentatonic subset. These last two passages use rising motions that convey a sense of build, but the pitch collections are still more stable than the surrounding harmonies.

Holst uses other types of sonorities in *The Hymn of Jesus* as well, though most involve surface embellishments that may reduce to simpler entities at deeper levels. I have already referred to some of the bitonal or bichordal passages, and all of them involve one element embellishing a second more stable element. Another example of this appears in measure 276–7, where an E♭-G dyad enters against an established A-major chord. When the A-major chord disappears, E♭ stays and is joined by a C before moving on to another dissonant chord. In this case, the embellishing element of the bichord is part of a gradual harmonic transition. I also cited another non-triadic sonority from measures 85–88 in example II.11 (F+E bichord over C pedal, p. 46), noting possible derivations for the sonority. In this case, since C was the tonic in the passage previous to the example, the pedal bass on C would be heard as a continuation of the

same sonority. One would therefore hear the pitches that do not belong to C-major as embellishments of the C-major triad.

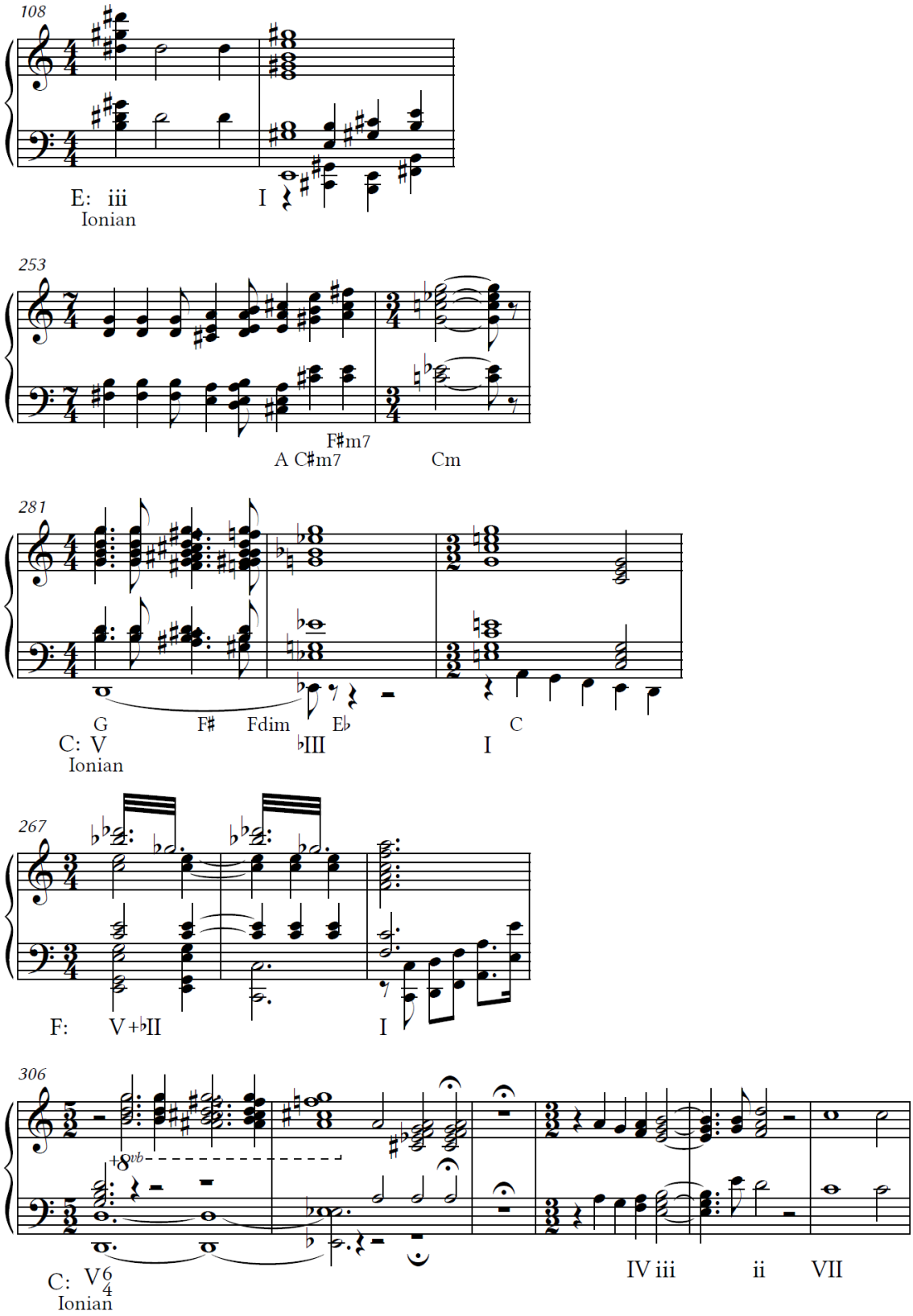
In order to determine the hierarchy among the many harmonies in this piece, one must rely heavily on contextual criteria: duration, repetition, and formal position. The relative stability of the chord or pitch collection must also be taken into account, based on the principles in section III.3.2. With C as a primary tonic, one would interpret chords and progressions that support C as more structural than those that do not. At a more local level, the same would be done for other tonic areas, although the fact that much of the piece does not contain chord progressions within a single mode or tonic area requires one to rely frequently on root relationships of chromatically related chords.

Cadences generally do not function as strongly in this piece as they do in Vaughan Williams's *Benedicite*, but some sections do include cadences that can help establish harmonic structure. The chant melodies contain melodic cadences as one would expect, but most do not have harmonic cadences to accompany them. Measures 11–13, shown above in example V.2, contain the only harmonic cadence found with the chant melodies. It consists of ♭II going to I in G, which in modal terms we might interpret as a Phrygian cadence with a major tonic. Even though this only occurs once with a chant melody, the Phrygian cadence does return in measures 64–65 and 334–335 with D♭-major moving to C-major. The second of these is the last harmonic cadence in the piece.

Holst often constructs cadences as an arrival—usually a registral and/or melodic arrival—followed by a pause or transition. Some cadences use harmonic motion, but

normally without a clear or consistent hierarchy. Example V.3 shows some of the cadence structures Holst uses in *The Hymn of Jesus*. In measures 108–109, a G♯-minor chord precedes the cadence but the chord shares two pitches with the upcoming tonic, so Holst uses the D♯ alone to prepare the cadence. Measures 253–254 contain the second half of a palindromic progression that leads from the pentatonic subset mentioned above to arrive on a C-minor chord. Contrary motion in the outer voices drives the progression as much as the harmony, and Holst's inclusion of raised pitches makes the arrival on C-minor rather sudden, which helps propel the music forward into the section on "beholding what I suffer." The third cadence in the example, from measures 281–283, shows a traditional motion from G to C (V to I), but with the bichordal treatment from theme *j* embellishing the G. The bichords resolve to an E♭-major chord in measure 282, so the embellishment involves having an extra chord inserted as well as having the descending chords added to G-major. Even with the added elements, however, we can see that this cadence does employ a clear harmonic hierarchy with tonic and dominant as structural frames.

I mentioned the fourth cadence with respect to G♭'s function in embellishing the C tonic and transitioning to F in measure 269. I have included it here to show how that transition is made and the significance of the resulting cadence. In terms of the arrival in F, C functions as a dominant and the cadential bass descends by fifth as one often sees in traditional tonal cadences. The G♭ above it functions as ♭II in F, providing the same Phrygian-style cadence as found in measures 11–13, 64–65, and 334–335. The C+G♭ bichord provides a significant amount of tension in preparation for the cadence,



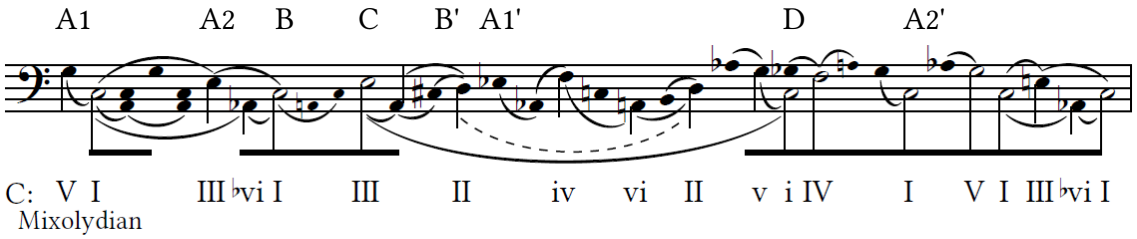
Example V.3. Holst, *The Hymn of Jesus*, selected cadences.

and that tension, combined with the cadential strength of each chord individually, makes the arrival on F-major very strong.

The last cadence in example V.3 contains an embellishment of G similar to that in measures 281–283. This time, however, some of the pitches of the previous chord are retained when the expected arrival on E♭ comes in measure 307, turning the chord into a dissonant combination of E♭-major and F♯-minor. After a measure of silence, measures 309–311 become strictly diatonic in C-Ionian, but avoid the pitch C until the arrival of A2' in measure 311. The harmonies leading to C include F-major, E-minor, and D-minor. Adding the G in measure 306, we have a complete stepwise descent from the dominant: V-IV-iii-ii-I.

As I did in chapter IV, we can combine the information from the analysis of tonic areas and the analysis of the harmonic structure to determine a possible bass line graph for the piece. For this graph, shown in example V.4, I have included most of the pitches indicated in figure V.1 as tonic areas or important harmonic progressions. One of the most distinctive features of this graph is that the deeper harmonic progressions follow traditional harmonic expectations much more closely than the surface harmony, which features frequent changes of both root and pitch collection. G as the dominant pitch appears at the beginning and again as a structural close near the end (using the cadence that introduces the A2' section as the structural close). The E in sections B and C functions as a structural mediant, which descends back to C by way of the D in sections B' and A1', a motion somewhat less typical of tonal music, but clearly diatonic in C nevertheless. The cadence on F in measure 269 forms a structural subdominant that

prolongs tonic in the latter half of the piece. Other local tonics support structural pitches in a similar manner, even though the surface pitch collections change frequently.



Example V.4. Holst, *The Hymn of Jesus*, bass graph showing the basic harmonic structure.

The final graphs will, of course, differ from this because parts of this graph will reduce out at different analytical levels. This is due to other factors involved in making a complete graph, including the relative structural weight of each tonic area at each level, and the stability of their corresponding harmonic elements. The melodic structure, which I will discuss in the next section, and the formal patterns in section V.5 also affect the structural weights of corresponding bass pitches. Nevertheless, the analysis of tonics and harmonic hierarchy has already shown Holst's ability to tie together modern and historical elements in a unique way.

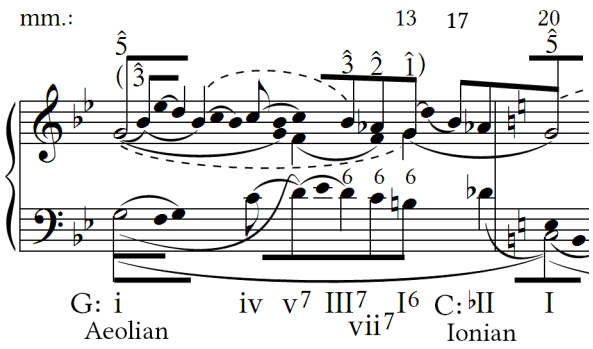
V.4. Melodic Structure

Holst's surface melodies are mostly conjunct, although leaps of varying kinds appear frequently, especially those related to the upward leap of theme *e*. Leaps in some cases stay within a given harmony, but may also jump from one harmony to the

next. Because of the prevalence of added-tone and other non-triadic harmonies, leaps may remain part of the harmony whether or not they form a consonance with the bass or root. Dissonant leaps, however, still tend to resolve to something more stable even if one can interpret the pitches as being part of the harmony. The more stable pitch will therefore be higher in the melodic hierarchy.

At the middleground, harmonic skips appear frequently, but arpeggiations like those in Vaughan Williams's *Benedicite* are less prominent, largely because of the rate and types of harmonic movement in *The Hymn of Jesus*. The conjunct melodic lines in the piece often connect middleground harmonic skips, many of which appear in the "fain" sections using theme *g* and its inversion (*g′* in figure V.1). At deeper levels of the structure, these will often verticalize into a harmonic interval.

Middleground stepwise progressions also appear frequently, and often connect the significant harmonic and formal arrival points discussed above. The *Pange lingua* chant has a $\hat{3}$-$\flat\hat{2}$-$\hat{1}$ descending line at the cadences (see example V.5 and measures 11–13 in example V.2). In the instrumental setting of it in the Prelude, a $\hat{5}$-$\hat{4}$-$\natural\hat{3}$ descending line accompanies it in the bass, along with a descending cadential harmonic progression,

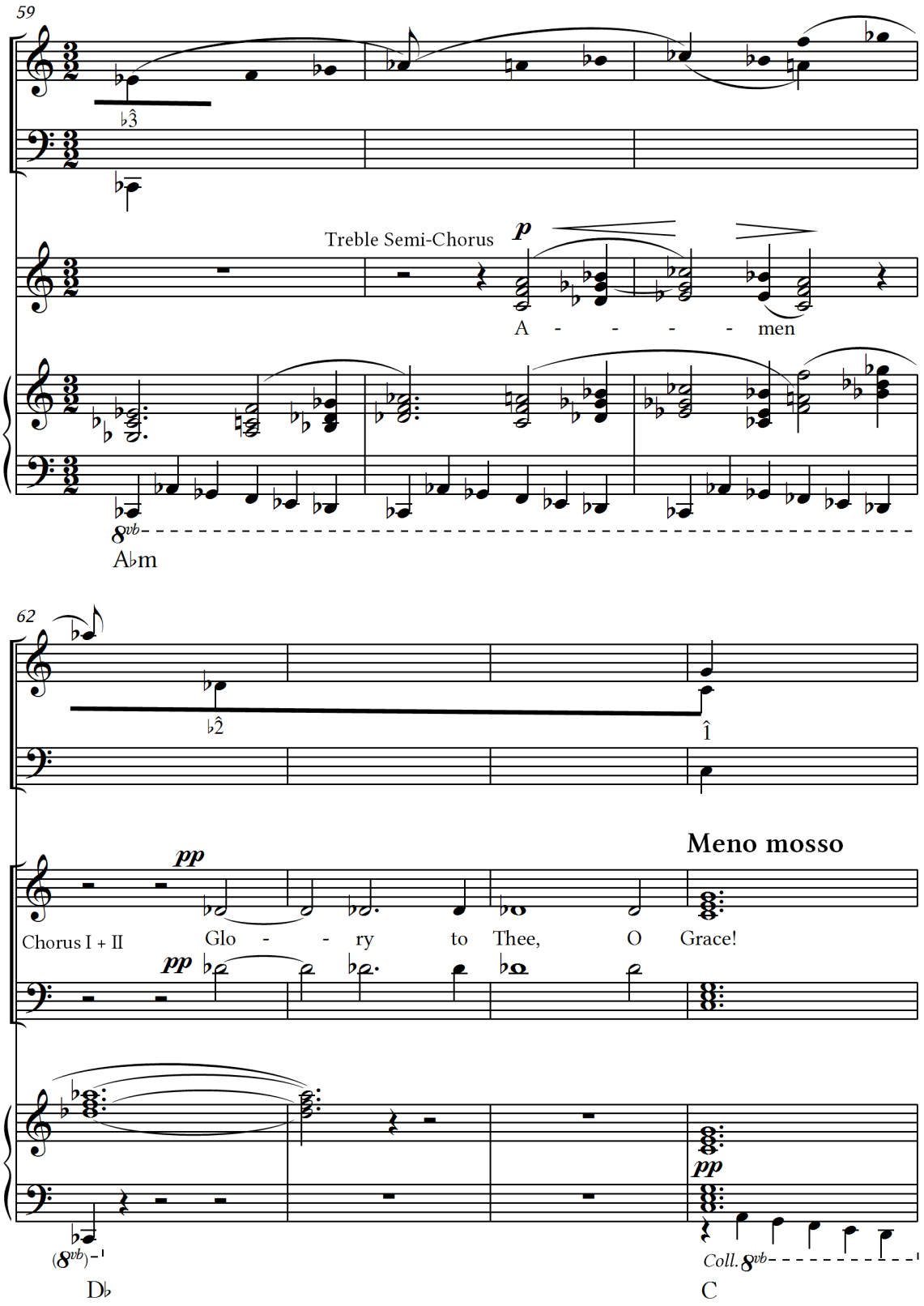


Example V.5. Holst, *The Hymn of Jesus*, L2 prolongation graph of mm. 1–20.

part of which I referred to earlier: III^7-♭II-I. The same middleground descent returns in measures 17–20, but this time the accompanying harmonies move from G-minor to D♭-major to C-major: another example of a Phrygian harmonic cadence.

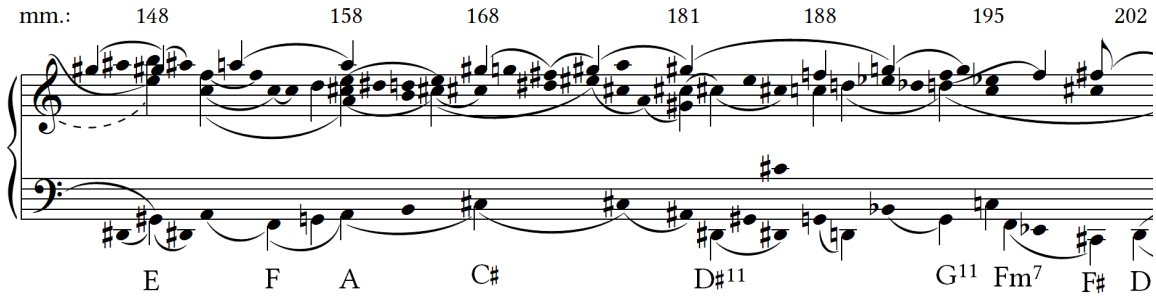
The D♭-C Phrygian cadence from measures 64–65 appears in example V.6. In the foreground, the D♭ actually rises to G at the cadence, but because of both gravity and magnetism, one can easily hear the D♭ descending to C underneath the G. The instrumental A♭ visible in measure 62 of example V.6 prolongs an A♭ from the chorus on "Word" in measure 55, which likewise continues from the G♯ in measure 43 on "Father." This A♭ also gets coupled in two lower registers in measures 57–60. We can therefore interpret the A♭ as part of an upper voice that resolves to the G in measure 65, forming parallel fifths with the lower-voice D♭-C motion. Since the passage concludes an A♭ tonic area, E♭ is the only tonic-chord pitch that could precede the D♭ to begin the lower voice line. In order to do so in the graph, one must use an E♭ from the middle of the instrumental melodic line in measure 59. This pitch is metrically accented, however, and appears in the same register as the D♭ and C at the cadence, so we can interpret the cadential motion as a Phrygian 3-line even though the first pitch is not emphasized as much as the others. At deeper levels, the E♮ from measures 48–51 replaces E♭ as a stronger $\hat{3}$ in the descent.

A longer middleground bass line begins when the root of the chord in measures 148–149 moves up by half step from E to F in measures 152–153 (see example V.7). Once the ascent has been initiated, one would expect it to continue until it reaches some stable goal point. Measures 157–158 fulfill the expectation when G moves up to A, since



Example V.6. Holst, *The Hymn of Jesus*, mm. 59–65, with prolongation graph.

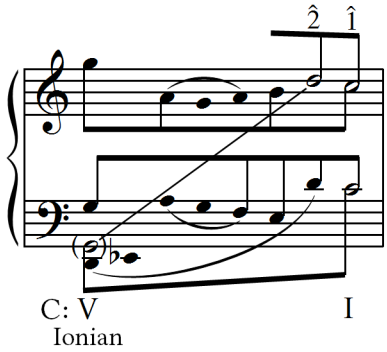
the A is sustained and treated as a local goal. Motion further upward occurs in measures 167–168, where A moves to B and then C♯. In the same passage, a G♯ above the E harmony in measures 148–149 moves up to A above the F, and then A gets prolonged until measure 168, where it goes back to G♯. Upper and lower neighboring motions then prolong G♯ until it moves down by half-step to G♮ in measures 191–194, which again descends in measures 199 to F♯. Immediately following the diatonic bass ascent, therefore, the soprano begins a chromatic descent. In the measures immediately following the example, the F♯ continues to move downward, but at a deeper level, D is the prolonged harmony (see example V.4) so the long-range resolution of F♯ is up to G when D moves down to C in measure 254. The magnetic tendency of F♯, especially in the context of a piece with C as tonic, also supports the interpretation of an eventual upward resolution. As shown in the cadence in example V.3, this resolution occurs on the surface as well as in the deep middleground.



Example V.7. Holst, *The Hymn of Jesus*, L2 prolongation graph of mm. 148–202.

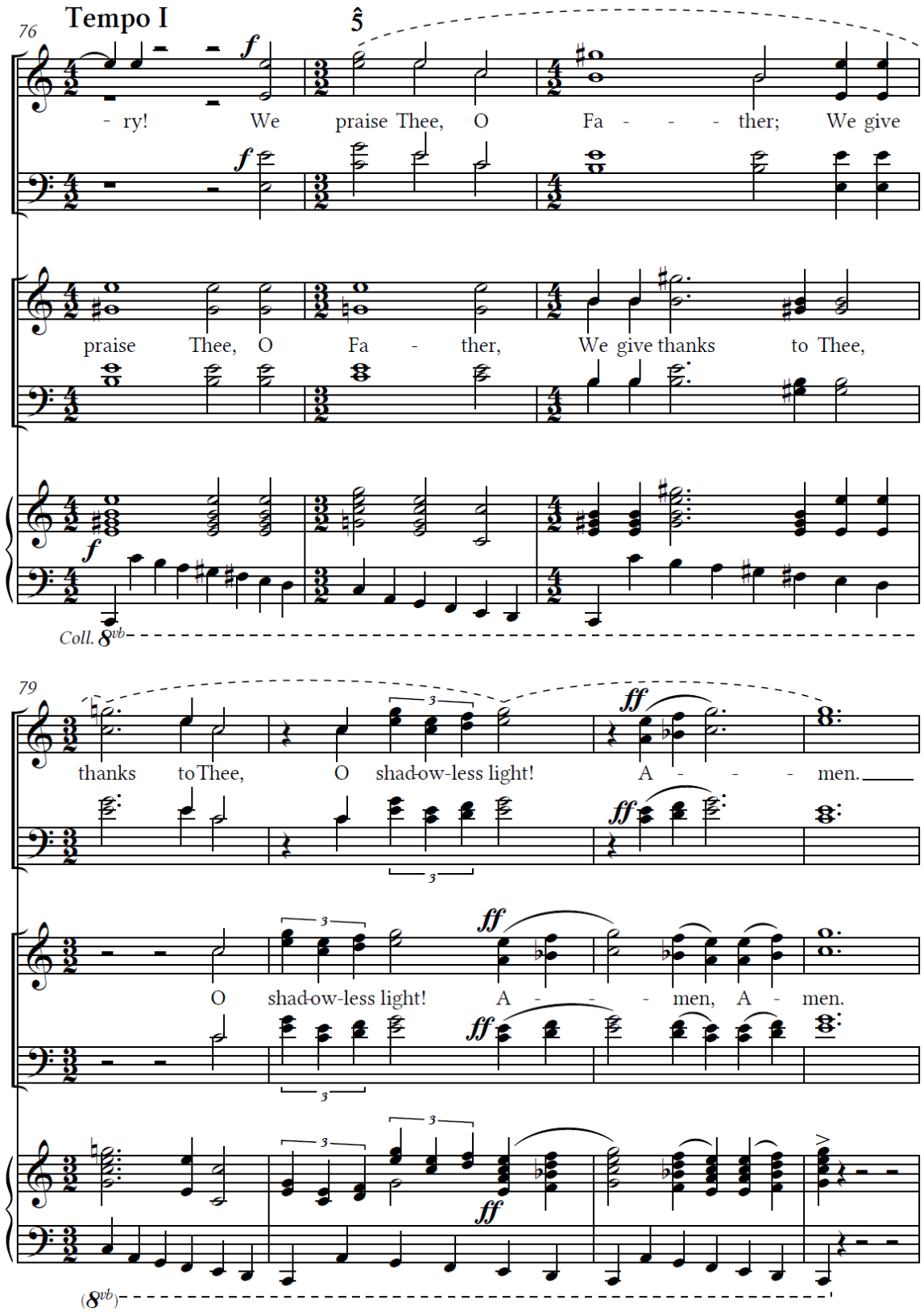
When describing the cadence in measures 306–311 (in example V.3), I pointed out that the harmonies descend stepwise from the dominant in measure 306 until they reach

the tonic in 311. The roots of these harmonies, therefore, comprise another structural linear motion that one would retain at the middleground level. In addition, the soprano line in those measures makes a distinctive leap from G down to A in measure 307, which is equivalent to an ascending step, transferred down an octave. The A returns in measure 309 and then rises to B. This skips up to D, but both magnetism and inertia dictate that B should ascend to C, so we can treat the D as a skip to an upper voice. Both, then, resolve to C at the end of the excerpt (see example V.8).



Example V.8. Holst, *The Hymn of Jesus*, L1 prolongation graph of mm. 306–311.

With E as a significant secondary tonic, the pitch E would be one possibility for a well-supported primary tone, functioning as $\hat{3}$ in C. However, G and G♯ tend to appear more prominently in the beginning of the piece. Since much of the Prelude is in G, it would support G as a primary tone in a lower octave. It could also support D as a neighbor to an E primary tone, but the complete cadences in G would seem to support that pitch more strongly than the D. Another structurally significant passage from the end of the A2 section (theme *f*, measures 76–82) appears in Example V.9. In this passage,

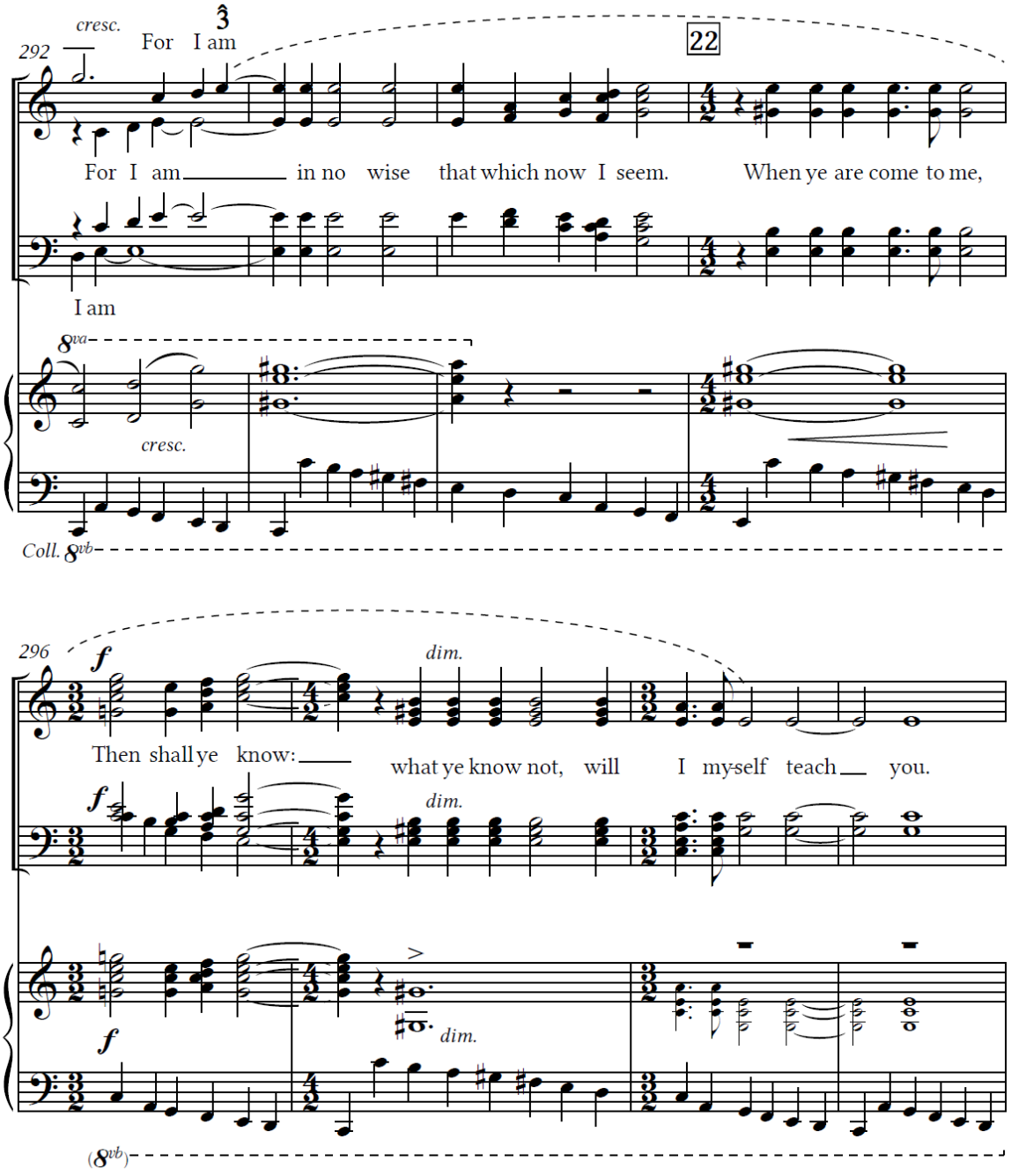


Example V.9. Holst, *The Hymn of Jesus*, mm. 76–82.

E is sufficiently present to function as primary tone with G as a cover tone, but G features much more prominently, especially at the end where the combined choruses rise from E to G on "amen." Later in the piece, E returns in measure 252 but again rises to G in measure 254, this time with an F♯ to strengthen the pull upward.

When theme *f* returns in measures 286–300, E gets more emphasis than G, being coupled in a lower register (see example V.10). If E were the primary tone, this passage would be a reiteration of the primary tone before the structural descent. If G were the primary tone, then the changed emphasis to E could signal a move to $\hat{3}$, which would mean that $\hat{4}$ would have appeared previous to this point in the music. Although F appears at the end of a phrase in measures 279–280, the accompanying harmony is unstable. Measures 269–275 include the cadence and tonic area in F referred to earlier (preceded by the C+G♭ bichord, see example V.3), and so one could hear a structural move from G to F at that point, even though A hovers above it in measure 269's cadential chord. One may, therefore, interpret the structure as either a 3-line or a 5-line, but the early emphasis on G, a possible descent to F in measure 269, and the change of emphasis to E in A2' support the latter interpretation.

Two significant cadential arrivals on C remain where we might find the rest of the background descent. The first appears in measure 311, where middleground stepwise lines in the bass and soprano converge on C in contrary motion. The second appears in measure 335, at the end of A2'. In the latter cadence, D♭ precedes the arrival on C. This D♭ could function as a possible background $\hat{2}$, but it would form an augmented second with the preceding ♮$\hat{3}$, it contradicts the modality of both the piece's conclusion and the other pitches of the background structure, and it comes in a lower

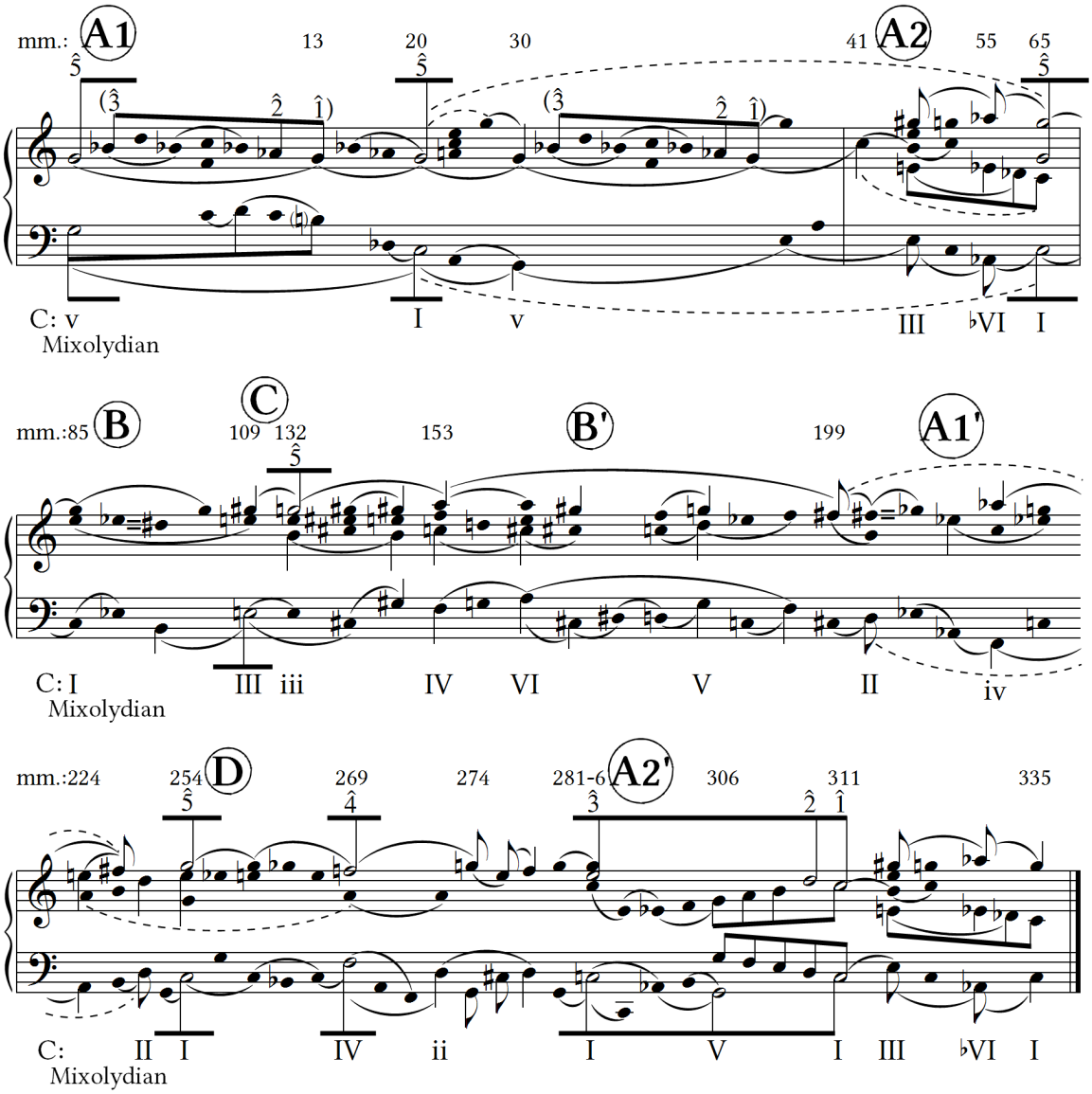


Example V.10. Holst, *The Hymn of Jesus*, mm. 292–299.

register than the primary tone. The cadence in measure 311 does not arrive with a full C-major chord, but does have a D♮ preparing it, and the resolution appears in the

appropriate register. In the foreground, a D-minor chord supports the D, but as I have observed, the D-minor chord prolongs the motion from G-major in measure 306 to the C, so the dominant chord provides harmonic support for the D at the background. By putting the background descent in measures 306–311, the remainder of the A2' section becomes a single prolongation of the final tonic. The section uses a major-third harmonic cycle together with the Phrygian descending line, as I mentioned earlier, and then the chorus floats back up to G in the "amen" passage at the very end.

The A2 and A2' sections, as well as a few passages in the middle sections, feature a high G♯, and its enharmonic equivalent A♭. With G♮ as a primary tone, the G♯ could function in either of two ways: as an upper neighbor tone, or as an inflection of the primary tone similar to mode mixture. One could use harmony to differentiate the two because a modal inflection would tend to be harmonized by the tonic or a tonic substitute (such as VI or III), and an upper neighbor would tend to be harmonized by a different chord. The difference is subtle, however, and the E-major and A♭-minor triads that most often accompany G♯ and A♭ could still fit either description. Although both interpretations are possible, the diatonic modes do not have a sharp inflection of $\hat{5}$, and so for Holst to use one would be to move his deep middleground structure outside of the diatonic modes. The G♯ frequently acts as an upper neighbor by moving back down to G♮, so that is the interpretation I have followed in the graphs. In essence, however, both interpretations reveal the same information about the structure because in both cases the primary tone gets prolonged by moving a half-step up and then eventually stepping back down.



Example V.11. Holst, *The Hymn of Jesus*, L3 prolongation graph.

The complete structure of *The Hymn of Jesus* appears in the L3 graph in example V.11. As one might expect, this piece features more middleground chromatic movement than the *Benedicite*. Diatonic lines do appear in significant places, however, and constitute the deepest parts of the prolongational structure. We can categorize the melodic prolongations of the piece according to the two mode types that have been

most frequently encountered: Phrygian and Mixolydian/Ionian. The Phrygian lines appear at the end of the *Pange Lingua* chant melodies (as well as the echo in measures 17–20), and in the A2 and A2' sections. The G♭ preceding F in measure 269 also forms a Phrygian cadence, but is not part of a complete line.

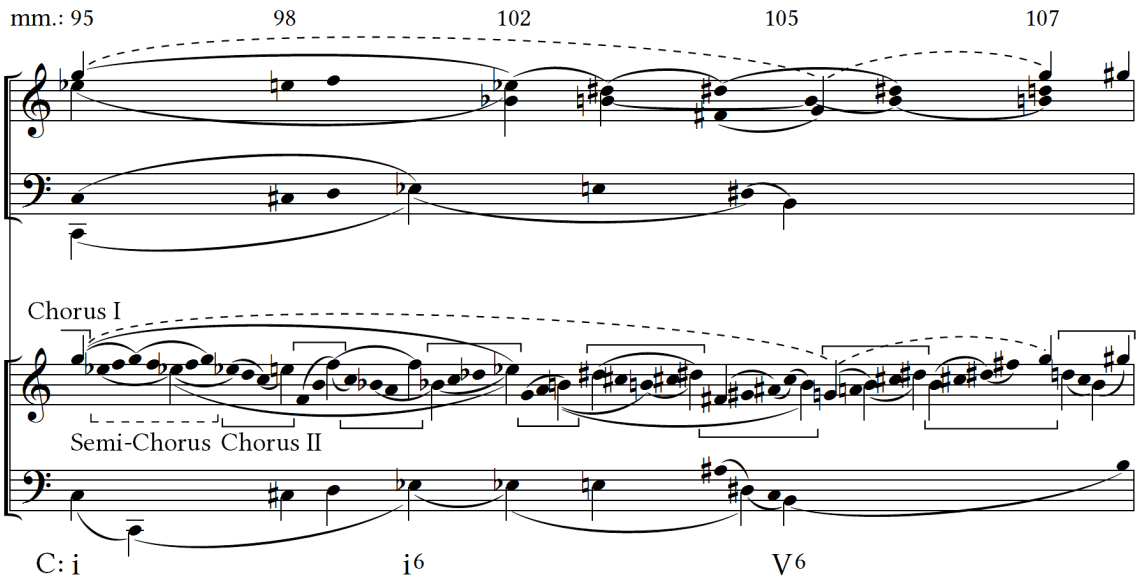
Even though some chromaticism occurs in the deep middleground of the B, C, and B' sections, the bass progression follows the Ionian or Mixolydian mode (there is no structural B or B♭), rising from E to A in the C section, and then descending back to F in the B' section. The bass E in the C section also makes a longer descent to D at the end of B' and then to C in section D. At the same time as this longer bass descent, the alto voice rises stepwise from B in measure 122 to C in measure 152, D in measure 189, and E in measure 252. This E would then join the background F in measure 269. The cadential motion in measures 306–311 also uses Ionian lines moving in contrary motion, and the background stays in the major pentachord common to Ionian and Mixolydian as well. The Ionian/Mixolydian lines thus form the deeper, underlying structures, whereas the Phrygian lines appear more prominently as foreground lines and as a motivic unifying device.

V.5. Structural Patterns

I have already addressed some aspects of the relationship between the form and the deeper structure because of how the harmonies and melodic structures outline the form. Example V.11 shows each of the formal sections along with the L3 graph. The most significant formal characteristic that affects the graphical interpretation is the returning musical material in sections with the same lettering. The A1' section brings

back the chant melodies from A1, but because of the changed harmonic context and truncation of some of the chant appearances, its structural function differs from the Prelude and has been treated as an independent section. The B and B' sections are also sufficiently different to merit independent structural functions. On the other hand, the A2' section brings back much of the same material, including the three third-related tonic areas from theme *e* and the Phrygian descent. The opening A2 section concludes with theme *f*, allowing a loud and bold solidification of the primary tone early in the piece. Theme *f* returns at the beginning of A2', which brings a return of the home tonic area, an emphasis on $\hat{3}$ instead of $\hat{5}$, and allows a structural descent before theme *e* returns and prolongs the concluding tonic. The final "amen" brings back G, but this time as a soft, subdued cover tone that allows the G♯/A♭ to resolve without creating a new structure.

The other large formal sections have relationships with the structure that are less direct than the A2 and A2' sections, but still have important functions for how the piece unfolds. The Prelude (A1) introduces the primary tone as a tonic in a foreign mode before the primary tonic arrives, functioning as a Schenkerian auxiliary cadence. After the primary tone gets established more fully in the A2 section, the B section continues to prolong the primary tone and reintroduces E as a significant harmonic support, this time for both G♯ and G♮. Many of the short and constantly shifting tonics in this section prolong the structural upper voice through inner-voice movement, as one can see in example V.12. The ends of the short melodic lines in this section create chromatic neighbor tones to E♭/D♯ in a structural alto voice, and the bass voice uses a chromatic ascent and diatonic descent to prolong a more basic motion from C to B.



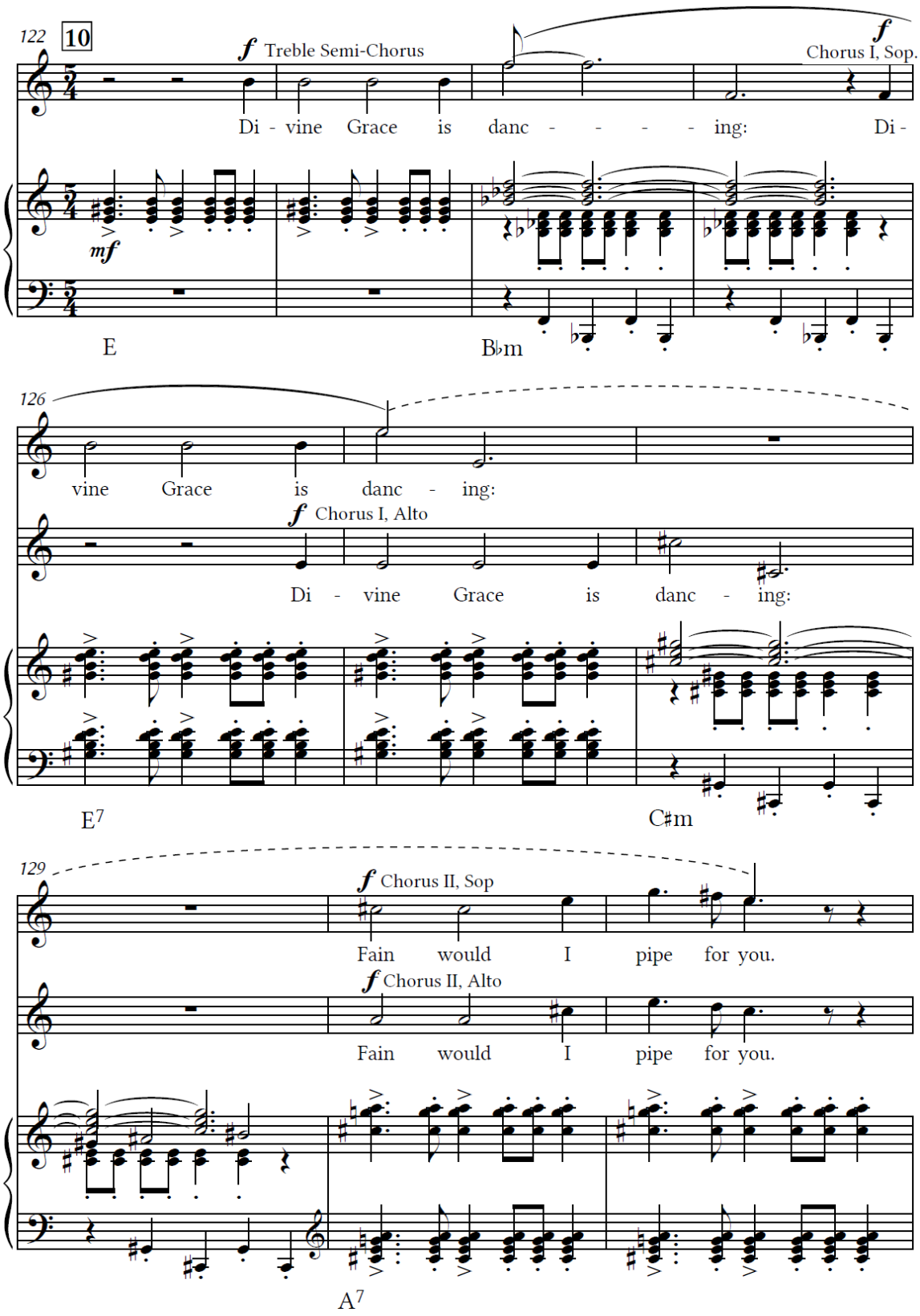
Example V.12. Holst, *The Hymn of Jesus*, L1 and L2 prolongation graphs of mm. 95–107.

Section C reestablishes G♮ over E, but then rises chromatically to A, which descends chromatically to F♯ in B'. B' also includes inner-voice motions similar to B, but they more closely align with the moving pitches of the highest voice. A1' continues the prolongation of F♯, most poignantly at the top of the *Vexilla regis* melody in measures 232–239. A significant A♭ appears in measures 219–221, but it functions enharmonically as an upper neighbor to F♯. The large-scale $\hat{3}$-$\hat{2}$-$\hat{1}$ bass descent stretches across the combined C, B', and A1' sections ($\hat{2}$ appearing most prominently in measures 202–203 and 235–239), concluding simultaneously with the upward resolution of F♯ at the beginning of section D. Section D also contains the first half of the background descent, prolonging the F ($\hat{4}$) with both upper and lower neighbors. As far as the overall structure is concerned, the boundaries between some of the sections blur, especially in

the middle parts of the piece, but one can see in example V.11 that each section still plays an important role in the structure of the piece.

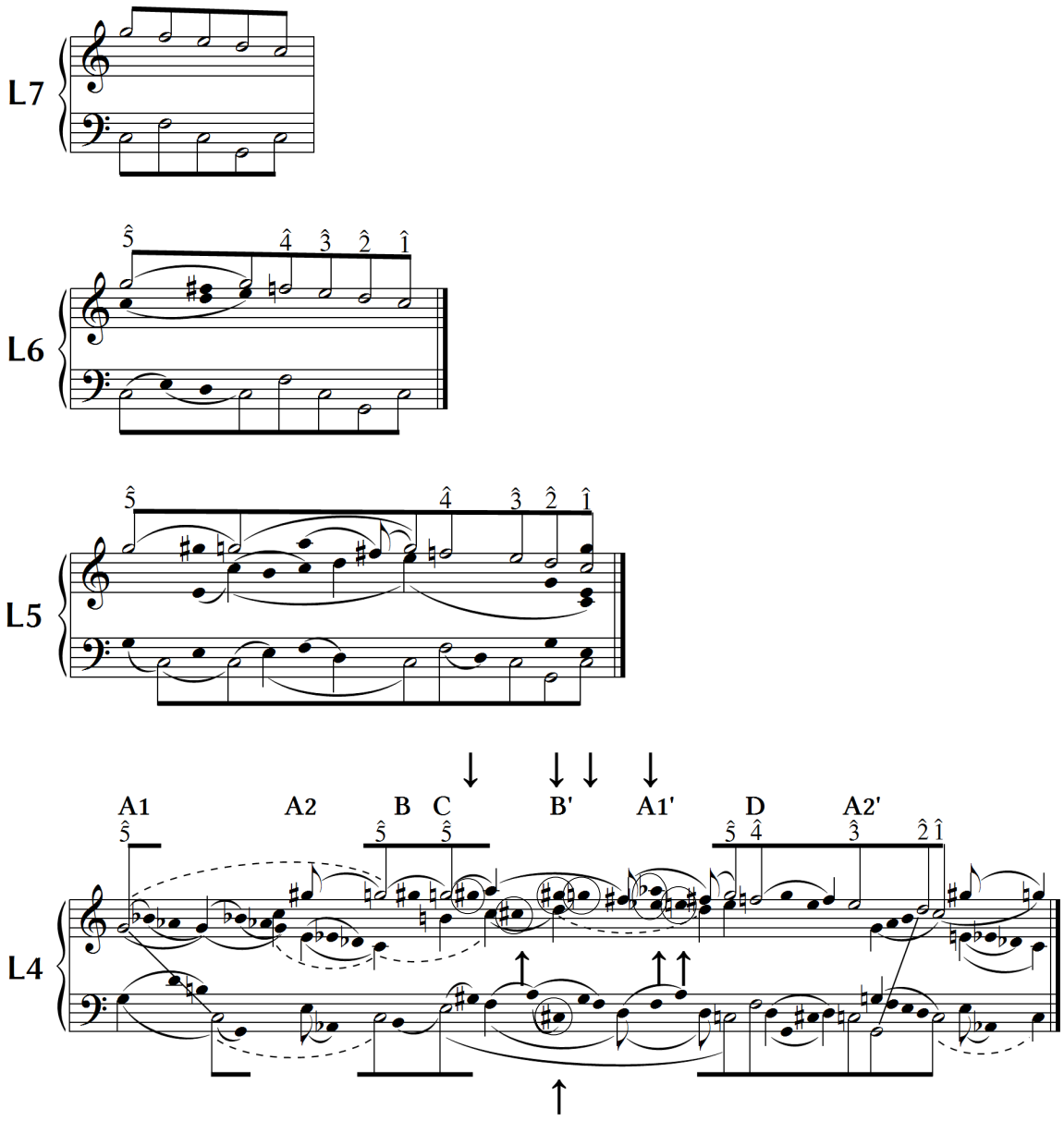
One other set of relationships between form and prolongational structure in this piece concerns Holst's use of harmonically static and mobile blocks. Throughout *The Hymn of Jesus*, Holst often uses static harmony in the foreground but mobile harmony at the next level. We can find one example of this in the major-third cycle in theme *e*, where each tonic chord—E-major, A♭-minor, and C-major—has a repeating scale in the bass that sustains it, and is therefore harmonically static at that level. At a deeper level, each tonic area represents a single element of a harmonic progression, and the whole passage is therefore harmonically mobile. Another example comes from measures 122—131, the beginning of section C (example V.13). In this passage, each harmony remains static for two measures (in most of the piece, the length of individual harmonies varies considerably), but the combined result is mobile harmony with chord changes every two measures.

As one can see from the many shifting tonics in figure V.1 and the bass progressions in the prolongation graphs (especially example V.11), most of the piece is harmonically mobile at the shallow middleground, and the B, C, and B' sections contain the most frequent harmonic changes. Some smaller passages, such as the beginning of the Prelude and the A2 and A2' sections, become harmonically static again at a deeper middleground level, but the harmonic movement of the background limits the possibilities for middleground harmonic stasis. Still, *The Hymn of Jesus* follows a pattern similar to the *Benedicite* in that harmonic motion and stasis alternate at different structural levels.



Example V.13. Holst, *The Hymn of Jesus*, mm. 122–131.

The remaining prolongation graphs for *The Hymn of Jesus* in example V.14 show that the piece has a much more traditional background structure than might be expected looking at the foreground. Even at these deep levels, however, Holst uses chromatic strategies to prolong the background elements, such as the ♯$\hat{5}$/♭$\hat{6}$ neighbor hovering



Example V.14. Holst, *The Hymn of Jesus*, L4–7 prolongation graphs.

above the outline of an augmented triad in the A2' sections, and the chromatic pitches embellishing diatonic steps in the middle sections (indicated by arrows and circles in the L4 graph). This integration of diatonic structure with chromatic prolongations gives us another possible manifestation of what Holst meant when he referred to the concept of "[enlarging] the scope of a key" (G. Holst 1974, 3) as described earlier.

V.6. Text Portrayal and Religious Meaning

In Daniel Royce Boyer's analysis of *The Hymn of Jesus*, he makes the comment that "Holst's use of harmony is textually and not formally oriented" (Boyer 1969, 66). While it is true that the harmony does not fill the same formal roles that one might expect in a tonal piece, Holst carefully chose harmonies for climactic moments and stable points in the piece that support its deeper prolongational structure. On the other hand, Holst also does orient many of the local harmonies and other surface characteristics to portray text elements. Boyer cites a number of examples of surface word painting, including Holst's use of a highly dissonant sonority on "pierce" in measures 98–99, the upward skips on "dancing" in measures 122–128, the joining together of the previously separated chorus on "All things join in the dance" in measures 155–158, and the moving sixteenth-note accompaniment on "flee" in measures 177–178 (Boyer 1969, 78). He also observes that one may interpret Holst's use of spoken text on "Glory to Thee, Holy Spirit" in measures 69–72 to refer to "mysteries that no musical elements could express" (Boyer 1975, 280).

Other scholars have observed additional examples of text portrayal in *The Hymn of Jesus*. As Raymond Head points out, the alternations between choir I and choir II

may represent the dialog between Christ and his disciple as ritual initiator and initiate (Head 1999, 10). Edward Macan takes text portrayal to a deeper level when he observes that Holst contrasts the more stable harmonic areas (such as the pentatonic ostinati) with unstable dissonances (such as the bichordal sections), suggesting "a conflict of light and darkness, [or] peace and suffering" (Macan 1991, 154). One other surface text portrayal that I would add begins when Holst combines A-major and D♯/E♭-major on "suffer" in measure 277. This harsh bichord softens slightly in measure 279 on "overcome," and then resolves more completely when a triad is reached in measure 283 on "rest."

A number of parallels can also be drawn between the text and structural aspects of the music. Just as the chant texts in the Prelude establish the context of Christ's atonement in preparation for the following Hymn, the G and C tonic areas in the Prelude establish the tonal context for the prolongational structure of the piece. Following the Prelude, the A2 section establishes the primary tone and primary tonic area. This section represents being home tonally, which coincides with the sense of home that might be felt expressing "glory" to the "Father," the Son ("Word"), and the "Holy Spirit." The firmly established primary tone supported by tonic harmony in measure 80 emphasizes the preeminence of God with the descriptor "shadowless light."

Text references to dance, most prominent in the C section, draw connections between dance and the divine that correspond to the relationship between E and the home tonic of C. Just as E comes from the C-major tonic chord, yet supports the primary tone in the middle of the piece, dancing comes from the heavens and is an integral part of worship and the quest for knowledge of divine mysteries. Key points in

the background descent also emphasize the relationship between dancing, worship, and knowledge. Holst sets the background movement to $\hat{4}$ with the word "wise," where "whirled along" (a dance reference) preceded it with the G♭-C bichord. The text at the descent to $\hat{3}$ includes Christ's description of how it is through coming to him that one gains knowledge. Christ therefore, represented here by $\hat{3}$, becomes the heavenly means (as part of C-major) of reaching home. The background line finishes with the return to A2, where the return of the tonic home comes with another set of praises to the Trinity. Many of these text-music connections show characteristics of the text extending to deeper levels of the musical structure.

Like *Benedicite*, the unfolding of the text and its musical parallels show us a process that an individual disciple might go through in the quest for gaining knowledge through Jesus Christ. The disciple begins with a desire to be initiated into the knowledge of Christ's mysteries and salvation, and the process opens with the chant evocation of holy ritual, followed by exclamations of "glory." However, the disciple expresses concerns in the form of "fain would I..." Holst expresses these concerns with meandering harmony and less stable tonic areas. However, Christ resolves each concern one-by-one, and as he does so, the disciple gains some confidence and faith, exemplified by the restoration of a stable pentatonic collection on "mind" in measure 108. Jesus continues to resolve the disciple's concerns in section B', after the emphasis on dancing as a part of gaining knowledge in section C. The connection between dancing and knowledge returns in A1' with the *Pange lingua* melody set with the words "Give ye heed unto my dancing," at which point the disciple begins to see Christ as the

means to overcoming all of the concerns mentioned before. The "victory" mentioned in the *Pange lingua* text becomes more visible (or audible) in this part of the hymn.

The phrase "For yours is the passion of man that I go to endure" turns the attention of the disciple—and the listener—to Jesus and the suffering he would go through for each person. When the *Vexilla regis* melody returns in measure 232, the lack of text may signify an event or vision the disciple sees that must be kept secret. We can surmise, however, that the passage represents Christ having overcome all suffering, and that it celebrates his victory on behalf of the individual. As Raymond Head puts it, "clearly this is a moment of supreme triumph" (Head 1999, 12), which signals the end of seemingly aimless, meandering prolongations and triggers both the transition back to the primary tone, and the eventual background descent and resolution.

After the disciple has beheld Jesus' suffering, the Initiator continues to teach about the connection between the suffering, dancing, and the knowledge that the disciple hopes for, as exemplified in how Holst sets each part of the background line. The initiation ceremony finishes after the phrase "know in me the word of wisdom!" at which point the disciple joins with Christ in crying "Glory to Thee, Father..."

The structure and interpretation put forth in this analysis might be less perceivable than in the *Benedicite*, but one could certainly hear motion toward and away from stable points throughout the piece that have structural significance. The placement of significant words in significant points in the structure emphasizes their meaning whether or not the listener would perceive their structural significance. At that time in his life, Holst showed a sincere interest in Gnosticism and the quest for knowledge, and this piece conveys that interest on multiple analytical and interpretive

levels. The piece also clearly emphasizes the suffering of Christ as a means to overcome challenges and find reprieve from suffering. As Head points out, this would have been a poignant concept for Holst after the death of some close friends during World War I (Head 1999, 7). Along with the many other ideas manifested in *The Hymn of Jesus*, the idea of Christ suffering for the benefit of mankind shows through clearly, not only in the text Holst chose, but also in the way he set it.

CHAPTER VI

CONCLUSION

The primary objective for this dissertation has been to determine structural features of Holst's and Vaughan Williams's sacred choral music using an adaptation of Heinrich Schenker's analytical methodology. By graphing harmonic and melodic prolongation processes in their music, one can identify which characteristics of their music adhere to tonal norms and which characteristics deviate. In addition, one can find relationships between the structure of a composition and its text that show the composers' practices in text setting. The analyses also provide a means of evaluating the analytical tools. In this concluding chapter, I will begin by reviewing the methodology and discussing what the analyses have shown with regards to prolongational analysis of modal music. I will then briefly compare the two analyses in chapters IV and V, after which I will summarize the results and discuss which stylistic features conform to or deviate from those in tonal music. Finally, I will conclude by discussing opportunities for additional research.

VI.1. The Methodology

The analytical method defined here provides an initial connecting link between traditional Schenkerian techniques and more recent developments in post-tonal prolongation analysis. Once a context for determining stability in a particular musical style has been established, the analyst can proceed to develop hierarchies and prolongations in a manner very similar to Schenker's analyses. For many musical styles, including that of Holst and Vaughan Williams, that context starts with the

metrical, formal, and repetitive emphasis of particular pitches or pitch patterns. Relationships between emphasized pitches then help determine a tonic and contribute to perceptions of harmonic and melodic stability. Formal patterns can also provide a framework for understanding how those relationships unfold over the course of the piece.

For Holst's and Vaughan Williams's music, one typically finds local tonics or pitch-class centers, as well as the overall tonic, at the beginning and/or ending of melodic and harmonic streams. The endings—often involving a cadence of some kind—have an especially important role because of how each functions as a resolution for the preceding musical passage. Repetition also contributes to a particular pitch's centricity. Stable harmonies often accompany tonic pitches, and harmonic root relationships can help support a tonic if they function as members of the tonic chord or in motions toward tonic chord tones.

The harmonic relationships that support a given tonic are usually connected with the context for vertical stability. In Holst's and Vaughan Williams's music, triads normally serve as the basic, stable harmonic unit. Non-triadic sonorities may be stable at the surface, but at deeper levels of structure they either reduce to triads or fill a secondary role. Other styles of music may differ, but as Väisälä has pointed out (2004), one can use the overtone series as a means of determining relative harmonic stability in many centric post-tonal styles.

For melodic stability, as long as melodies are based on a system incorporating mostly stepwise motion and skips that generally adhere to the extant harmony, one can use traditional methods to determine melodic structure. I have shown that for modal

music, Larson's metaphorical forces and the melodic patterns that they create are a viable means of determining middleground and background expectations. Modal music must also have characteristic scale degrees in order to define each mode, so structural melodic patterns may have these scale degrees either working with or against those patterns governed by the musical forces. Stability factors related to the establishment of tonic and harmonic stability, as well as formal patterns, can help determine priority among conflicting melodic progressions. For other styles, melodic prolongation patterns may differ, and so one must also rely on contextual emphasis.

Repetition is one of the primary formal patterns that governs the relationship between form and prolongational structure. Generally, sections of music that have formal links will also have functional links in the structure. The more exact the repetition, the more exact the functional link will be. One can easily extend this to other styles of music that involve repetition, but for styles that do not, one must determine if any other formal features would affect the analysis. Once centricity, stability criteria, and formal relationships have been established, one can use these factors to determine the hierarchies among pitches and the ways that the piece uses them in its prolongations.

VI.2. Comparing the Analyses

I already addressed some comparative issues in chapter V, regarding the arpeggiations in Vaughan Williams's *Benedicite*, its areas of middleground harmonic stasis, and the middleground chromaticism and harmonic motion in Holst's *The Hymn of Jesus*. The *Benedicite* uses mostly modal diatonicism and triadic harmonies, but still

includes a number of other harmonies and pitch collections that are not typical of nineteenth-century music. Historically forbidden parallel fifths and octaves occur at all levels of the music except the background, and the background and middleground structures follow the formal design very closely. The structure, form, and harmonic design all have ties to the text that help convey the Christian message in a variety of ways. The *Hymn of Jesus*, on the other hand, uses frequent chromatic chord changes and while it does use diatonic modes, the modes change frequently along with the harmonies. Holst also uses a much wider variety of harmonic constructions and pitch collections. Parallels occur, such as between the root and soprano in measures 310–311 (see example V.3, p. 212), but they are neither as frequent nor as prominent as those in the *Benedicite*. Holst's form and prolongational structure follow the text, but the form of the text is not as tightly organized as the text Vaughan Williams uses, and so the relationship between the text form and the musical form is not as strong or as distinct.

As I mentioned in the opening chapter, the differences between these two pieces may or may not be indicative of differences between the two composers' styles in general, but can represent two different sides of what might be either composer's style. Further research would be necessary to determine any prolongational strategies and structural characteristics that distinguish Holst's music from that of Vaughan Williams.

VI.3. Summary of Stylistic Features

The Hymn of Jesus and the *Benedicite* both use diatonic background structures that could appear in tonal music just as well as in modal music. However, they also both use modal structures in the middleground levels. This is symptomatic of the

relationship between the three modal pitch domains identified by Bates: pitch class center, pitch content, and mode type (2009, 58). From the standpoint of prolongational analysis, the tonic of a piece or an excerpt is the most significant domain, where a change of tonic means a change of goal and therefore a change of structural function. A composer may use mode type and pitch collection more freely as strategies for embellishing the tonic.

Holst and Vaughan Williams frequently used different modal inflections of the background pitches as a means of prolonging those pitches: a tonic would remain constant while the mode and collection above it changed. This occurred most often in the background and middleground, but less often in the foreground. The second possibility involves a change of tonic and mode within a single pitch collection (typically a diatonic collection), which occurs somewhat frequently, as seen in the conflict between B and D as tonics throughout the *Benedicite*, and the shift from B to D in *The Hymn of Jesus* when the *Vexilla regis* melody returns in measures 232–239. Occasionally, they would also retain a specific mode and change the tonic and pitch collection, as Vaughan Williams did in *O, Clap Your Hands*, but this occurs less often than the other strategies.

Holst's and Vaughan Williams's use of a single diatonic collection for extended musical passages sometimes yields segments where the tonic is difficult or impossible to determine, resulting in temporary pandiatonicism. Pandiatonic segments may present a conflict between tonic possibilities or may simply transition between two tonics. Either way, these passages are only rarely acentric because the composers usually emphasize a particular tonic pitch eventually.

With regards to harmonic progressions and hierarchies, Holst and Vaughan Williams most often used either the dominant or subtonic as a tonicizer, whether or not the chord contains the characteristic, mode-defining scale degree(s). Other chords that may function as tonicizers according to Bates's theory, such as IV in Dorian or II in Lydian (2009, 12), often function as local embellishments of a deeper V-I or VII-I progression. Holst and Vaughan Williams treat major and minor triads as the harmonic norm, using triadic harmony at points of arrival and stability. They seemed to treat tertian extensions and other tones added to triads as important, but less-structural pitches added to a more-stable triadic base.[46] Some of these and other non-triadic harmonies (like quartal chords) may function as stable sonorities in the foreground and middleground, but prolong triads at deeper structural levels. The composers also used bichords occasionally, but treated one part as more stable, and the other as an embellishment of it.

The counterpoint used by Holst and Vaughan Williams includes both dependent and independent part-writing. As I've already indicated, parallel fifths and octaves appear frequently in both the foreground and the middleground. Contrary and oblique motion also appear frequently, so in order to determine the type of motion to expect at deeper levels of structure, one must rely on the counterpoint evident on the musical surface and stability factors in the formal, harmonic, and melodic structures.

Holst's and Vaughan Williams's melodies have many characteristics similar to tonal melodies, which contributes to the traditional middleground and background features. The melodies move stepwise as a norm, and skips tend to occur between

46. Although Holst and Vaughan Williams may not have done so consciously, their favoring of triads may stem in part from the psychoacoustic favoring of overtone-series harmonies, as indicated by Lerdahl (1999) and Väisälä (2002).

pitches that belong to the extant harmony. Nonharmonic skips may result from incomplete neighbors that resolve to harmonic pitches, or from cyclic bass or harmonic progressions that function as a prolongational connective without outlining a single harmony. In addition, their melodies tend to follow linear motions that give in to Larson's musical forces, although exceptions often occur in order to emphasize modal scale degrees or for text-related purposes. Determining melodic structure, therefore, requires establishing stability using harmony, rhythm, and phrasing, in addition to factors directly related to linear motion. Each musical domain influences perceptions of stability in the other domains, and their interactions are a large part of what makes a piece—and an understanding of its prolongational structure—so interesting.

In their sacred choral music, Holst's and Vaughan Williams's forms generally follow formal features inherent in the text. One may delineate text sections through content or meaning, formal structure, semantic structure, or repetition, and the degree of separation between sections may vary considerably. Holst and Vaughan Williams use these aspects of their texts as cues for their formal structures, with more starkly separated musical sections generally reflecting more significant text breaks, but with some variance in their exactness.

One significant aspect of Holst's and Vaughan Williams's formal designs can be explained using Macan's concept of harmonically static and mobile blocks (Macan 1991, 1993). These blocks not only appear as surface phrases or formal sections, but they also appear in deeper levels of structure. One of the more noteworthy observations made through graphical analysis of these piece is that these blocks tend to alternate at each prolongational level. Surface-level harmonic motion frequently prolongs a single

element at the middleground, creating a longer section of harmonic stasis. On the other hand, sections of music that are harmonically static at the foreground often combine with other static sections to form harmonically mobile passages at the middleground. The same process may repeat at subsequent levels, providing a balance between stability and instability.

Holst and Vaughan Williams used formal designs where repetition played a significant role in their construction. Repetition may appear in the form of a strophic setting of several poetic stanzas, or as a formal rounding where some musical material from early in the piece returns later, often at the end. In strophic settings, the repetitions have the same or at least very similar functions in each verse. Vaughan Williams varied the strophic verses in the *Benedicite*, so their structure differs slightly in the foreground and early middleground, but they fill the same role at deeper middleground and background levels. In rounded forms, the function of the repetition may vary depending on how exact it is: the more exact the repetition, the more likely it is to fill the same structural function. In *The Hymn of Jesus*, theme *e* ("glory", see figure V.1, pp. 194–195) returns at the end exactly as it was at the beginning, so the prolongation graph of the two appearances is the same. On the other hand, the chants return in the middle of the piece in different modes, with some truncation, and with different harmony, so the prolongation graphs differ accordingly. Similar relationships occur with the formal repetitions in Vaughan Williams's *Benedicite*: themes from the beginning return varied somewhat and therefore have an appropriately varied function.

In addition to adhering to a text's formal structure, Holst and Vaughan Williams showed a significant amount of care in how they set their texts. This is especially

poignant in their sacred text setting because of the religious positions they each maintained. Holst never outwardly adhered to Christian beliefs, but his translation and musical setting of the *Hymn of Jesus* text clearly portray Christian ideals. The Gnostic elements in *The Hymn of Jesus*, and the Hindu philosophies that permeate other works and writings, show Holst's open-mindedness in religious matters. Vaughan Williams claimed agnosticism, but set a large number of sacred choral works, and these works show that he was sensitive to Christian beliefs and set liturgical texts in a way that would have connected well with his listeners.

The stylistic features I have discussed help us clarify the relationship Vaughan Williams and Holst had with tonality and post-tonality. Their prolongational strategies seem to adhere closely to tonal norms. Their harmonies vary more widely, and certain types of chords must be treated as stable harmonies that would not be in tonal music, but triads still predominate as the basic harmonic unit. Their melodies use a modality much different from the major/minor key system, but the modality of their melodies changes the background structure only slightly, if at all. Many of their background structures look the same as they would if the pieces were tonal. Their forms are often very innovative, but the prolongational structure still correlates well with the form.

One can also apply knowledge of the composers' text and prolongational strategies to performing, conducting, teaching, and other modes of interpretation, all of which benefit from a more thorough understanding of the music. Knowing the text's form, structure, and the significance it would have had for the composer helps with interpreting individual works, bringing out both local and long-range text relationships, and determining how to treat text repetitions. The prolongational structure also helps

pinpoint significant places in the form and provides a map for voice-leading processes across the middleground and background. Through appropriate performance techniques—such as dynamically emphasizing arrivals, and taking more time on stable harmonies—a conductor and ensemble can contribute to the perceived stability or instability of structural elements. By doing so, they can enhance the feeling of tension or motion through structural lines, and the feeling of resolve at structural arrival points. Relationships between text and structure contribute to an understanding of the overarching message conveyed by the piece.

VI.4. Future Work

In this dissertation, I have deliberately focused on the sacred choral works of Holst and Vaughan Williams because they provide a first step into determining prolongational practices in the works of these composers, and because they generally reside on the conservative side of early twentieth-century post-tonality. Although David Manning has already applied Schenkerian techniques to a few examples of Vaughan Williams's music, it would still be beneficial to extend the analytical technique to more of Holst's and Vaughan Williams's secular choral and instrumental works. Many of the examples that I have used come from a narrow time span (approximately 1917—1930), so studying more of their early and later works could also provide information about how their music developed over the course of their careers.

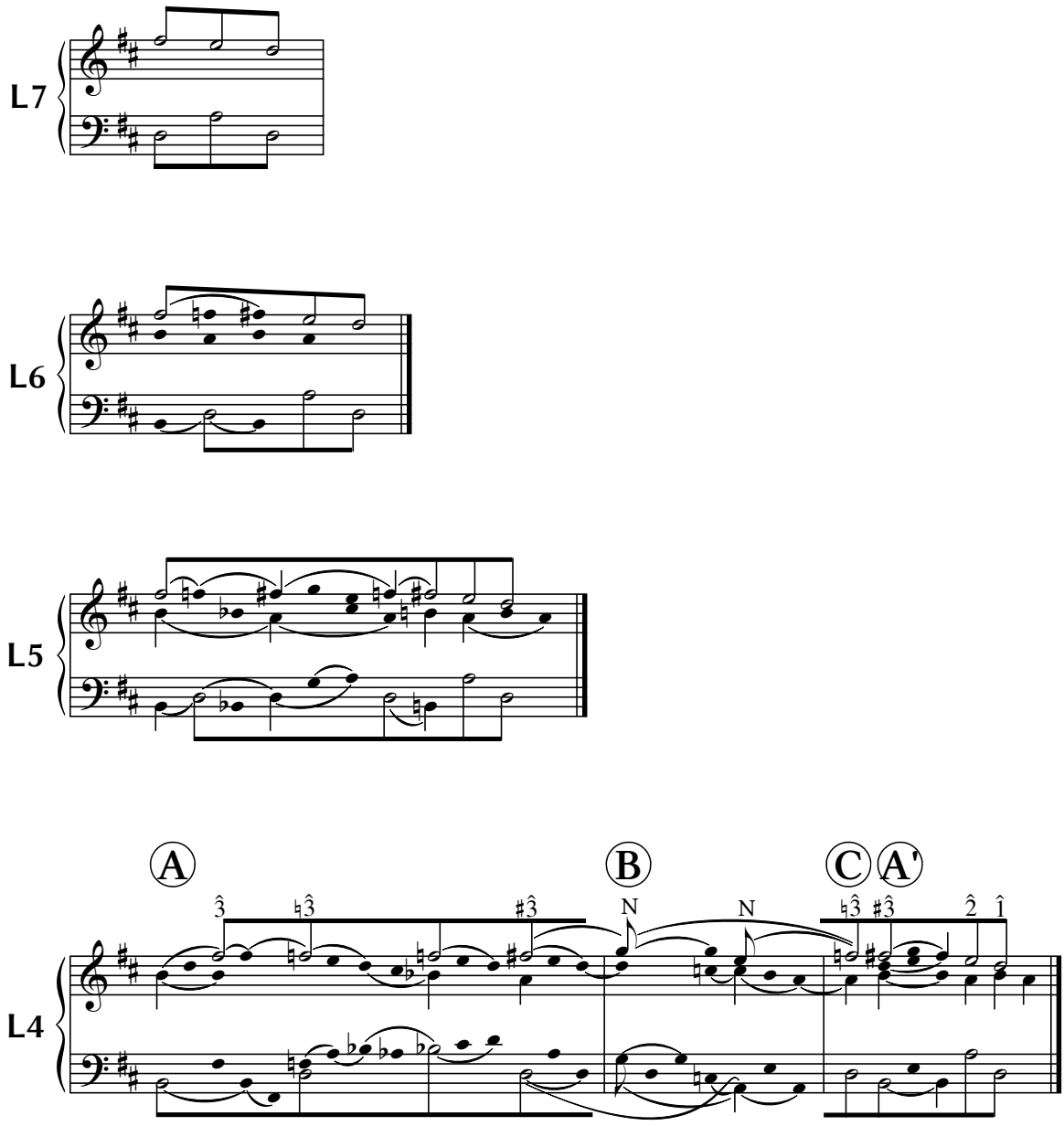
As I have alluded to, one could potentially extend the methodology and analytical criteria established here to the music of other centric post-tonal composers. Centric music will normally have some kind of motion toward or emphasis of the pitch-

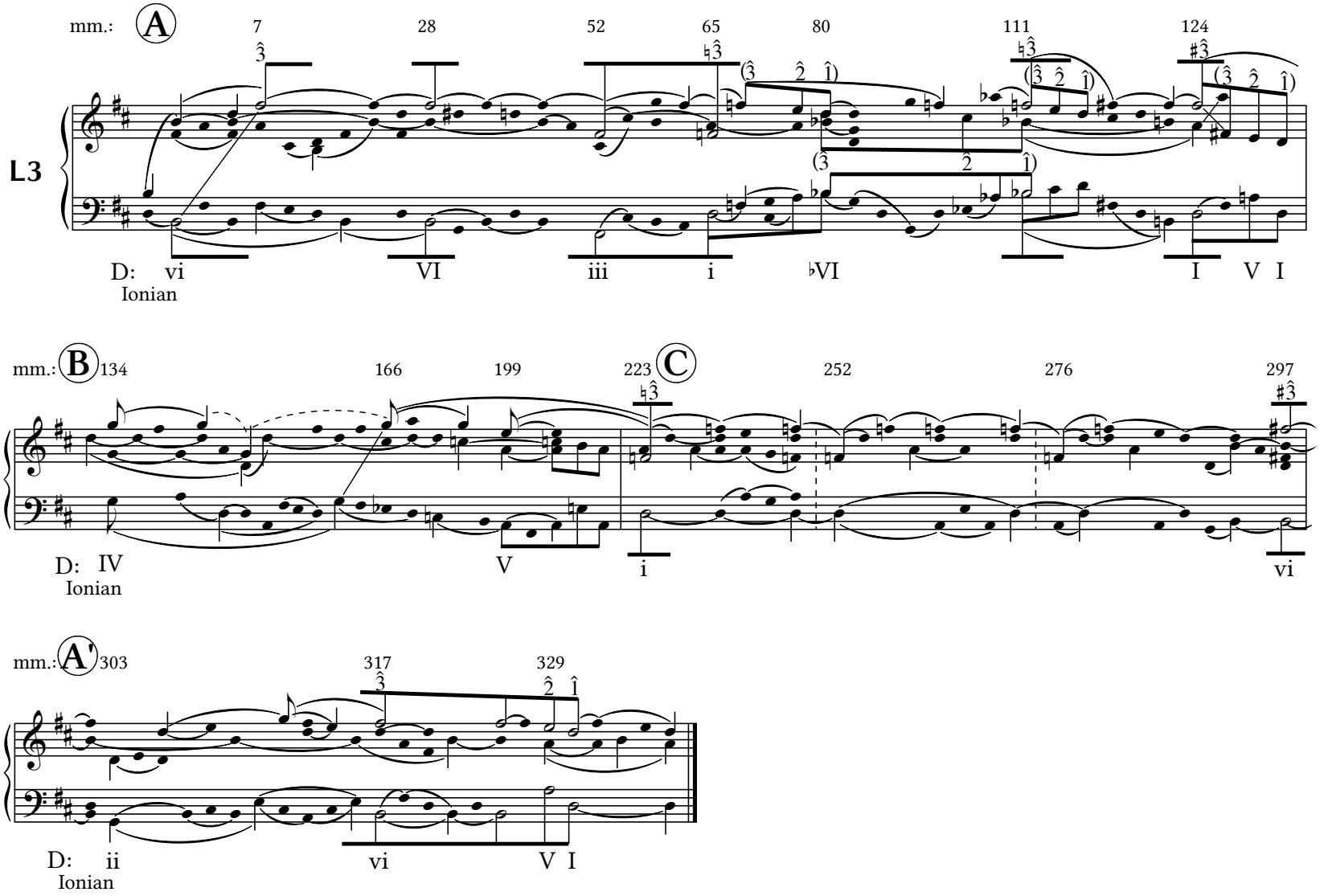
class center, and so the means that a composer uses to establish centricity would provide the initial criteria for determining hierarchies. One could then use the same steps given here to establish prolongational patterns in other styles that bridge tonality and post-tonality, such as the music of Debussy (as begun by Brown and Pomeroy), Ravel, Poulenc, Milhaud, Sibelius, Bartók, Prokofiev, Shostakovich, and even Stravinsky (his middle-period Neo-Classical works would be especially relevant and interesting). Historical connections could also be made with later composers that used some of the same or similar techniques, such as Britten, Hanson, Pärt, Tavener, Rutter, as well as some film and popular media composers. Studies of these wide-ranging music styles will help refine and generalize the methodology, as well as provide insights into how horizontal and vertical hierarchies interact to make the music both interesting and enjoyable.

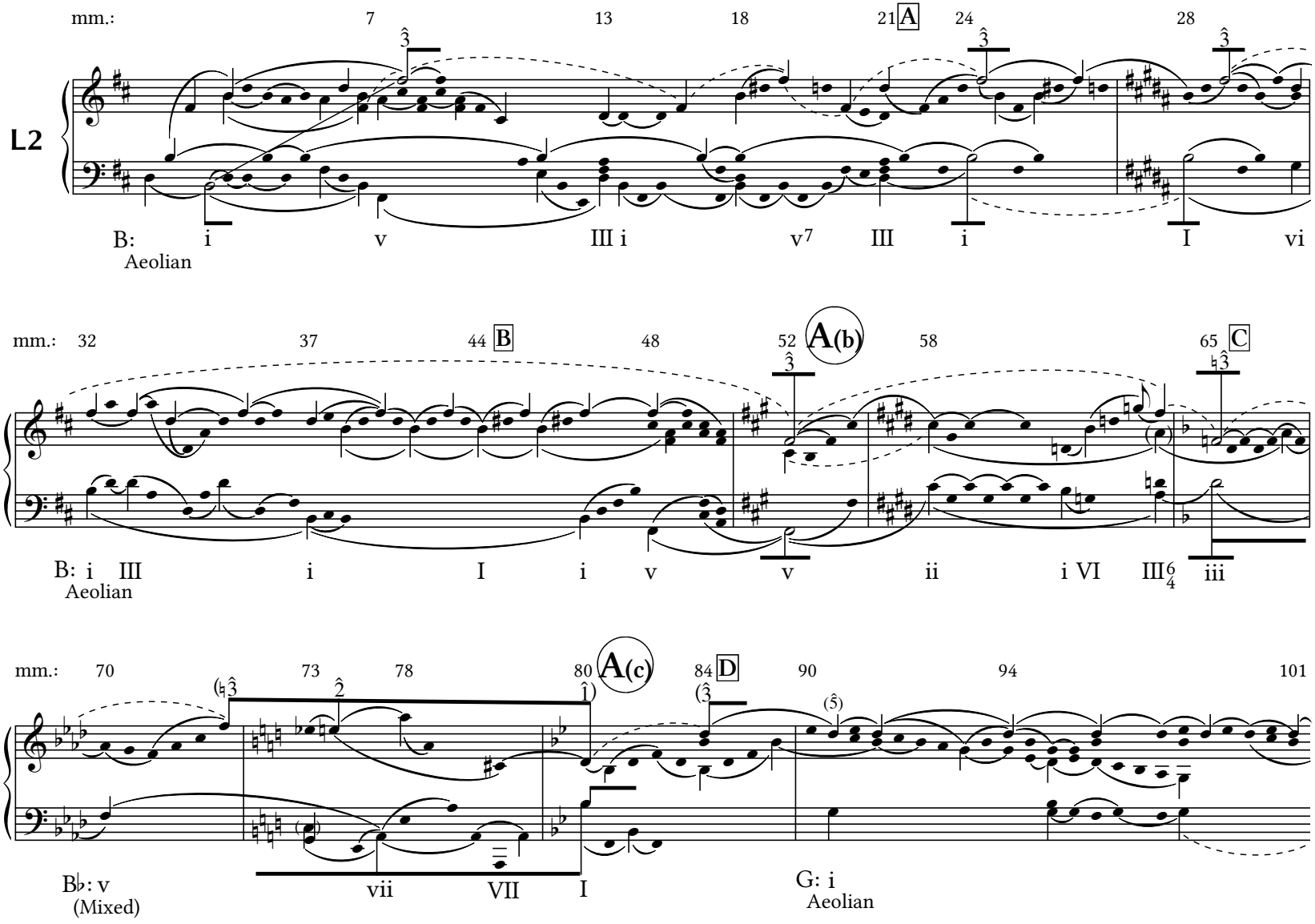
APPENDIX A

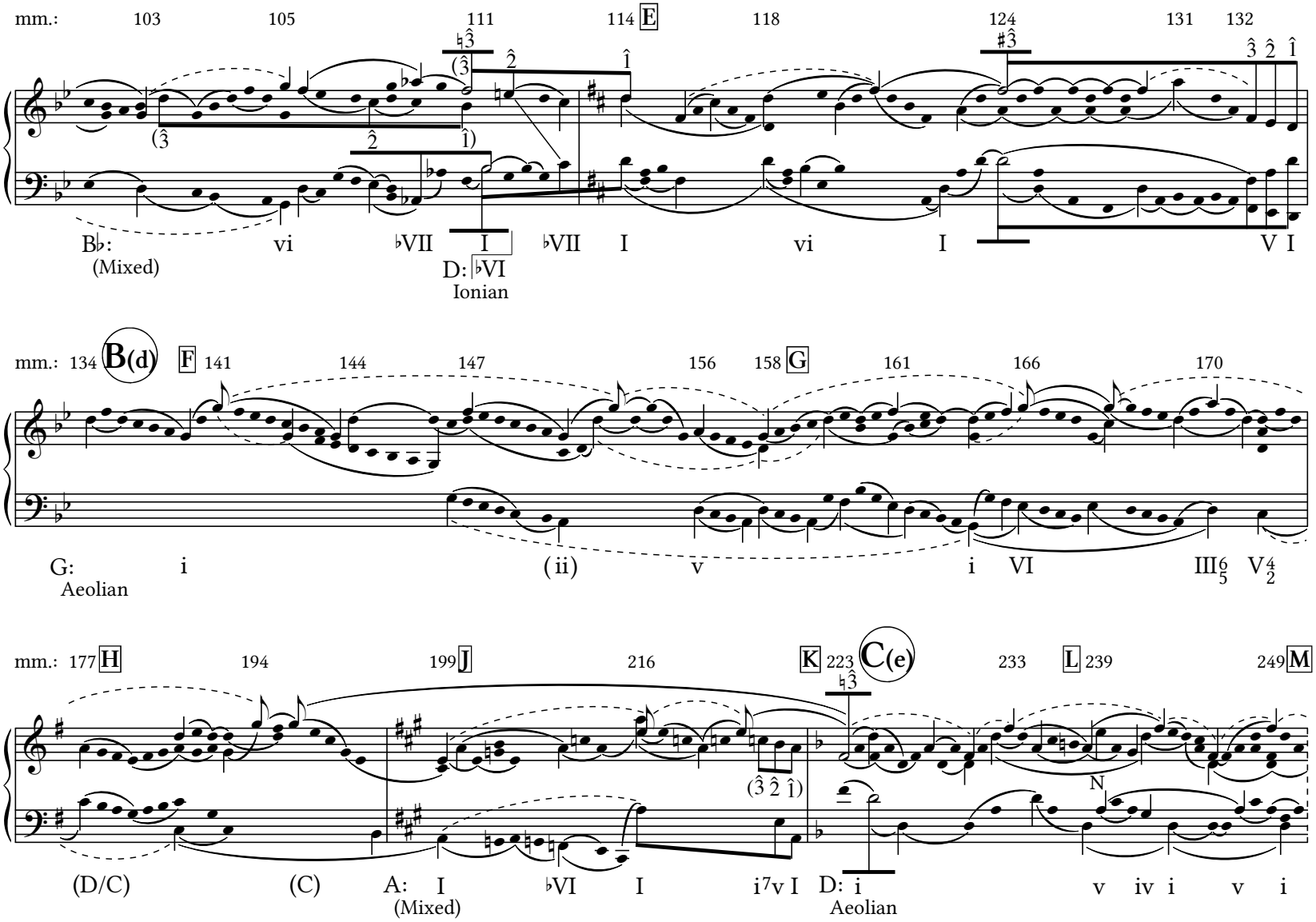
COMPLETE PROLONGATION GRAPHS OF VAUGHAN WILLIAMS'S

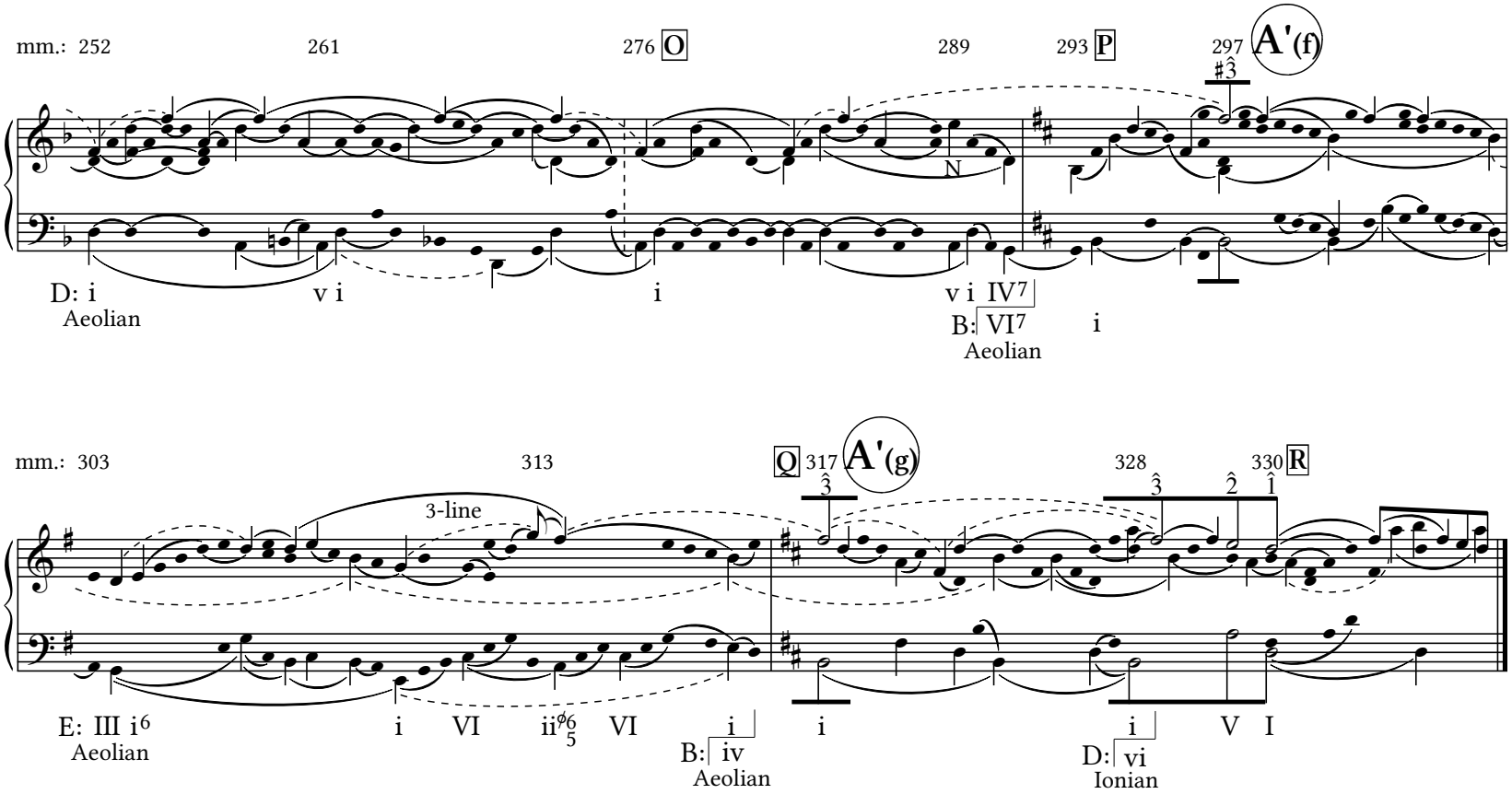
BENEDICITE

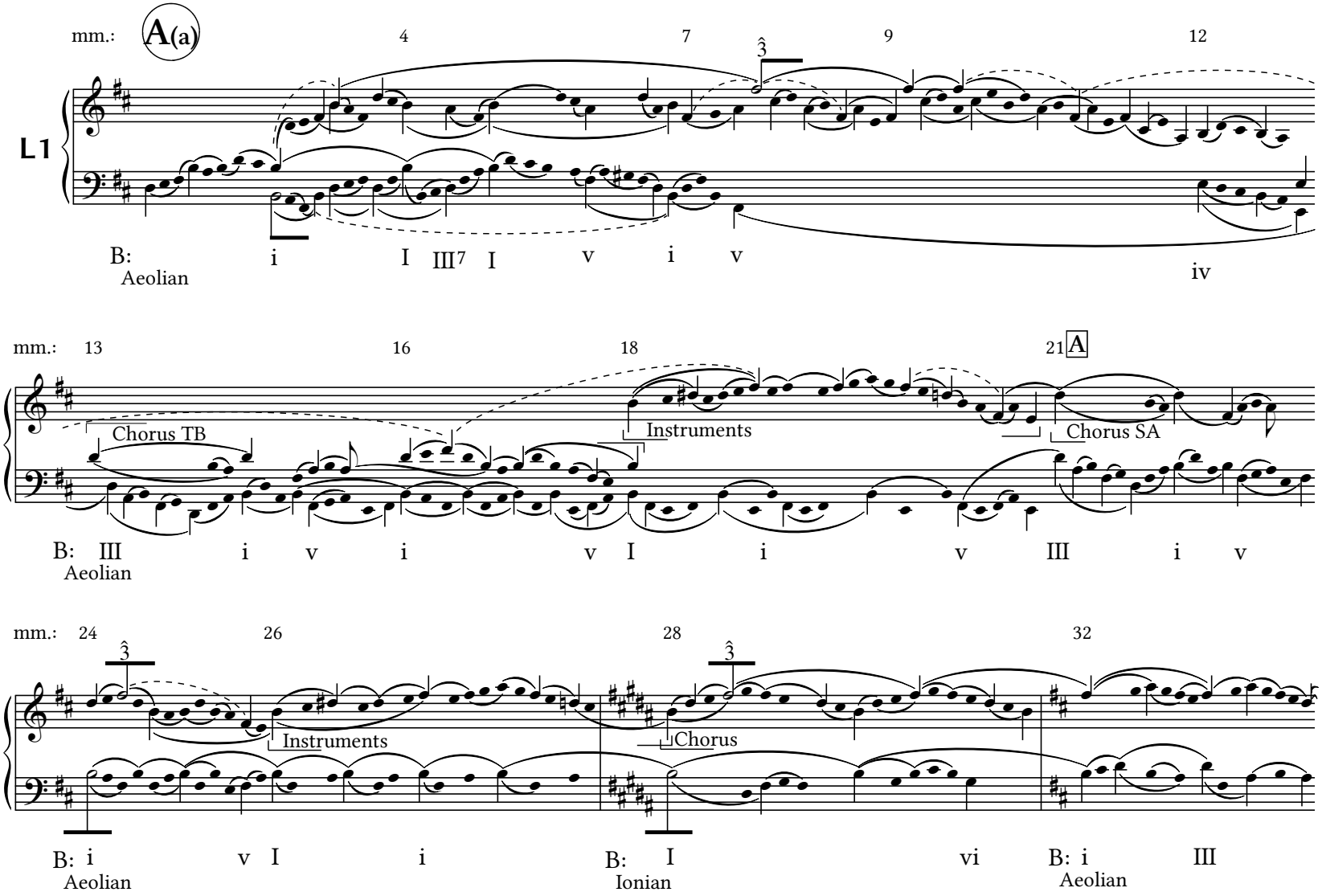


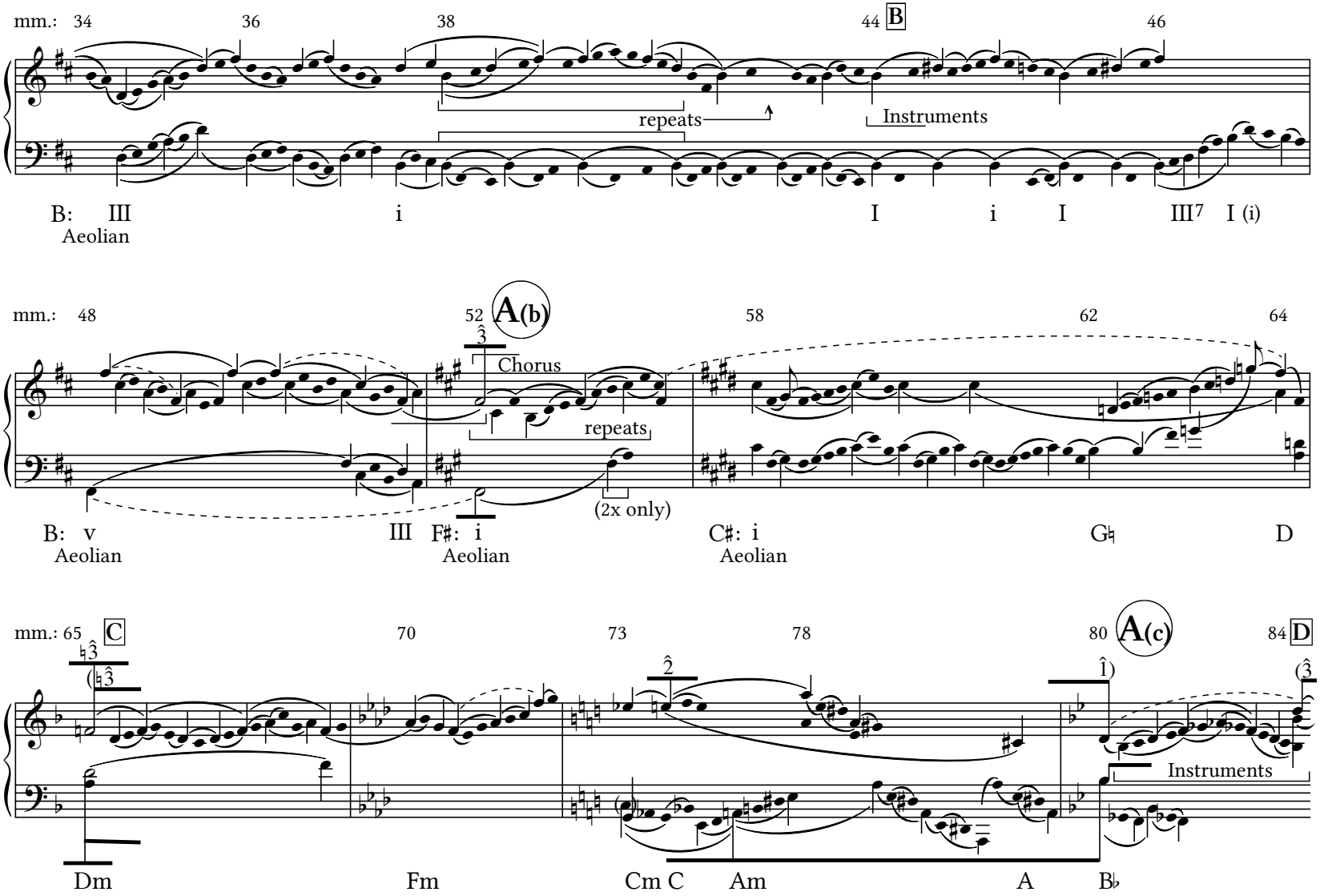

mm.:
A
7
28
52
65
80
111
124
L3
D:
Ionian
vi
VI
iii
i
♭VI
I
V
I
mm.:
B
134
166
199
223
C
252
276
297
D:
Ionian
IV
V
i
vi
mm.:
A'
303
317
329
D:
Ionian
ii
vi
V
I

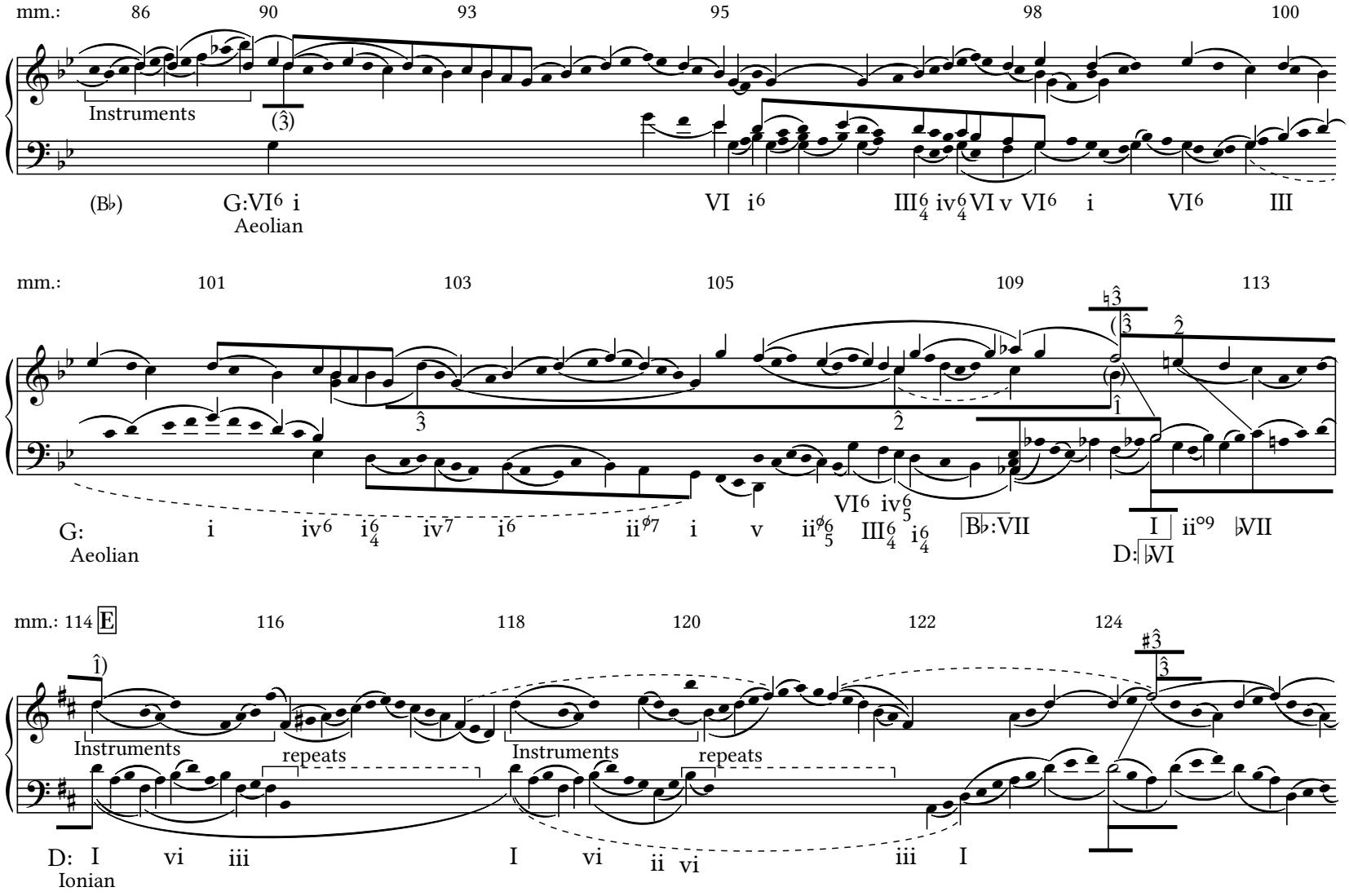

mm.: 7 13 18 21 A 24 28
L2
B: i v III i v7 III i I vi
Aeolian
mm.: 32 37 44 B 48 52 A(b) 58 65 C
B: i III i I i v v ii i VI III6/4 iii
Aeolian
mm.: 70 73 78 80 A(c) 84 D 90 94 101
B♭: v vii VII I
(Mixed)
G: i
Aeolian

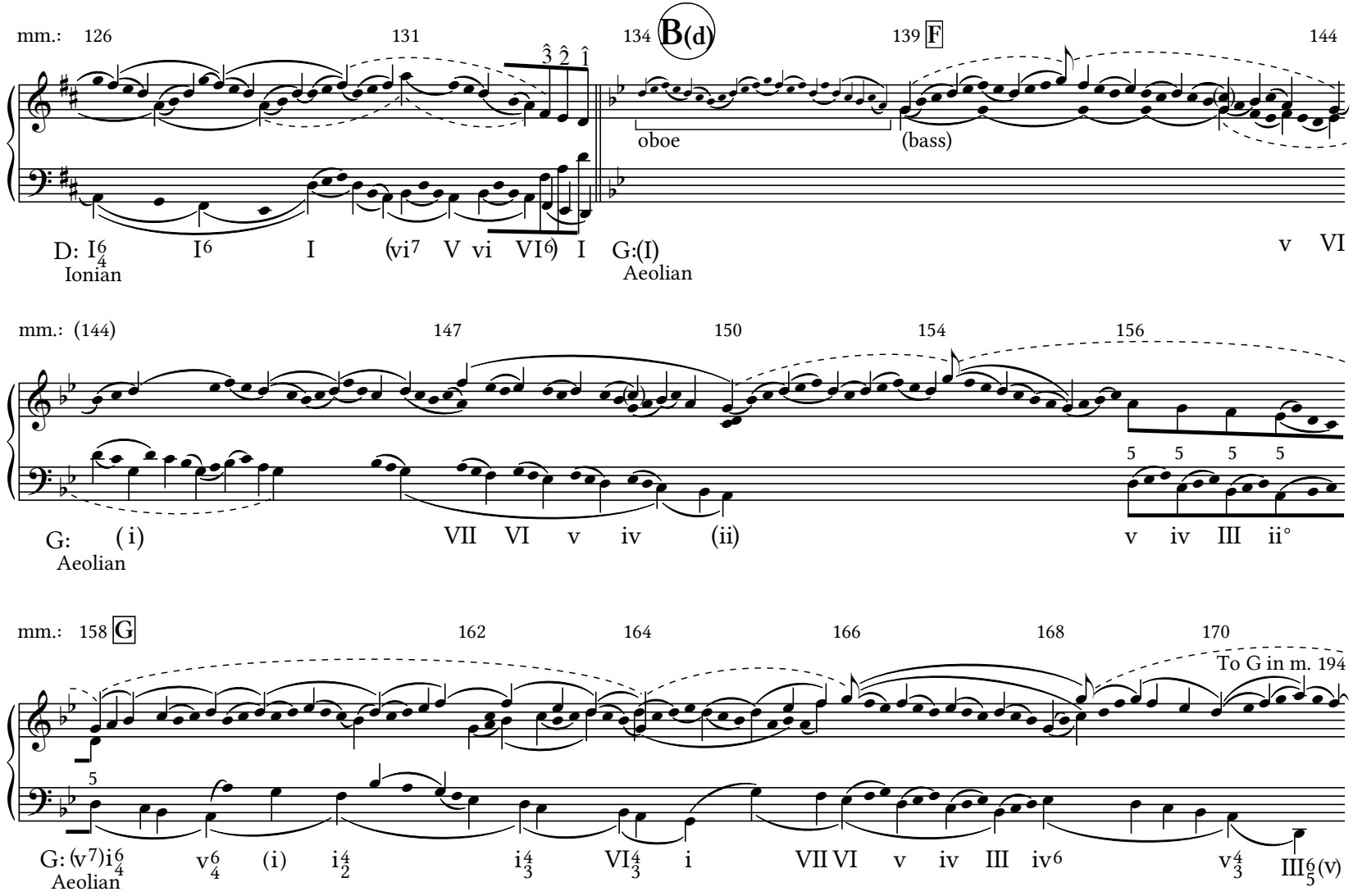

mm.: 103 105 111 114 E 118 124 131 132
B♭: vi ♭VII I ♭VII I vi I V I
(Mixed)
D: ♭VI
Ionian
mm.: 134 B(d) F 141 144 147 156 158 G 161 166 170
G: i (ii) v i VI III6/5 V4/2
Aeolian
mm.: 177 H 194 199 J 216 K 223 C(e) 233 L 239 249 M
(D/C) (C) A: I ♭VI I i7v I D: i v iv i v i
(Mixed)
Aeolian
N

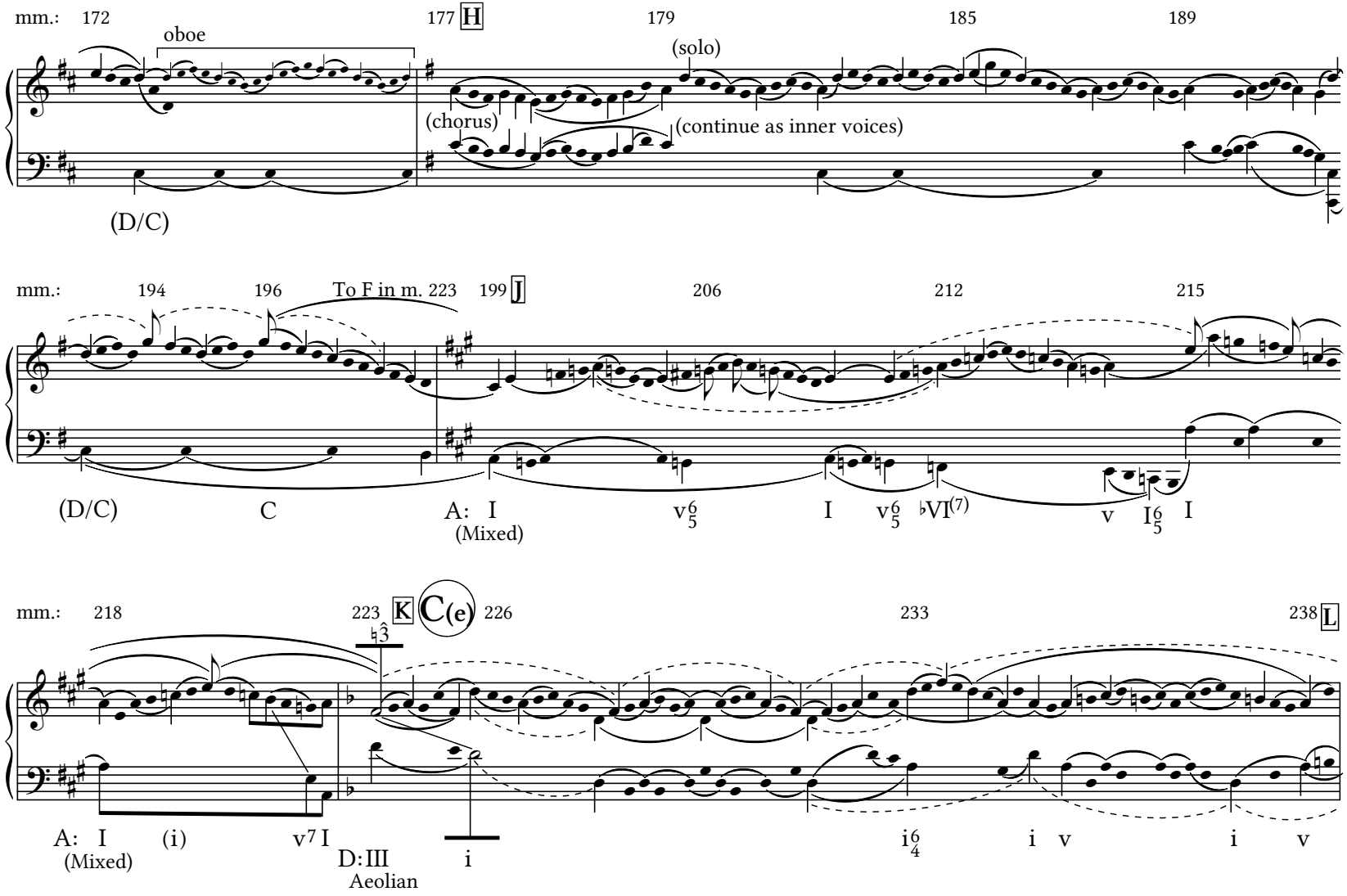

mm.: 252
261
276 O
289
293 P
297 A'(f)
#3̂
N
D: i
Aeolian
v i
i
v i IV7
B: VI7
Aeolian
i
mm.: 303
313
Q 317 A'(g)
328
330 R
3̂
3̂
2̂
1̂
3-line
E: III i6
Aeolian
i
VI
ii°6/5
VI
B: iv
Aeolian
i
i
D: vi
Ionian
i
V
I

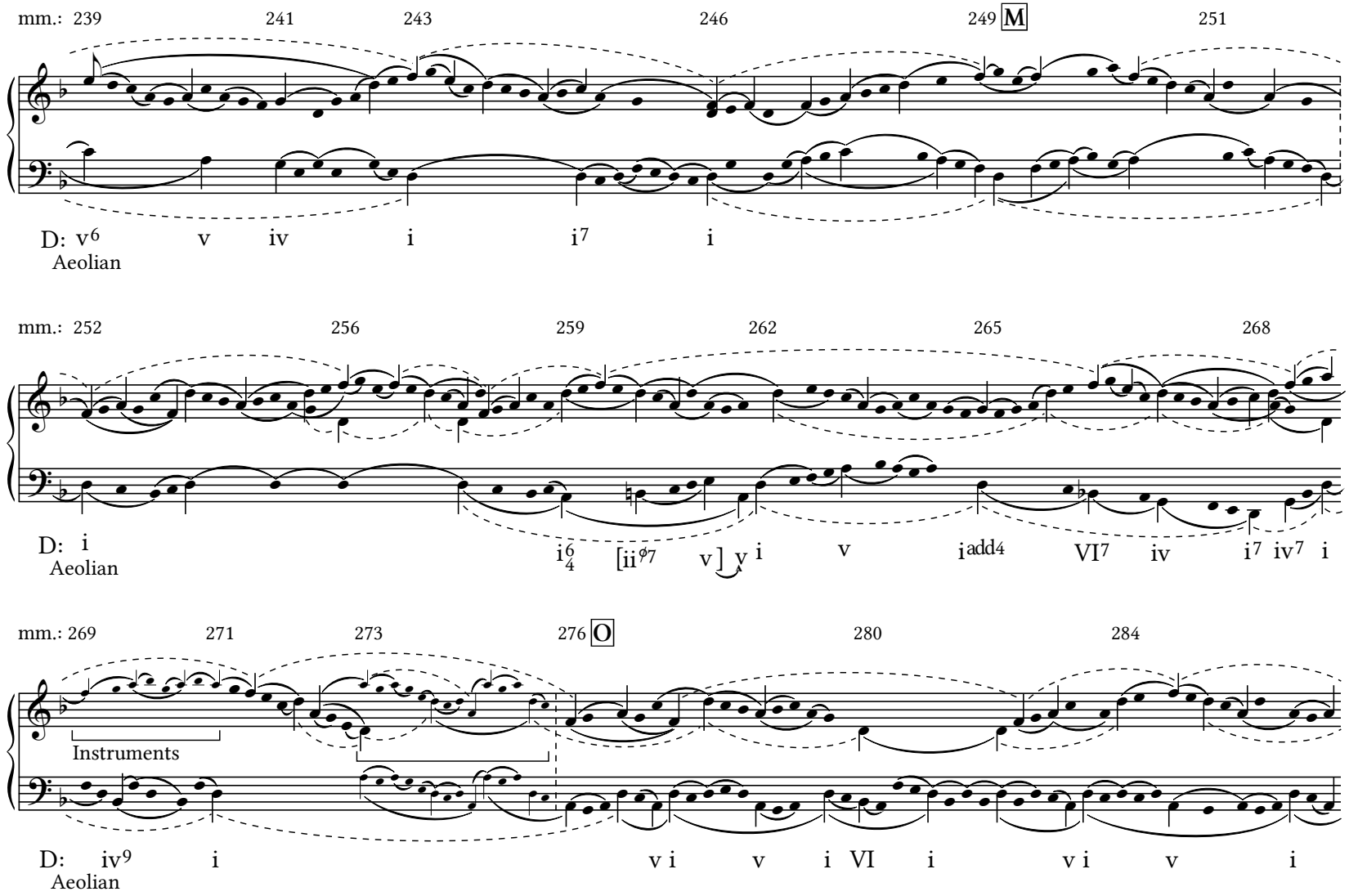

mm.:
A(a)
4
7
9
12
L1
B:
Aeolian
i
I
III7
I
v
i
v
iv
mm.:
13
16
18
21
A
Chorus TB
Instruments
Chorus SA
B:
Aeolian
III
i
v
i
v
I
i
v
III
i
v
mm.:
24
26
28
32
Instruments
Chorus
B:
Aeolian
i
v
I
i
B:
Ionian
I
vi
B:
Aeolian
i
III

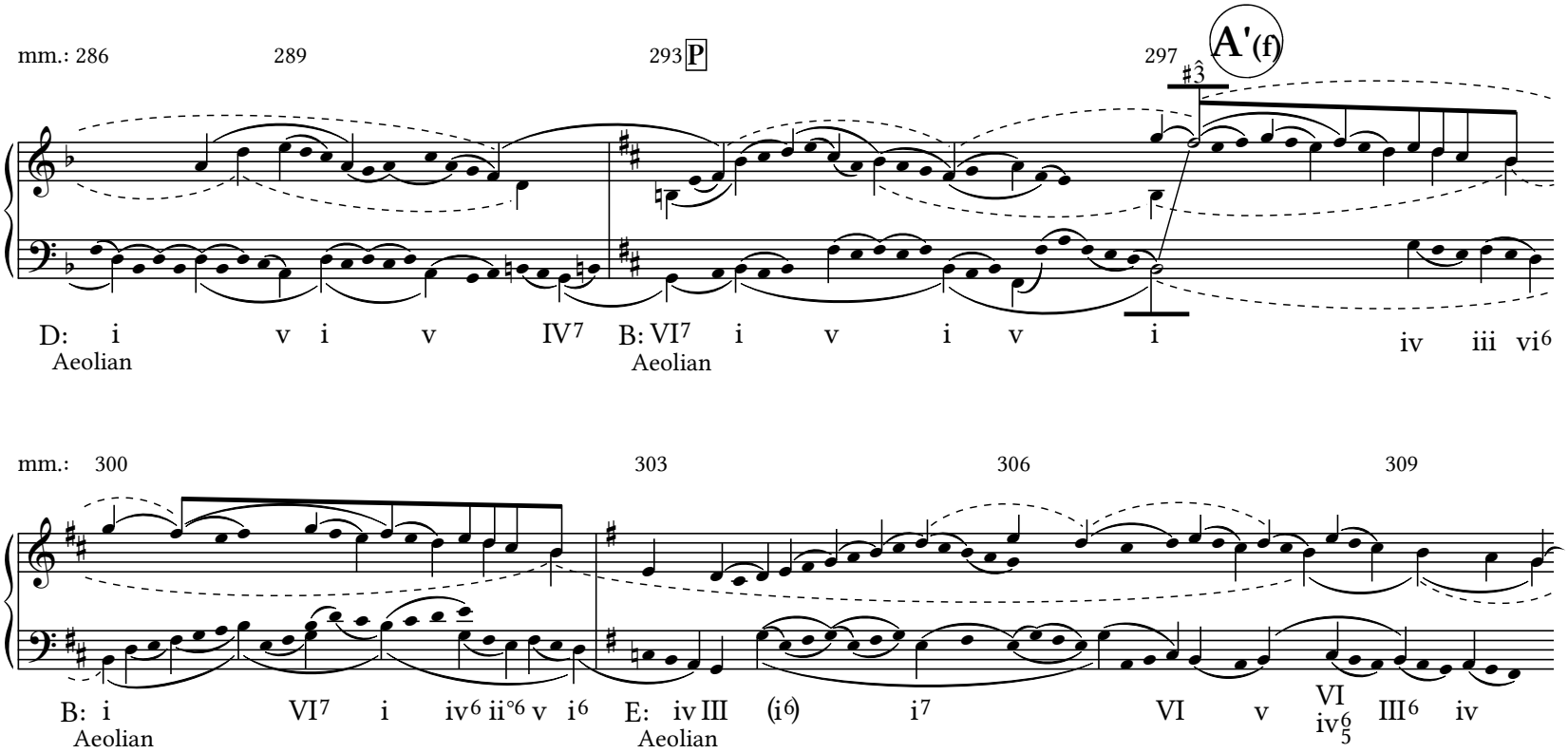

mm.: 34
36
38
44 B
46
repeats
Instruments
B: III i I i I III7 I (i)
Aeolian
mm.: 48
52 A(b)
58
62
64
Chorus
repeats
(2x only)
B: v III F♯: i C♯: i G♮ D
Aeolian
Aeolian
Aeolian
mm.: 65 C
70
73
78
80 A(c)
84 D
Instruments
Dm Fm Cm C Am A B♭

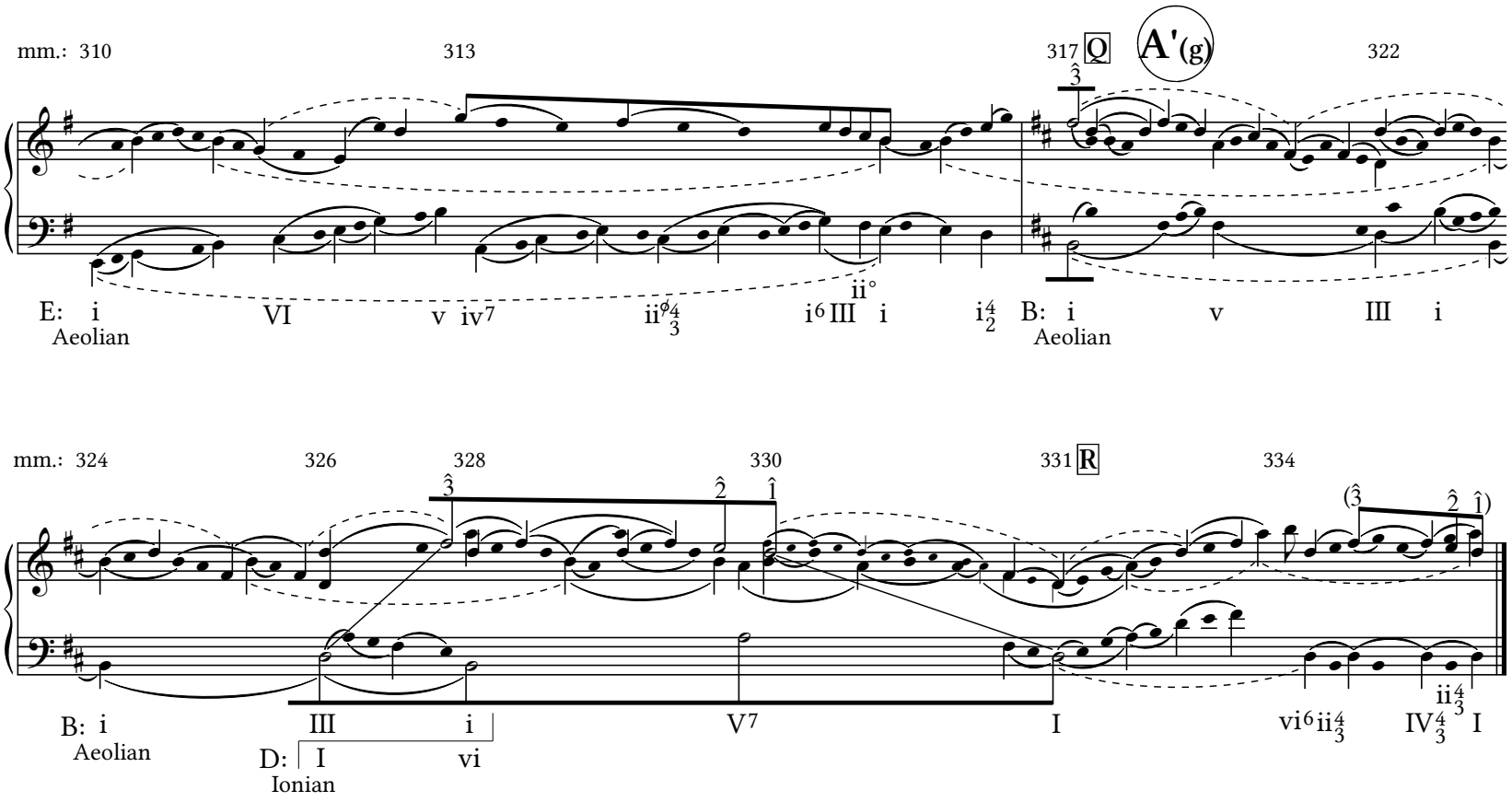

mm.: 86 90 93 95 98 100
Instruments
(B♭) G:VI6 i VI i6 III6 iv6 VI v VI6 i VI6 III
Aeolian
mm.: 101 103 105 109 113
G: i iv6 i6 iv7 i6 iiø7 i v iiø6 III6 i6 B♭:VII I iio9 ♭VII
Aeolian
D: ♭VI
mm.: 114 E 116 118 120 122 124
Instruments repeats Instruments repeats
D: I vi iii I vi ii vi iii I
Ionian


mm.: 126
131
134
B(d)
139
F
144
oboe
(bass)
D: I6/4 I6 I (vi7 V vi VI6) I G:(I) v VI
Ionian
Aeolian
mm.: (144)
147
150
154
156
5 5 5 5
G: (i) VII VI v iv (ii) v iv III ii°
Aeolian
mm.: 158
G
162
164
166
168
170
To G in m. 194
5
G: (v7)i6/4 v6/4 (i) i4/2 i4/3 VI4/3 i VII VI v iv III iv6 v4/3 III6/5(v)
Aeolian


mm.: 172
177 H
179
185
189
oboe
(solo)
(chorus)
(continue as inner voices)
(D/C)
mm.: 194
196
To F in m. 223
199 J
206
212
215
(D/C)
C
A: I
(Mixed)
v6/5
I
v6/5
♭VI(7)
v
I6/5
I
mm.: 218
223 K
C(e)
226
233
238 L
A: I
(Mixed)
(i)
v7
I
D: III
Aeolian
i
i6/4
i
v
i
v

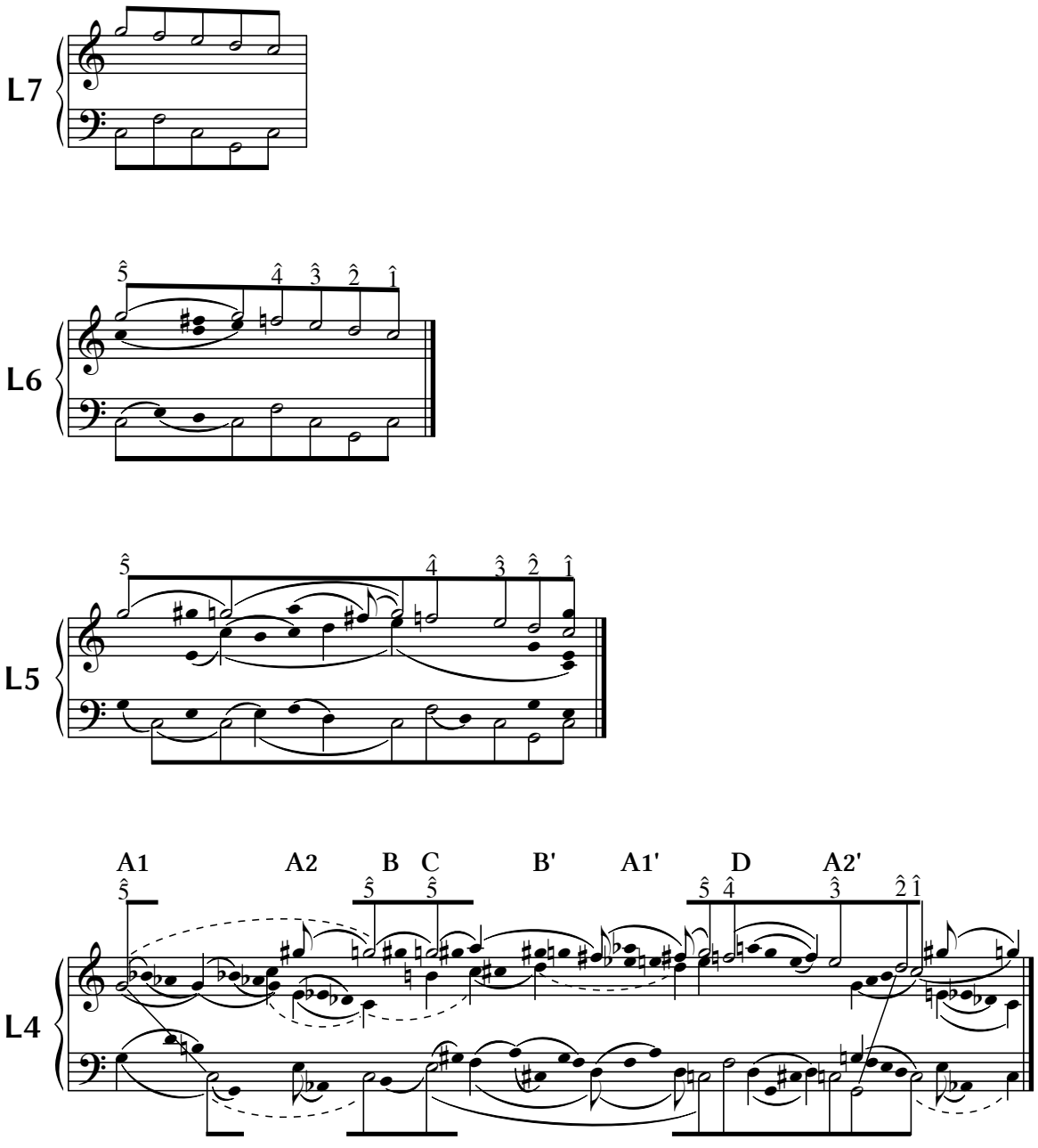

mm.: 239
241
243
246
249 M
251
D: v6 v iv i i7 i
Aeolian
mm.: 252
256
259
262
265
268
D: i
Aeolian
i6/4 [ii ø7 v] v i v iadd4 VI7 iv i7 iv7 i
mm.: 269
271
273
276 O
280
284
Instruments
D: iv9 i v i v i VI i v i v i
Aeolian

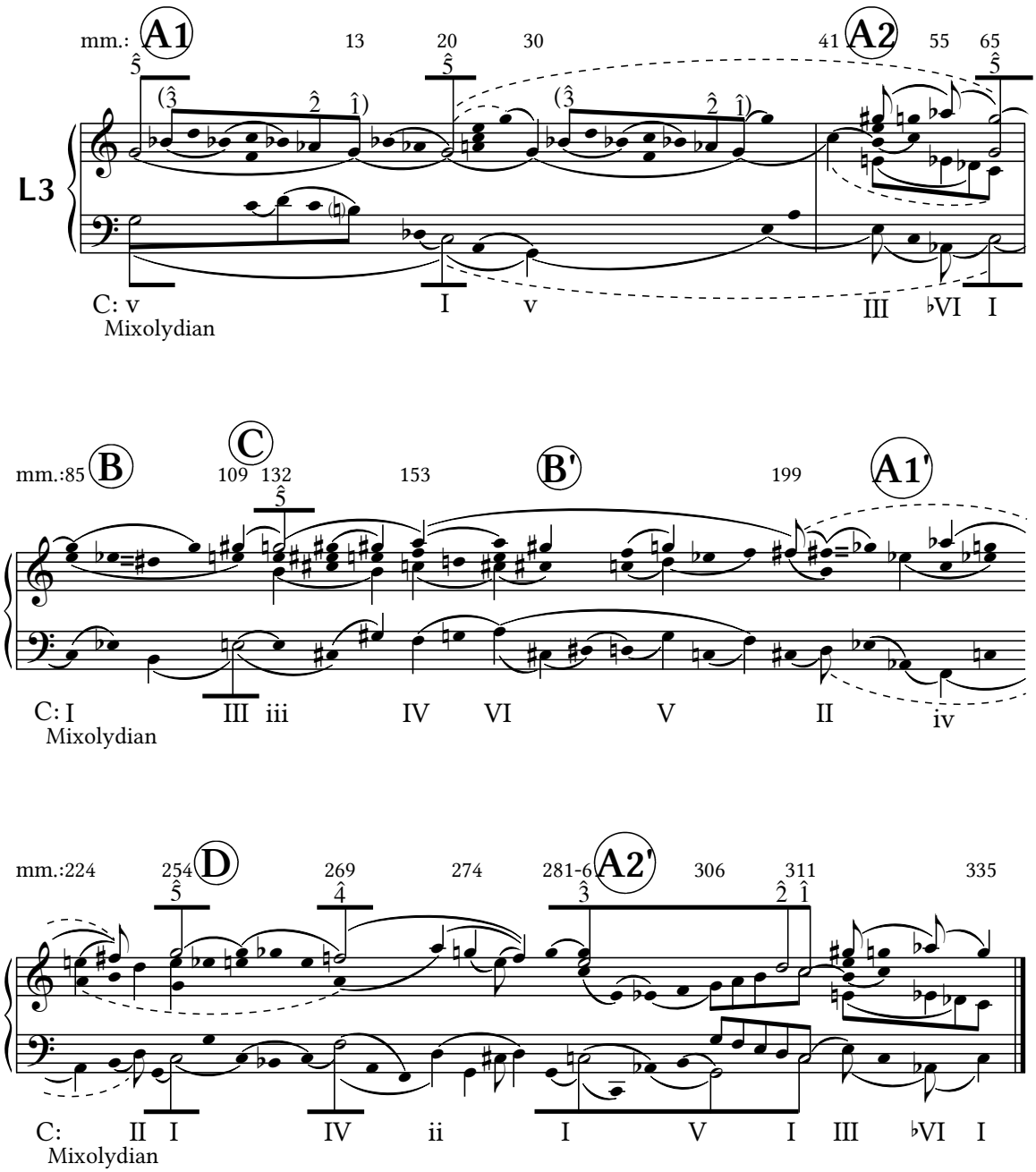

mm.: 286
289
293 P
297
A'(f)
#3̂
D: i v i v IV7
Aeolian
B: VI7 i v i v i iv iii vi6
Aeolian
mm.: 300
303
306
309
B: i VI7 i iv6 ii°6 v i6
Aeolian
E: iv III (i6) i7 VI v VI iv6/5 III6 iv
Aeolian

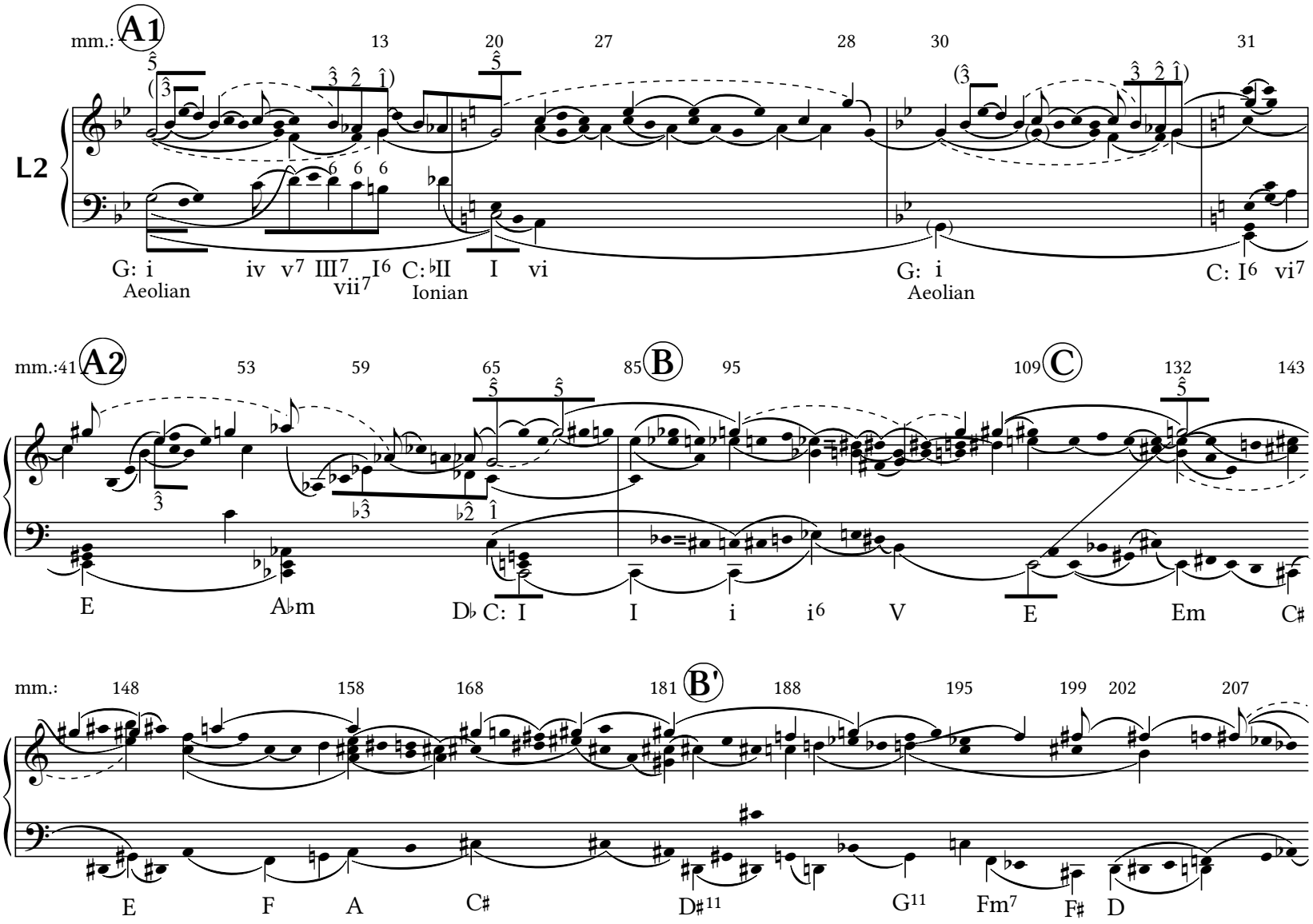

mm.: 310
313
317
Q
A'(g)
322
E: i
Aeolian
VI
v iv7
ii°ø43
i6
III
i
i42
B: i
Aeolian
v
III
i
mm.: 324
326
328
330
331
R
334
B: i
Aeolian
III
i
D: I
Ionian
vi
V7
I
vi6
ii43
IV43
I

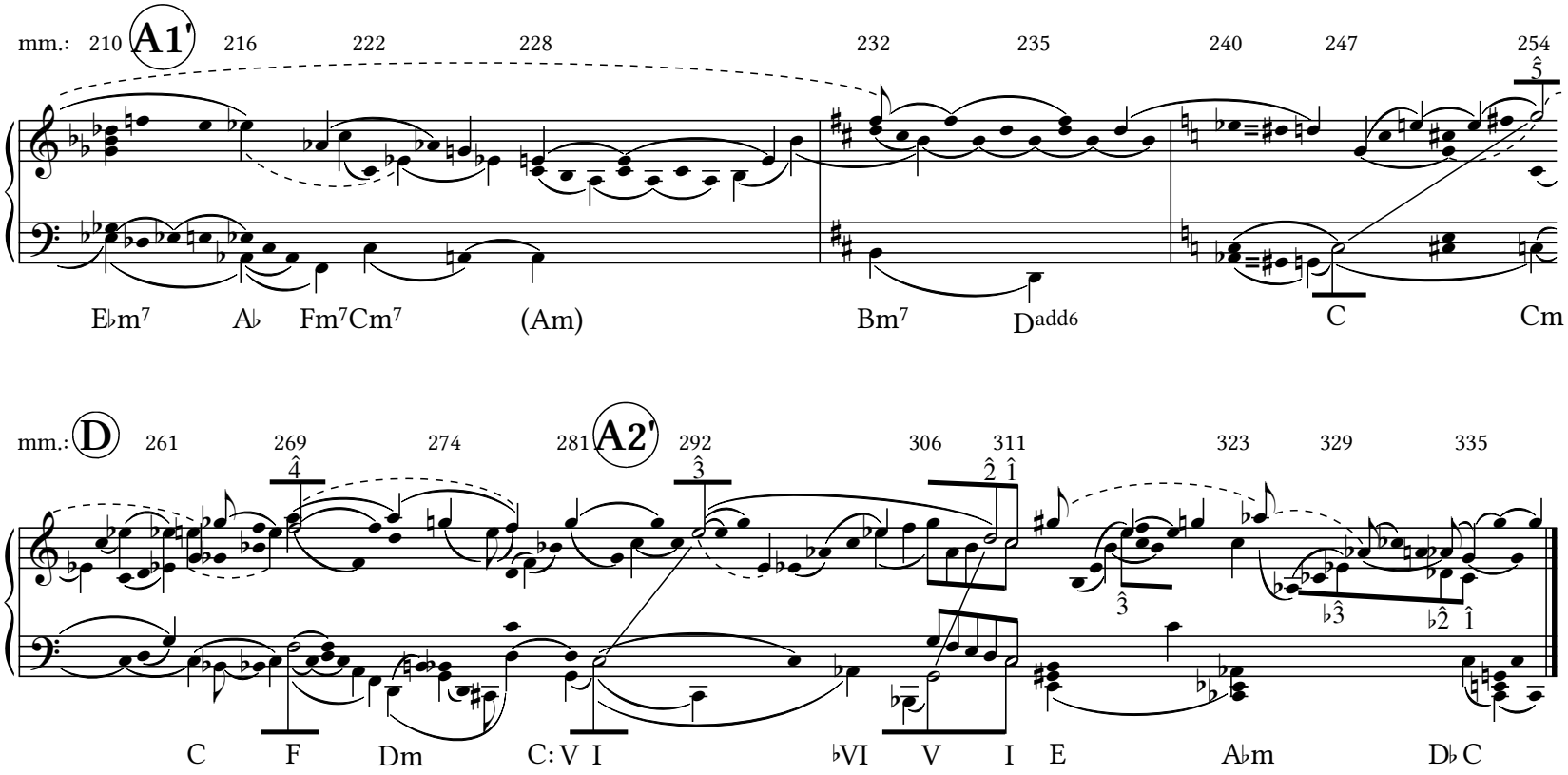
APPENDIX B

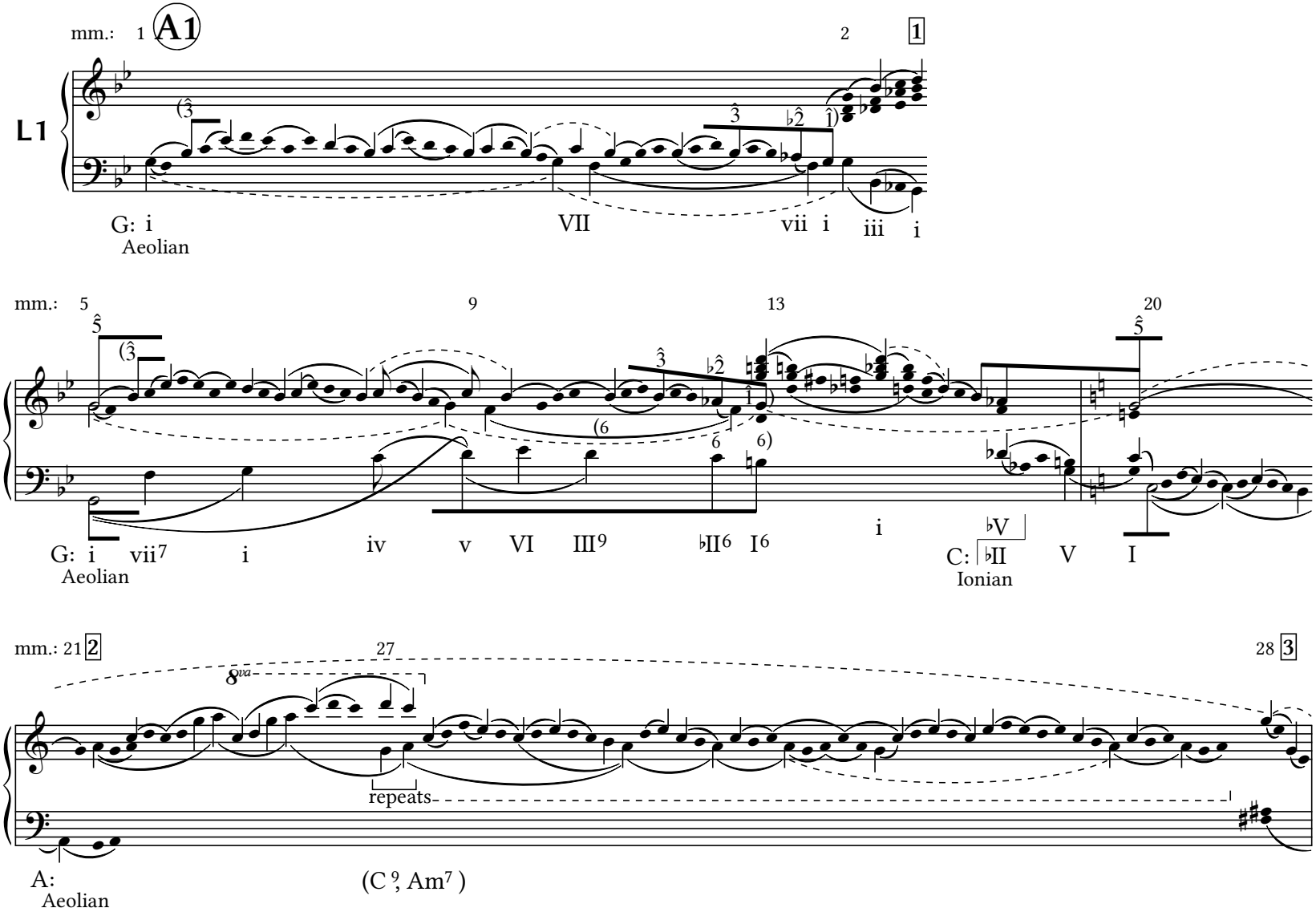
COMPLETE PROLONGATION GRAPHS OF HOLST'S *THE HYMN OF JESUS*

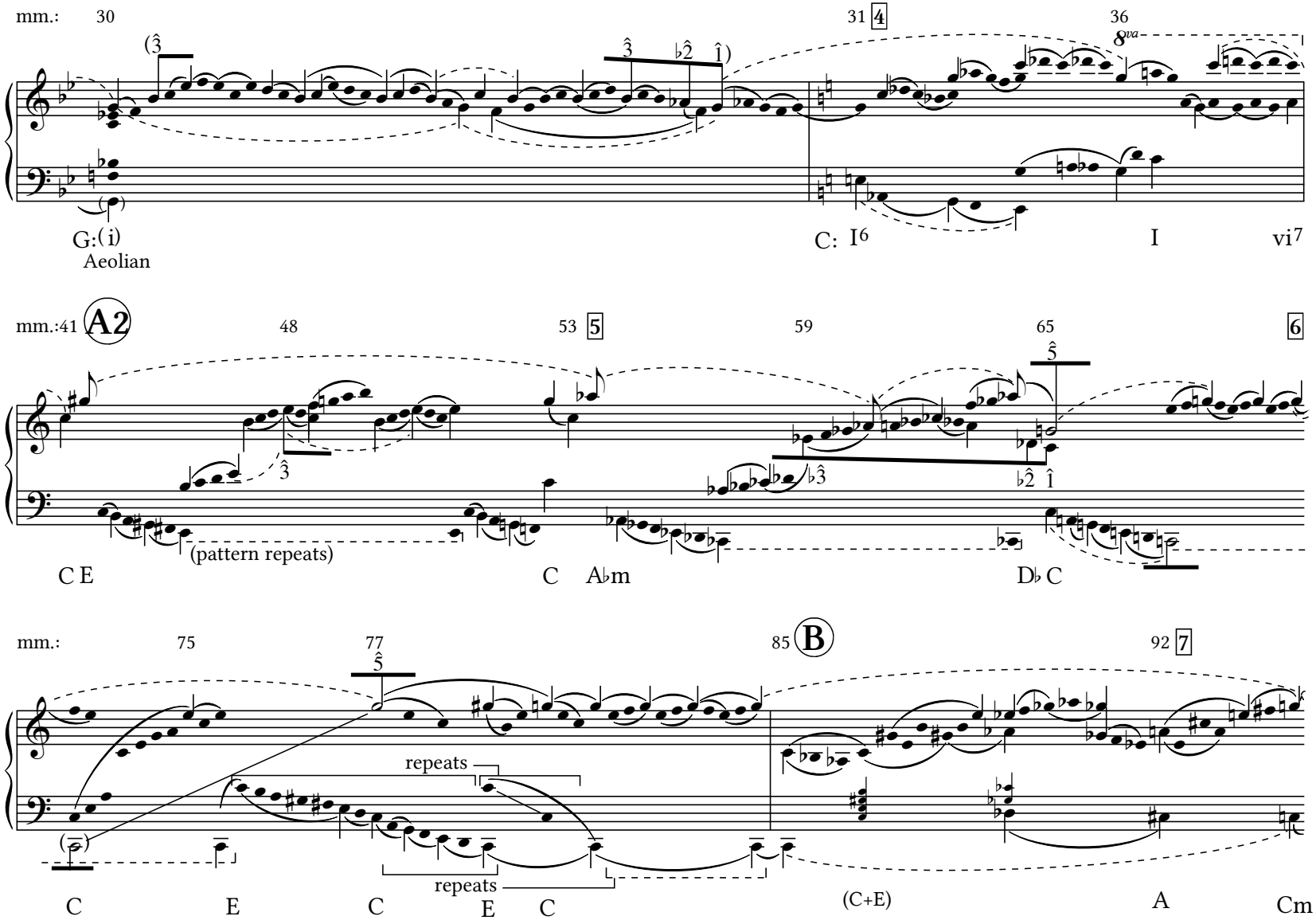


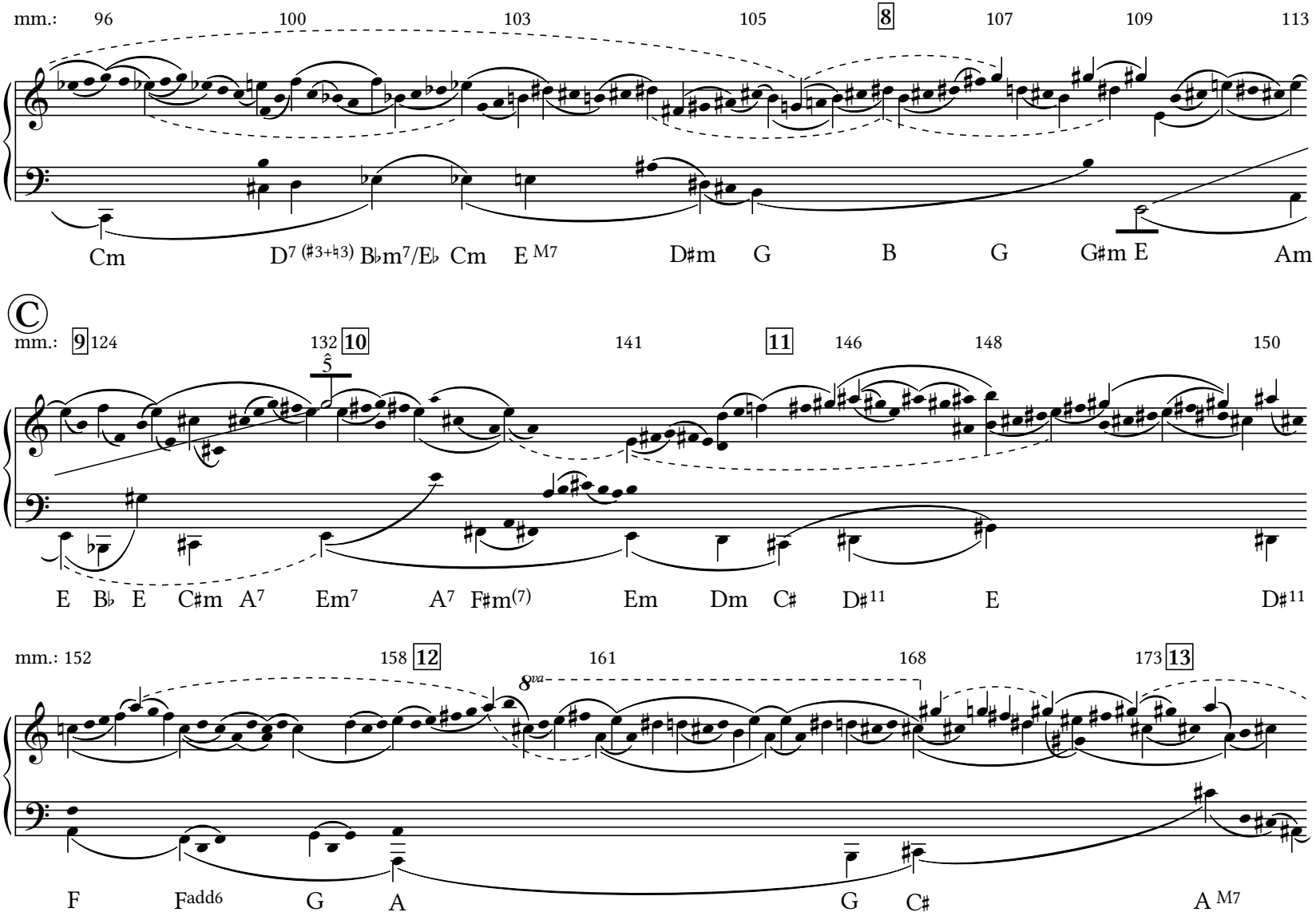

mm.:
A1
13
20
30
41
A2
55
65
L3
C: v
Mixolydian
I
v
III
♭VI
I
mm.:85
B
C
109
132
153
B'
199
A1'
C: I
Mixolydian
III
iii
IV
VI
V
II
iv
mm.:224
254
D
269
274
281-6
A2'
306
311
335
C:
Mixolydian
II
I
IV
ii
I
V
I
III
♭VI
I

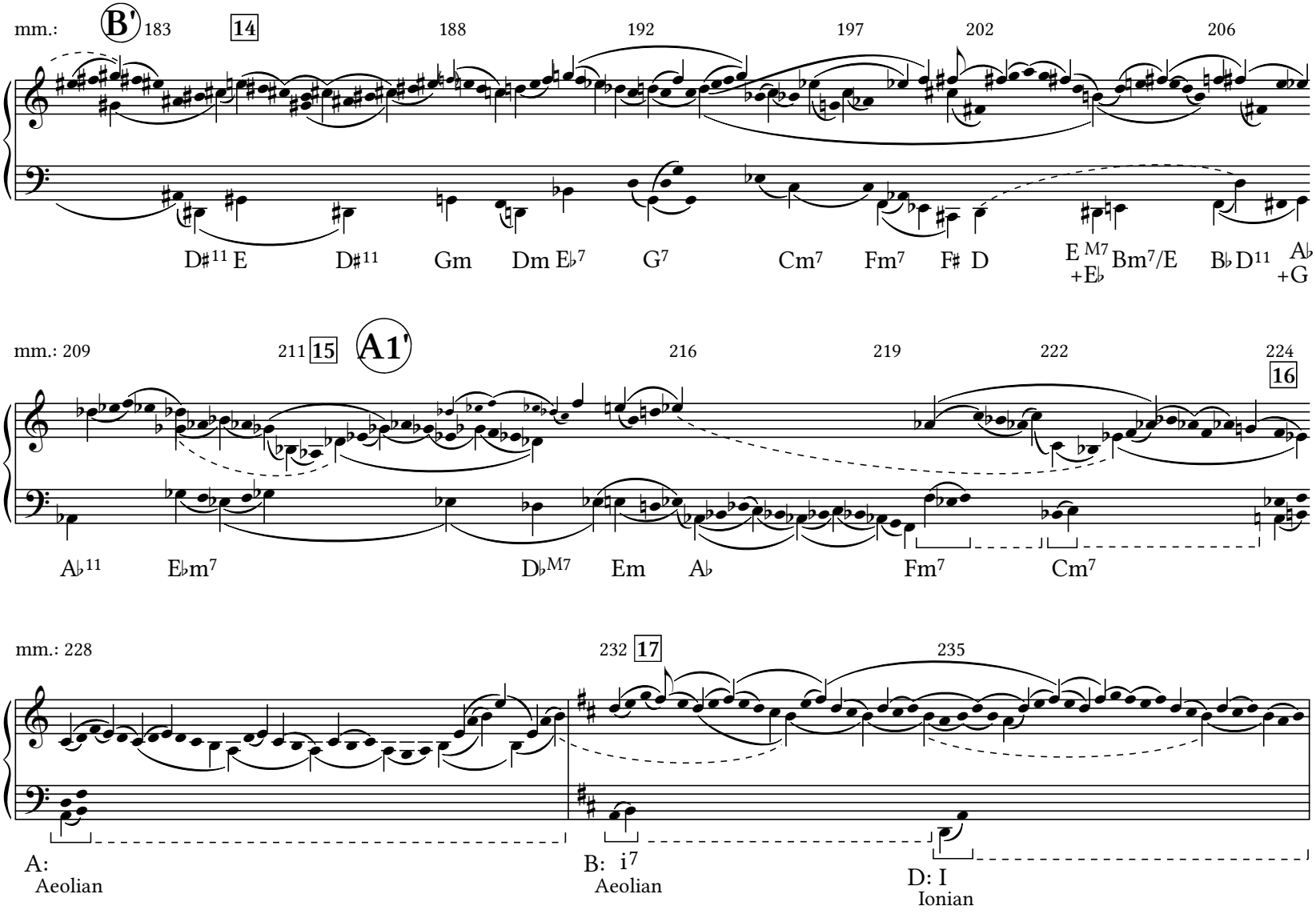

mm.:
A1
13
20
27
28
30
31
L2
G: i
Aeolian
iv
v7
III7
vii7
I6
C: ♭II
Ionian
I
vi
G: i
Aeolian
C: I6
vi7
mm.:41
A2
53
59
65
85
B
95
109
C
132
143
E
A♭m
D♭
C: I
I
i
i6
V
E
Em
C♯
mm.:
148
158
168
181
B'
188
195
199
202
207
E
F
A
C♯
D♯11
G11
Fm7
F♯
D

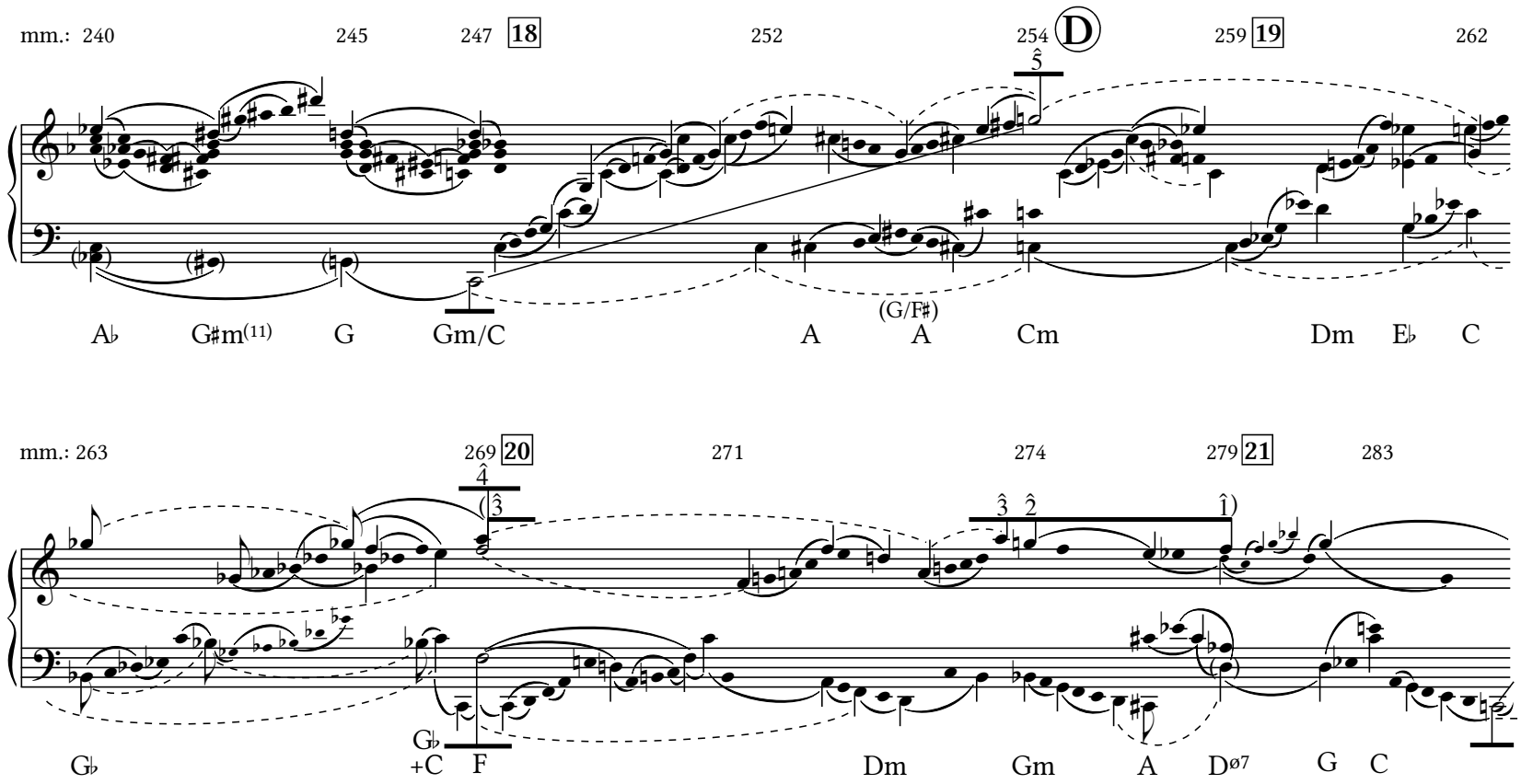

mm.: 210 A1' 216 222 228 232 235 240 247 254
E♭m7 A♭ Fm7Cm7 (Am) Bm7 Dadd6 C Cm
mm.: D 261 269 274 281 A2' 292 306 311 323 329 335
C F Dm C: V I ♭VI V I E A♭m D♭ C

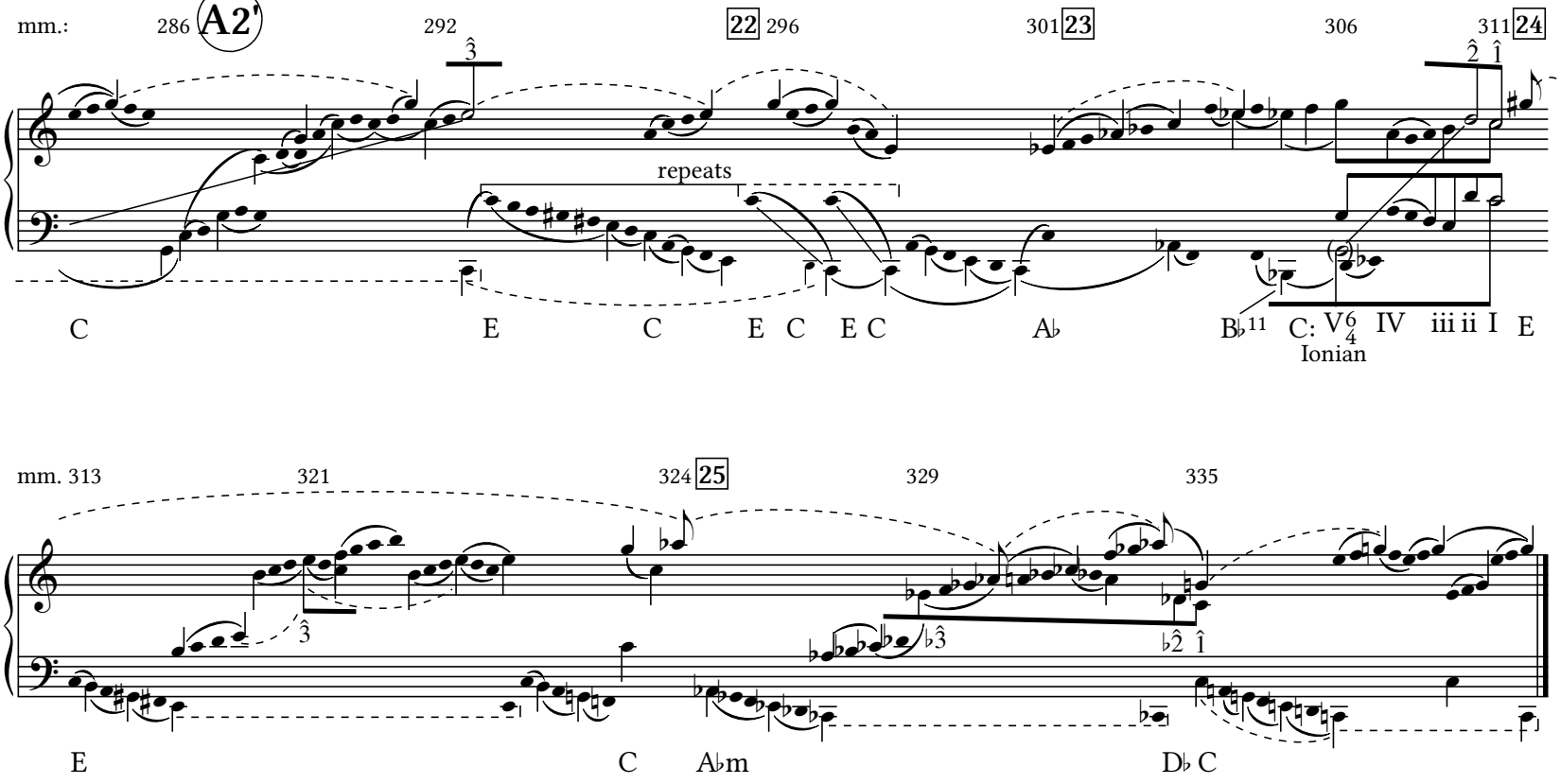

mm.: 1
A1
2
1
L1
G: i
Aeolian
VII
vii i
iii i
mm.: 5
9
13
20
G: i vii7 i iv v VI III9 ♭II6 I6 i
Aeolian
C: ♭II V I
Ionian
mm.: 21
2
27
28
3
8va
repeats
A:
Aeolian
(C 9, Am7)


mm.: 30
31 4
36
8va
G:(i)
Aeolian
C: I6
I
vi7
mm.:41 A2
48
53 5
59
65
6
(pattern repeats)
C E
C
A♭m
D♭ C
mm.:
75
77
85 B
92 7
repeats
repeats
C
E
C
E
C
(C+E)
A
Cm


mm.: 96 100 103 105 8 107 109 113
Cm D7 (♯3+♭3) B♭m7/E♭ Cm E M7 D♯m G B G G♯m E Am
C
mm.: 9 124 132 10 141 11 146 148 150
E B♭ E C♯m A7 Em7 A7 F♯m(7) Em Dm C♯ D♯11 E D♯11
mm.: 152 158 12 161 168 173 13
8va
F Fadd6 G A G C♯ A M7


mm.:
B'
183
14
188
192
197
202
206
D♯11 E
D♯11
Gm
Dm E♭7
G7
Cm7
Fm7
F♯ D
E M7
+E♭
Bm7/E
B♭ D11
A♭
+G
mm.: 209
211
15
A1'
216
219
222
224
16
A♭11
E♭m7
D♭M7
Em
A♭
Fm7
Cm7
mm.: 228
232
17
235
A:
Aeolian
B: i7
Aeolian
D: I
Ionian


mm.: 240
245
247
18
252
254
D
259
19
262
5
(G/F♯)
A♭
G♯m(11)
G
Gm/C
A
A
Cm
Dm
E♭
C
mm.: 263
269
20
271
274
279
21
283
4
3
3
2
1
G♭
+C
F
Dm
Gm
A
Dø7
G
C


mm.:
286
A2'
292
22
296
301
23
306
311
24
repeats
C
E
C
E C
E C
A♭
B♭11
C: V6/4 IV iii ii I E
Ionian
mm. 313
321
324
25
329
335
E
C
A♭m
D♭ C

REFERENCES CITED

Adams, Byron. 1996. Scripture, church, and culture: Biblical texts in the works of Ralph Vaughan Williams. In *Vaughan Williams Studies*, edited by Alain Frogley, 99–117. Cambridge: Cambridge Univ. Press.

Agawu, Kofi V. 1989. Schenkerian Notation in Theory and Practice. *Music Analysis* 8 (3, October): 275–301.

Austin, John. 1706. *Devotions In the Ancient Way of Offices*. Ed. George Hickes, Susanna Hopton. http://books.google.com/books?id=LH4OAAAAQAAJ&dq=john austin devotions. London: E. Mead.

Baker, James M. 1983. Schenkerian Analysis and Post-Tonal Music. In *Aspects of Schenkerian Theory*, edited by David Beach, 153–186. New Haven: Yale Univ.

———. 1990. Voice Leading in Post-Tonal Music: Suggestions for Extending Schenker's Theory. *Music Analysis* 9 (2, Jul.): 177–200.

Bates, Ian Frederick Edward. 2009. *Generalized Diatonic Modality and Ralph Vaughan Williams' Compositional Practice*. PhD Diss., Yale Univ.

Boss, Jack. 1994. Schoenberg on Ornamentation and Structural Levels. *Journal of Music Theory* 38 (2, Autumn): 187–216.

Boyer, Daniel Royce. 1969. *Gustav Holst's* The Hymn of Jesus. DMA Treatise, Univ. of Texas at Austin.

———. 1975. Holst's *The Hymn of Jesus*: An Investigation into Mysticism in Music. *Music Review* 36:272–283.

Brown, Matthew. 1993. Tonality and Form in Debussy's *Prélude à "L'Après-midi d'un faune"*. *Music Theory Spectrum* 15 (2, Autumn): 127–143.

———. 2004-5. Composing with Prototypes: Charting Debussy's "L'Isle Joyeuse". *Intégral* 18–19:151–188.

Burns, Lori. 1995. *Bach's Modal Chorales*. Stuyvesant, NY: Pendragon Press.

Caldwell, John, and Joseph Dyer. 2011. Benedicite. In *Grove Music Online. Oxford Music Online*, http://www.oxfordmusiconline.com/subscriber/article/grove/music/02656 (accessed December 9, 2011).

Church of England. [1662] 2011. *Book of Common Prayer*. http://www.churchofengland.org/prayer-worship/worship/book-of-common-prayer.aspx. Cambridge: Cambridge Univ. Press.

Cone, Edward T. 1962. The Uses of Convention: Stravinsky and His Models. *The Musical Quarterly* 48 (3, July): 287–299.

Day, James. 1998. *Vaughan Williams*. 3rd ed. Oxford: Oxford Univ. Press.

Dickinson, A. E. F. 1959. Ralph Vaughan Williams. *The Musical Quarterly* 45 (1, Jan.): 1–7.

———. 1972. The Neo-Modal Style. *The Music Review* 33:108–121.

———. 1995. *Holst's Music: A Guide*. London: Thames.

Forrest, David. 2010. Prolongation in the Choral Music of Benjamin Britten. *Music Theory Spectrum* 32 (1): 1–25.

Foss, Hubert J. 1950. *Ralph Vaughan Williams: A Study*. London: Harrap.

Greene, Richard. 1992. A Musico-Rhetorical Outline of Holst's "Egdon Heath". *Music & Letters* 73 (2, May): 244–267.

Hauptmann, Moritz. 1888. *The Nature of Harmony and Metre*. Trans. and ed. W. E. Heathcote. London: Swan Sonnenschein.

Head, Raymond. 1999. 'The Hymn of Jesus': Holst's gnostic exploration of time and space. *Tempo*, n.s., 209 (Jul.): 7–13.

Hennecke, Edgar, Wilhelm Schneemelcher, and R. McL. Wilson, eds. [1963] 1992. *New Testament Apocrypha*. Vol. 2, *Writings Relating to the Apostles Apocalypses and Related Subjects*. Cambridge: James Clarke & Co.

Henry, H. T. 1913a. Pange Lingua Gloriosi. In *The Catholic Encyclopedia*. Edited by Charles G. Herbermann, Edward A. Pace, Condé B. Pallen, Thomas J. Shahan, and John J. Wynne. New York: The Encyclopedia Press, Inc. Available online, http://en.wikisource.org/wiki/Catholic_Encyclopedia_(1913)/Pange_Lingua_Gloriosi.

———. 1913b. Vexilla Regis Prodeunt. In *The Catholic Encyclopedia*. Edited by Charles G. Herbermann, Edward A. Pace, Condé B. Pallen, Thomas J. Shahan, and John J. Wynne. New York: The Encyclopedia Press, Inc. Available online, http://en.wikisource.org/wiki/Catholic_Encyclopedia_(1913)/Vexilla_Regis_Prodeunt.

Hindemith, Paul. 1942. *The Craft of Musical Composition, Book I: Theory*. 4th ed. Trans. Arthur Mendel. New York: Schott.

Holst, Gustav. 1974. *Gustav Holst, Letters to W. G. Whittaker.* Ed. Michael Short. Glasgow: Univ. of Glasgow Press.

Holst, Imogen. 1968. *The Music of Gustav Holst.* 2nd ed. London: Oxford Univ. Press.

———. 1969. *Gustav Holst: A Biography.* 2nd ed. London: Oxford Univ. Press.

Howes, Frank. 1954. *The Music of Ralph Vaughan Williams.* London: Oxford Univ. Press.

Isted, Lisa. 1993. *Modal Structures in European Art Music (1870–1939).* PhD Diss., Univ. of Bristol.

Kennedy, Michael. 1971. *The Works of Ralph Vaughan Williams.* London: Oxford Univ. Press.

———. 1972–3. The unknown Vaughan Williams. *Proceedings of the Royal Musical Association* 99:31–41.

Kimmel, William. 1941. Vaughan Williams's Melodic Style. *The Musical Quarterly* 27 (4, Oct.): 491–499.

Krebs, Harald. 1981. Alternatives to Monotonality in Early Nineteenth-Century Music. *Journal of Music Theory* 25 (1, Spring): 1–16.

———. 1985. The Background Level in Some Tonally Deviating Works of Franz Schubert. *In Theory Only* 8 (8, December): 5–18.

Larson, Steve. 1997. The Problem of Prolongation in "Tonal" Music: Terminology, Perception, and Expressive Meaning. *Journal of Music Theory* 41 (1, Spring): 101–136.

———. 1997–98. Musical Forces and Melodic Patterns. *Theory and Practice* 22–23: 55–71.

———. 2012. *Musical Forces: Motion, Metaphor, and Meaning in Music.* Bloomington: Indiana Univ. Press.

Lerdahl, Fred. 1989. Atonal Prolongational Structure. *Contemporary Music Review* 4:65–87.

———. 1997. Issues in Prolongational Theory: A Response to Larson. *Journal of Music Theory* 41 (1, Spring): 141–155.

———. 1999. Spatial and Psychoacoustic Factors in Atonal Prolongation. *Current Musicology* 63:7–26.

Lester, Joel. 1970. A Theory of Atonal Prolongations as Used in an Analysis of the Serenade, Op. 24 by Arnold Schoenberg. PhD diss., Princeton University.

Macan, Edward L. 1991. *An Analytical Survey and Comparative Study of the Music of Ralph Vaughan Williams and Gustav Holst, c. 1910-1935*. PhD Diss., Claremont Graduate School.

———. 1993. Block Juxtapositions: A Structural Principle in the Music of Holst and Vaughan Williams. *British Music* 15:84–104.

Manning, David. 2003. *Harmony, Tonality and Structure in Vaughan Williams's Music*. PhD Diss., Univ. of Wales, Cardiff.

Matthews, Colin. 2011. Holst, Gustav. In *Grove Music Online. Oxford Music Online*, http://www.oxfordmusiconline.com/subscriber/article/grove/music/13252 (accessed May 8, 2011).

Mead, George Robert Stow. 1900. *Fragments of a Faith Forgotten*. London: Theosophical Publishing Society. http://www.gnosis.org/library/grs-mead/fragments_faith_forgotten/index.htm (accessed October 6, 2011).

Mellers, Wilfrid. 1989. *Vaughan Williams and the Vision of Albion*. London: Barrie & Jenkins.

Morgan, Robert P. 1976. Dissonant Prolongation: Theoretical and Compositional Precedents. *Journal of Music Theory* 20 (1, Spring): 49–91.

Neumeyer, David. 1987a. The Ascending "Urlinie". *Journal of Music Theory* 31 (2, Autumn): 275–303.

———. 1987b. The Three-Part *Ursatz*. *In Theory Only* 10 (1–2, August): 3–29.

Ottaway, Hugh, and Alain Frogley. 2011. Vaughan Williams, Ralph. In *Grove Music Online. Oxford Music Online*, http://www.oxfordmusiconline.com/subscriber/article/grove/music/42507 (accessed May 7, 2011).

Pakenham, Simona. 1957. *Ralph Vaughan Williams: A Discovery of his Music*. London: Macmillan.

Payne, Anthony. 1998. Encompassing His Century's Dilemmas: the Modality of Vaughan Williams. In *Vaughan Williams in Perspective: Studies of an English Composer*, edited by Lewis Foreman, 164–175. London: Albion Music, for the Ralph Vaughan Williams Society.

Pearsall, Edward R. 1991. Harmonic Progressions and Prolongation in Post-Tonal Music. *Music Analysis* 10 (3, Oct.): 345–355.

Persichetti, Vincent. 1961. *Twentieth-Century Harmony: Creative Aspects and Practice*. New York: W. W. Norton & Co.

Pick, Bernard. 1909. *The Apocryphal Acts of Paul, Peter, John, Andrew and Thomas*. Chicago: Open Court Publishing. Available online, http://www.archive.org/download/apocryphalactsof00pickuoft/apocryphalactsof00pickuoft_bw.pdf.

Pike, Lionel. 1984. Tallis: Vaughan Williams: Howells: Reflections on Mode Three. *Tempo*, n.s., 149 (Jun.): 2–13.

———. 2003. *Vaughan Williams and the Symphony*. London: Toccata.

Pomeroy, David Boyd. 2000. *Toward a New Tonal Practice: Chromaticism and Form in Debussy's Orchestral Music*. PhD Diss., Cornell Univ.

———. 2004. Tales of Two Tonics: Directional Tonality in Debussy's Orchestral Music. *Music Theory Spectrum* 26 (1, Spring): 87–118.

Rubbra, Edmund. 1937. The Later Vaughan Williams. *Music & Letters* 18 (1, Jan.): 1-8.

———. 1974. *Gustav Holst: Collected Essays*. Edited by Stephen Lloyd and Edmund Rubbra. London: Triad Press.

Salzer, Felix. 1962. *Structural Hearing: Tonal Coherence in Music*. 2 vols. bound together. New York: Dover Publications.

Schenker, Heinrich. [1906] 1954. *Harmony*. Ed. Oswald Jonas. Trans. Elisabeth Mann Borgese. Chicago: Univ. of Chicago Press.

———. [1926] 1996. Further Consideration of the Urlinie: II. Trans. John Rothgeb. In *The Masterwork in Music: A Yearbook*, 2:1–22. New York: Cambridge Univ. Press.

———. [1935] 1979. *Free Composition*. Trans. and ed. Ernst Oster. New York: Longman.

Schulenberg, David. 1985–86. Modes, Prolongations, and Analysis. *Journal of Musicology* 4 (3): 303–329.

Short, Michael. 1990. *Gustav Holst: The Man and His Music*. New York: Oxford Univ. Press.

Stern, David. 1981. Tonal Organization in Modal Polyphony. *Theory and Practice* 6 (2): 5–39.

Straus, Joseph. 1987. The Problem of Prolongation in Post-Tonal Music. *Journal of Music Theory* 31 (1, Spring): 1–21.

Vaillancourt, Michael. 1991. Modal and Thematic Coherence in Vaughan Williams's *Pastoral Symphony*. *Music Review* 53:203–17.

Väisälä, Olli. 2002. Prolongation of Harmonies Related to the Harmonic Series in Early Post-Tonal Music. *Journal of Music Theory* 46 (1/2, Spring–Autumn): 207–283.

———. 2004. *Prolongation in Early Post-Tonal Music: Analytical Examples and Theoretical Principles*. PhD Dissertation. Helsinki: Sibelius Academy.

van den Toorn, Pieter C. 1975. Some Characteristics of Stravinsky's Diatonic Music. *Perspectives of New Music* 14 (1, Autumn–Winter): 104–138.

———. 1977. Some Characteristics of Stravinsky's Diatonic Music (II). *Perspectives of New Music* 15 (2, Spring–Summer): 58–95.

Vaughan Williams, Ralph. 1987. *National Music and Other Essays*. 2nd ed. Oxford: Oxford Univ. Press.

Vaughan Williams, Ralph, and Gustav Holst. 1959. *Heirs and Rebels: Letters Written to Each Other and Occasional Writings on Music*. Edited by Ursula Vaughan Williams and Imogen Holst. London: Oxford Univ. Press.

Vaughan Williams, Ralph, and David Manning. 2008. *Vaughan Williams on music*. Oxford: Oxford Univ. Press.

Vaughan Williams, Ursula. 1964. *R. V. W.: A Biography of Ralph Vaughan Williams*. London: Oxford Univ. Press.

———. 1972–3. Ralph Vaughan Williams and His Choice of Words for Music. *Proceedings of the Royal Musical Association* 99:81–89.

Vincent, John. 1951. *The Diatonic Modes in Modern Music*. Berkeley, CA: Univ. of California Press.

Warrack, John. 1974. Holst and the Linear Principle. *The Musical Times* 115 (1579, Sep.): 732–735.

Young, Percy M. 1953. *Vaughan Williams*. London: Dennis Dobson.