

**Harmony, Tonality and Structure in Vaughan Williams's
Music**

Volume 1

David Manning

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Summary

Many elements of and reflections on tonality are to be found in Vaughan Williams's music: tonal centres are established and sustained, consonant triads are pervasive, and sonata form (a structure associated with tonality) is influential in the symphonies. But elements of the tonal system are also challenged: the diatonic scale is modified by modal alterations which affect the hierarchical relation of scale degrees, often consonant triads are not arranged according to the familiar patterns of functional harmony, and the closure of sonata form is compromised by the evasive epilogue ending of many movements and rotational structures. This music is not tonal or atonal, nor does it stand on any historical path between these two thoroughly theorised principles of pitch organisation. With no obvious single theoretical model at hand through which to explore Vaughan Williams's music, this analysis engages with Schenkerian principles, Neo-Riemannian theory, and the idea of sonata deformation, interpreting selected extracts from various works in detail. Elements of coherence and local unities are proposed, yet disruptions, ambiguities, subversions, and distancing frames all feature at different stages. These are a challenge to the specific principle of organisation in question; sometimes they also raise concerns for the engagement of theory with this repertoire in general. At such points, meta-theoretical issues arise, while the overall focus remains on the analytical understanding of Vaughan Williams's music. The text of this thesis comprises Volume One, with supporting examples, figures and tables presented in Volume Two.

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Introduction

How can the elements that comprise Vaughan Williams's music be understood? Do the musical materials cohere, and how can their striking juxtapositions be interpreted? Many previous accounts turn outwards to established notions of the pastoral, national identity and spiritualism, at best situating Vaughan Williams and his music in contested political, social and cultural contexts, at worst restating assumed judgements without fully evaluating what these terms mean. Fewer studies turn inwards, to analyse the music. With an awareness of both, summarised in Chapter One, this study interprets selected extracts and works, in order to understand how the musical materials relate to or resist one another, motivated by a commitment to close reading and theoretical engagement.

Common-practice tonality and Schenkerian analysis provide a benchmark against which to examine the interaction of modal pitch resources and tonal centrality in Chapter Two. Drawing on Felix Salzer's Schenkerian graph of a three bar excerpt from the Fifth Symphony, the impact of the flattened seventh degree on the security of the tonic, and relations between scale degrees, is discussed. It is noted that modal alteration broadens the range of possible tonal strategies. This provides a context for a detailed analysis of tonal and modal procedures in *The Lark Ascending*. Here the interaction of overlapping pentatonic, modal and diatonic pitch groupings is explored. For much of the piece, modal alterations reduce the inherent tension within the scale. Coexistence replaces opposition between the tonic scale degree and the 'leading note', while pentatonic groupings built on the tonic and dominant also minimise the difference between these two 'polar opposites'. It is proposed that modal alterations can be understood as a defining element of 'modalised tonality'.

Exploration of ‘characteristic’ harmonic progressions is the subject of Chapter Three. The concept of a ‘Complete Modal Scale’ is proposed as an underpinning element of modalised tonality, before contrasting perspectives from Neo-Riemannian theory and a recent study of chromatic transformations by David Kopp are introduced. Although it is essential to be aware of the differences between harmonic progressions in nineteenth-century repertoire and early twentieth-century British music, studies of music by composers including Schubert and Brahms offer a significant perspective on Vaughan Williams’s harmonic procedures. ‘Characteristic’ progressions include third relations and stepwise movement. These often remain within the Complete Modal Scale, but at other times this is exceeded, prompting a discussion of the role of ‘chromaticism’ in modalised tonality. Those progressions which highlight equal division of the octave can feature particularly strong voice leading progressions, while the tonal centre is challenged. At other times the tonic retains its referential function, and is even affirmed by ‘characteristic’ progressions. Two short pieces provide case studies where Vaughan Williams’s ‘characteristic’ progressions are particularly prominent.

Challenges to the stability of tonal centres feature during the works analysed in Chapter Four. The undermining of tonal stability, juxtaposition as a tonal strategy, and tonal resistance, are considered in a range of choral and orchestral works. The implications of the continued appearance of diatonic tonality in the composer’s work is addressed. The chapter ends with analysis of two related extracts: the final movement of the Sixth Symphony, and ‘Cloud-Capp’d Towers’ from *Three Shakespeare Songs*, where semitonal relations resist tonal stability. While tonal centricity is challenged in these works, the notions of modal alteration and modalised tonality are still influential.

A thorough exploration of a range of diverse harmonic and tonal strategies in Chapters Two to Four provide a context for a study of structure in Chapter Five. Sonata deformation theory and rotational form, developed by James Hepokoski and Warren Darcy, are introduced. Although these theoretical concepts have been developed with reference to the music of Mahler, Sibelius and Strauss, similar structural procedures are found in the symphonies of Vaughan Williams. In addition two new categories of sonata deformation are proposed. While sonata deformation theory has emerged in response to movements in dialogue with sonata form, this chapter also considers the role of structure in other types of symphonic movement.

Chapter Six concludes the thesis with a consideration of broader issues, suggested by the preceding analyses of harmony, tonality and structure. With reference to the wider contexts discussed in Chapter One points of contact are made between an emerging analytical approach and previous contextual studies.

Note on Terminology

Pitches with a subscript number indicate register, where C_4 is middle C, and the C an octave above is C_5 . Notes without a subscript number refer to that pitch irrespective of register. Superscript numbers following bar references indicate a particular beat within that bar. For example, in $\frac{6}{8}$ time, the second dotted crotchet beat of bar two is written as ‘bar 2⁴’. Bar references are given in relation to rehearsal numbers or letters, depending upon what is given in the published score. The bar at figure 15 is written as ‘bar 15.1’ for example. Chords are referred to by roman numerals using lower case to indicate the minor mode.

Chapter 1

Contexts: Vaughan Williams Studies, Music Theory and Analysis

The music of Ralph Vaughan Williams (1872-1958) resists organisation into stylistic periods. New elements can be seen to emerge at various stages, but this does not usually result in the rejection of other compositional strategies. The late-romanticism of early compositions (some of which were subsequently withdrawn by the composer) did disappear, however. Folk-like melodies, which are not usually folksong quotations, the epilogue-style fadeout at the end of pieces, and triadic harmony, are three elements of Vaughan Williams's musical language that recur throughout the composer's work. The presence of familiar elements, even the reworking of particular themes, might suggest a stability of purpose and vision, a unified *oeuvre*.

This composer's music is not accommodated by the classic narrative account of late nineteenth- and early twentieth-century music, detailing a shift from tonality to atonality, consonance to dissonance, romanticism to modernism. This is not 'music in transition'.¹ Instead, initial reception and subsequent critical commentary have established a network of related ideas which the composer's music is understood to express: Englishness, the pastoral, mysticism, humanism, and the spirit. The 'established' critics Michael Kennedy, Hugh Ottaway, James Day and Wilfrid Mellers all repeat these ideas.² The emphasis shifts from piece to piece, mysticism is prevalent in *Flos Campi* (1925), while *The Lark Ascending* (1914, rev. 1920) typifies the pastoral style for example, but these authors share ideas on any one piece sometimes to the point of plagiarism.³ Mellers claims not to have re-read any of the previous

books on Vaughan Williams, yet restates many of the critical values from earlier studies.

All this suggests a composer with a clear vision, made explicit in his writings, and supported by critics who seek to make the music's 'inherent' meaning explicit. The critics cast themselves in a neutral role, while constructing a powerful and influential image of a composer and his works, within a tradition of liberal humanist criticism. In addition, Ursula Vaughan Williams's biography remains largely unchallenged, and while it provides a large amount of accurate data, a serious consideration of the composer's relation with modernism, politics, or any reference to ideology is conspicuously absent. The authoritative status of this biography has never been challenged, with references made to it for information rather than debate. As well as the writers on this music agreeing with each other, they also assert that Vaughan Williams's music is straightforward, or even simple:

At the deepest level, Vaughan Williams was an intuitive artist, visionary and non-intellectual; a poet in sound whose perceptions, however complex, can usually be referred to one or other of his basic responses to experience.⁴

His appeal is surely a melodic one, for the basis of his work is the line: a melody with a visionary quality and a broad humanity. ... His enormous integrity and liberal humanist spirit in the tradition of Sir Hubert Parry, his mentor, gave him a commanding position in our music.⁵

It is the achievement of VW that he developed for himself a symphonic style based not on tonic-and-dominant sonata-form but on his hard-won flexibility in the handling of melody itself. It is not over-simplifying the matter to say that for VW tune was everything.⁶

The values underpinning these interpretations could be consigned more easily to the past if they were not sustained through the reprinting of earlier studies and restatement in recent publications: for Oliver Neighbour 'the Eighth Symphony [(1953-5, rev. 1956)] reflects the spontaneity of humanity's music-making';⁷ the *New Grove*, second edition, article on Vaughan Williams retains Ottaway's outdated liberal humanist

assessment that ‘his illumination of the human condition, especially though not exclusively in those works commonly regarded as visionary, is a unique contribution.’⁸

There is an equally long tradition of attacking Vaughan Williams’s music, practised by composers and critics alike. Vaughan Williams’s ability is questioned, or he is judged in unfavourable comparisons to later (usually British) composers. For example, Cecil Gray described Vaughan Williams’s ‘almost sublime incompetence’.⁹ Some more recent writings have also lacked sympathy towards the composer. Peter Evans, surveying instrumental music in twentieth-century Britain, considers revisions after the first performance of the *Tallis Fantasia* (1910, rev. 1913, 1919) indicate deficiencies in the final version:

[The *Tallis Fantasia*] was ... pruned, though it can still seem to tread the same ground once too often.¹⁰

The same author finds serious flaws in the Sixth Symphony:

A merely improvisatory treatment of local detail, remorseless over-scoring and excessive length mar the impact of this symphony: impossible to forget, it juxtaposes uncertainly the composer’s most urgent expression and a disdain for technical finesse approaching irresponsibility.¹¹

Mervyn Cooke extends these specific remarks to make a more general attack:

Peter Evans has justifiably criticized Vaughan Williams’s music for its ‘disdain for technical finesse approaching irresponsibility.’¹²

The reappearance and endorsement of this comment in the introduction to a companion volume on Britten reflects something of that composer’s attitude to Vaughan Williams:

My struggle all the time was to develop a consciously controlled professional technique. It was a struggle away from everything Vaughan Williams seemed to stand for.¹³

A motivating factor in these attacks is to locate one composer’s music against Vaughan Williams’s. A negative attitude towards Vaughan Williams’s music also

surfaces in more contemporary analysis and interpretation. Here is a conclusion from David Clarke's interpretation of Tippett's Concerto for Double String Orchestra:

Unlike the pastoral ruminations of Tippett's English forebears, often associated with a nostalgic searching for a rural idyll, the synthesis of the Double Concerto presents an image of a social order where 'cross-currents' between its constitutive forces make for an image of an invigorated future rather than a mythologised past.¹⁴

There is a striking contrast here between the 'English forebears', who are accounted for as an easily explained uniform group, and Tippett, whose music is located in a complex of competing values and ideas that bear detailed exploration. Tippett's music is the main subject of the essay, of course, so there is no reason why previous composers should be discussed at any length. But Clarke does treat this earlier music rather dismissively in this sentence, an attitude which perhaps reflects the fact that Vaughan Williams's music has received little analytical attention.

Music characterised above as 'pastoral ruminations' clearly has some popular appeal: Classic FM regularly finds slots for *The Lark Ascending* and the Tallis *Fantasia*, even though these pieces are much longer than the average track played. The Vaughan Williams 'canon' is very tightly defined: despite eight conductors having recorded the complete symphonies,¹⁵ and with another cycle in progress,¹⁶ few pieces, other than the 'Greensleeves' fantasia (1934), *The Lark Ascending*, Tallis *Fantasia* and *Five Variants on 'Dives and Lazarus'* (1939), are commonly played on the radio or in public concerts. All these pieces are typical of the pastoral style.

In the context of popular appeal, the question regarding Vaughan Williams's 'Englishness' is less whether his nationality is significant (this is assumed), but how strongly the importance of his nationality is stated. A playing of *The Lark Ascending* on Classic FM can be framed as 'pure relaxation': here nationality is obviously not mentioned. Writing a popular biography of the composer Simon Heffer seeks to

highlight Vaughan Williams's Englishness, leaving open the possibility of feeling an atavistic connection 'with an instinctual past and a common heritage' through listening to the music.¹⁷ Although discussing those compositions where dissonance is prominently featured as well as the *Lark Ascending* and the *Tallis Fantasia*, Heffer reasserts the music's nationality at a point when it seems barely relevant, in the Sixth Symphony (1944-7, rev. 1950). The so-called E major section in the first movement 'assures us that, for all its radicalism, the Sixth is nothing if not a very English work.'¹⁸ This contrasts with a comment made by another non-specialist in a recent broadcast describing the same section as 'if .. in inverted commas ... this is a highly ironic passage'.¹⁹

A right-wing agenda underpins Heffer's project. Roger Scruton co-opts Vaughan Williams into his conservative view of Englishness as a national identity largely confined to the past. Scruton views England in the past tense, the values of 'a society of reserved, reclusive, eccentric individuals' now largely lost.²⁰ Here, Vaughan Williams's music was one of the last expressions of English values while belief in them was still possible.

There are five significant elements to the views summarised above. Firstly, the liberal humanist critical agenda marginalises Vaughan Williams's politics, and presents the composer and his life as a unity. Secondly, polemics from other composers and critics condemned him. Thirdly, a very small canon of popular works has emerged which are typical of the pastoral style. Fourthly, writers on nationalism have claimed Vaughan Williams's music as an expression of right-wing Englishness. Fifthly, while all of these ideas were established at an early stage of reception, they have been reaffirmed by recent publications, listening choices and concert

programming. All these factors combine to create a generally stable image of a composer and his music.

Contested Values

What is problematical about that stability is that so much is left out. None of the sources above seriously consider the composer's political beliefs, the cultural and social context and politics of his actions or his music's relationship with modernism. Whether it is true that his life and work form a unity is rarely challenged. Many of the compositions that he wrote are barely discussed and marginalised.

Research in the fields of cultural history and musicology has gone some way in exploring these areas, locating Vaughan Williams's life and music in contested fields of values, rather than assuming his music expresses a stable network of ideas. A broadening of methodologies and engagement with contested values has opened up a debate, and so there is less agreement between writers than was found in the previous section. What follows is an attempt to highlight some of the points of contention, focussing on conclusions about the political, social and cultural contexts of Vaughan Williams's music and beliefs. There is no attempt to resolve the points of difference between authors: instead this summary provides a wider context for a theoretically engaged analysis of the music.

A number of writers have noted the absence of Vaughan Williams's politics from much critical writing.²¹ It is possible to see how this composer's socialism could have been marginalised: Vaughan Williams lived comfortably for much of his twenties and thirties without working at a time when he had no significant income from publishing or performing. Furthermore he had no practical involvement in political or protest action, even during the General Strike. His notion of community was one that resided within existing class divides: the communities that he was

involved with in amateur practical music-making were those of choral groups and folk song and dance societies:

Implicitly at times, explicitly at others, the folksong movement championed the music of the rural working class against the decadent tastes and products of the upper and upper-middle classes - and drew some hostility on that account. The broader message, however, was one of social regeneration and cohesion, not class struggle - the leading lights were, after all, members of the ruling classes themselves. It is no doubt true, as a number of writers have argued, that such socialism actually bolstered the existing power structures of which it was critical.²²

Frogley goes on to note that Vaughan Williams's socialist aspirations have been completely ignored at times, and that this is misleading. Georgina Boyes' study of folksong explores the politics of that movement in detail, clearly making the point that far from preserving something that already existed, folksong collectors took a working-class tradition and reinvented it as a middle-class leisure activity, a transition over which Cecil Sharp gained hegemonic control.²³ Giving a fair and accurate representation of the traditional practice of folksong and dance was not the aim of the early collectors. Just one of the modifications effected was an over-emphasis on modal rather than tonal melodies. Julian Onderdonk has calculated that while 60% of the tunes Vaughan Williams collected were tonal, only one-third of those that he published were tonal.²⁴ The same writer, identifying the collecting of folksongs as an idealizing process, steps back from criticising this:

Separated by reason of class and education from their object of study, they could not help but idealize (and ultimately misrepresent) folksong. But imbedded in that idealization was a very real interest in and respect for working-class life, one born of an unyielding faith in a firmly democratic future.²⁵

This is a weak, defensive case illustrating the point made above that this 'socialism' bolstered existing power structures. Onderdonk has further explored the ideological and practical changes made to folk-tunes when arranged as hymn tunes. But again he seeks to preserve an image of the composer:

Vaughan Williams may have been animated by nationalist concerns in many of his musical projects and activities, but he was first and foremost a *composer*, and by virtue of his dedication to craft he maintained a final independence from all ideologies and agendas.²⁶

By contrast to this attempted protectionism, Paul Harrington moves from an identification of political inaction to a narrow pigeon-holing of the composer's music:

In their [Vaughan Williams's and Holst's] music they effected an art that fully realised the best of the late Victorian days of hope – this is probably the only kind of radical action they were qualified to pursue. Their music, like the age that formed it, is widely misunderstood. But these late Victorian middle-class socialists, it must be confessed, fall to powder if we drop the full weight of the class struggle on their prim shoulders.²⁷

To understand this music in terms of late Victorian hope is an extremely reductionist view. One aspect that Harrington does not acknowledge in the quoted passage is that Vaughan Williams engaged with the experience of modernity. The experience of war helped shape the *Pastoral Symphony* (1920-1, rev. 1950-1), for example. Yet Harrington makes the point earlier that listening to this symphony reveals 'the ability of the pastoral style to convey genuine pain.'²⁸ Vaughan Williams was influenced not only by living in the modern environment, but by musical modernism. This can be detected in works such as symphonies nos. 4 (1931-4), and 6, *Riders to the Sea* (1925-32), *Job* (1930), and *Sancta Civitas* (1923-5), the Violin Concerto (1924-5) and the Piano Concerto (1926, 1930-1).

Duncan Hinnells focuses on the Piano Concerto as a neglected work, tracing its reception history, and considering its relationship with modernism. Following Dahlhaus's location of romanticism in a modernist world in German music of the late-nineteenth century, Hinnells suggests 'Dahlhaus's concept of an emerging new-romantic music, whose power is all the greater because of its abstraction, its "otherness", its unique romanticism in a positivist, modern culture, may be helpful when considering Vaughan Williams's aesthetic system.'²⁹ In any case the location of modernism in music is still contested in writings about early twentieth-century music.

James Hepokoski has described Strauss and Sibelius as ‘early modernists’, for example.³⁰ Hinnells suggests that Vaughan Williams ‘in mixing and perhaps “quoting” musical styles as distinct as Fauré, Ravel, Bartók and Stravinsky, was engaging in a modernist aesthetic practice which Hepokoski identifies as characteristic of Sibelius.’³¹

This is a particularly provocative interpretation when one considers that Vaughan Williams has been cast in opposition to modernism. For example, Christopher Butler suggests artists had to value progress in order for new languages to become available:

Such arguments hardly appealed to the true conservatives of this period [1900-1916], who, like Elgar, Vaughan Williams, Puccini, Suk and Rachmaninov, developed earlier styles, and thought of themselves as sustaining enduring values.³²

Here, Vaughan Williams is positioned as distinctly less interesting than the avant-garde, and somewhat easier to account for.

While interpreting Vaughan Williams’s relationship with his contemporary surroundings is vital, this need not replace exploration of the significant value he also placed in the past. Frank Trentmann identifies a ‘new romanticism’ in early twentieth-century English culture. This manifested itself popularly in ramblers’ movements and the revival of folk culture, Vaughan Williams being involved heavily with the latter. More radical versions of this ‘new romanticism’ included ‘smaller fundamentalist groups committed to a comprehensive break with modern urban-commercial society’:

Though varying in size and determination, these bodies shared a common culture of anti-modernism which centred on a new emphasis on community, the unconscious and pantheism.³³

This emphasis on community is congruent with Vaughan Williams’s own views:

The composer must not shut himself up and think about art, he must live with his fellows and make his art an expression of the whole life of the community - if we seek for art we shall not find it.³⁴

The composer participated in both the social practice of the symphonic tradition and celebrating folk dance and song, with a transference of the values of folk to ‘art’ music. Trentmann observes:

Folk-dancing and folk-singing were the cross and the sword in their cultural crusade against the rise of the individualistic, mechanistic and ahistorical outlook of modernity.³⁵

This practical involvement, whether in rambling, mystery country tours, folk-dancing or folk-singing transforms the idea of pastoral for Trentmann. He queries ‘the notion of an aristocratic, conservative pastoral myth’ in favour of a social practice involving large numbers of the early twentieth century English bourgeoisie.³⁶

While Trentmann’s article has not been engaged by musicologists, a cultural history of the English musical renaissance by Robert Stradling and Meirion Hughes has caused considerably more controversy and reaction.³⁷ This study focuses on the self-consciousness with which the renaissance was conducted: first an absence on English musical composition was identified, then the gap was filled with institutions, composers, and ‘great’ men to lead them. The leveraging of power by figures such as Parry, Stanford, Elgar and Vaughan Williams is detailed to reveal the politics of the ‘renaissance’. The music composed has a power far beyond the organisations which support its production: it is used to promulgate ethical values, placing importance in national identity and heritage. This is illustrated by the selection of texts for choral music and the associations made with the pastoral style. Following Elgar’s popularity, the authors chart ‘the rise’ of pastoral music. Summarising their argument in another source Stradling states that after 1914 ‘undoubtedly for the main reason that its nonmodernist aesthetic gave it the widest possible appeal, the pastoral style of Vaughan Williams and his associates became the dominant discourse of music in

Britain.’³⁸ This changed in the early 1930s as absolute music was required due to political circumstances:

Vaughan Williams and others of the Pastoral School conformed to its basic imperatives, since the eternal cause of National Music was more important than the ephemeral need to reflect the nation’s morphology to itself in works with suitably descriptive titles.³⁹

Stradling and Hughes deny the possibility that classical music composed in England during the renaissance could ever be English. The use of German genres reduces ‘commensurately a work’s claim to cultural independence: that is to say, to be in any meaningful way “English”’. Even if new genres could have been developed, these would not have been independent because dependence on the German musical aesthetic remained:

The English Musical Renaissance was never able to evolve indigenous genres. ... In sum, there is a historically ineradicable German presence in this bulwark area of the Renaissance and its alleged ‘independence’.⁴⁰

Stradling and Hughes seek not only to make explicit the power structures of the English musical renaissance, but to argue that the principal objective - to create a school of *national* music - was not fulfilled. They partially succeed in exploring the cultural power of music in England during the period in question, but the study suffers from a lack of precision. A narrative line from Elgar, through ‘the Pastoral School’ to absolute music is proposed, and deviations from this are not really accommodated. This does not allow for the fact that Vaughan Williams produced many compositions in the pastoral style at the same time as ‘absolute’ music, for example. The Ninth Symphony (1956-8) features characteristics of the pastoral style several times while surrounding passages do not carry any specific extra-musical connections. When Stradling and Hughes state ‘the difficulties of coexistence are exposed’⁴¹ in this piece, the problem seems mainly to be that the music does not conform to the constructed historical narrative rather than there being any failure to form a coherent musical

argument in the work. Constructing a dynamic social and political context for the Vaughan Williams's life and music is nonetheless useful and it is in this respect that Stradling and Hughes are more successful.

While Stradling and Hughes stress that Vaughan Williams's music does not engage with modernity, another writer combines modernity and pastoral in a striking interpretation. George Revill, positions the *Lark Ascending* as a 'monument to a radical pastoral',⁴² drawing on Whitehead's philosophy and Marshall Berman's 'modernist pastoral'.⁴³ The orchestra (representing humanity) and the soloist (representing the lark) express the metaphysical states of being and becoming respectively, temporally resolving the disjunction of the material and the spiritual in a modernist pastoral. This specific interpretation, which suffers from being expressed in an overly concise form in Revill's article, has not been engaged by any subsequent literature.

Another approach to pastoral music is hinted at in a review of *Vaughan Williams Studies*. Here Edward Macan suggests there is a tradition of 'radical pastoralism' from Blake and William Morris to Vaughan Williams, one which could even be linked back to seventeenth century ranters and seekers:

I believe that viewing Vaughan Williams as part of this larger cultural/political trend in British history invites a promising new interpretation of British musical pastoralism, one that emphasizes its engagement with earlier British cultural, political, and social concerns, rather than focusing on its lack of engagement with (and apparent reaction against) early twentieth-century musical modernism.⁴⁴

Vaughan Williams's engagement with the experience of living in Edwardian London undoubtedly had some influence on his *London Symphony* (1913, rev. 1918, 1920, 1933). Noting the oblique reference to H. G. Wells's *Tono-Bungay* made by the composer in a remark to Michael Kennedy, Frogley suggests that this is a 'Condition of England' symphony:

Does this Westminster three-quarter chime suggest an impending hour of reckoning for a tottering political system, and thus for the whole nation and empire?⁴⁵

Frogley does not answer this question. Later he asks whether the successful resistance to revolution in England (compared with the rest of Europe) encouraged artists to engage accessible languages:

In music, did it encourage Nationalism over Modernism? In spite of the ominous nature of its ending, the fact remains that *A London Symphony* is tonally secure, its dissonant elements eventually absorbed into tonic harmony. Does this indicate an ultimate faith in the social and political fabric of the nation[?]⁴⁶

Frogley steps back from answering these questions as well. Although inconclusive, these remarks do suggest that some analytical engagement with Vaughan Williams's music might interact with studies that emphasise context.

Frogley's article is one of a number of short studies that look at specific aspects of Vaughan Williams's life and music. Jennifer Doctor examines his work as a composition teacher, in particular encouraging Elizabeth Maconchy, Grace Williams and Ina Boyle in a male-dominated musical profession.⁴⁷ Stephen Banfield chronicles Vaughan Williams's relationship with Gerald Finzi, illustrating that Holst was not the only composer who influenced Vaughan Williams's views of his own music.⁴⁸ Charles McGuire locates the *Tallis Fantasia* and *A Sea Symphony* (1903-10) in the context of the English Music Festival, at a time when instrumental works were starting to receive more prominence in concert programmes.⁴⁹ Hugh Cobbe studies some early letters to reveal Vaughan Williams's appreciation for a number of canonical composers, in particular Wagner. This article makes apparent that there is a good deal of historical evidence in Vaughan Williams unpublished letters that has yet to be fully investigated.⁵⁰ Jeffrey Richards argues that the film music must be understood as an integral part of the composer's work, with clear links between a number of film scores and other compositions. The films offer an opportunity for

Vaughan Williams to return to ideas that recur throughout his output, such as the expression of national identity in the *England of Elizabeth* (1955).⁵¹ Daniel Goldmark also traces some of these ideas of national identity and pastoralism in the film scores.⁵² A number of short studies focus on the literary inspirations for particular works. These include the influence of Matthew Arnold and a group of ‘ritualists’ in Cambridge on the choice of text for *Hugh the Drover* (1910-4, 1920), Blake’s illustrations on *Job*, Whitman’s poetry in *A Sea Symphony*, Robert Louis Stevenson’s poetry in *The Songs of Travel* (1902-4), and Bunyan’s allegory *The Pilgrim’s Progress* (1906, 1921, 1925-36, 1942, 1944-9, 1951-2).⁵³

The studies referred to in this section reveal an upsurge of interest in contextualising Vaughan Williams and his music in recent years. Some have looked in more detail at the contexts of and influences on particular works. Others seek to contextualise Vaughan Williams and his music in relation to broader political, social and cultural concepts. Historical approaches can suggest some issues that might return following the analysis of individual works. I will highlight three issues at this stage. Firstly, given that Vaughan Williams disseminated more modal than tonal folk-tunes, how prevalent is modal writing in his own music? Secondly, the influence of modes and Tudor polyphony on Vaughan Williams’s harmonic has been observed. But could there be more recent precedents that relate to Vaughan Williams’s harmonic language? Thirdly, the relation of Vaughan Williams’s music to European art music is highly charged in an ideological way by Scruton and Heffer, but is seen as an underexplored area in the approach taken by Hinnells (drawing on Dahlhaus and Hepokoski). Did Vaughan Williams’s musical structures show evidence of ‘European’ models? These questions will be considered in the concluding chapter of this thesis. The rest of this chapter briefly considers some previous analyses of the

composer's music, before proposing some methodological principles based on recent developments in the discipline.

Analysis of Vaughan Williams's Music

Some writers have used analysis as an opportunity to defend the composer against criticism:

it is clear that the *Tallis Fantasia* can be regarded not only as extremely fine music, but also as the analytical response of a deeply thinking intellectual musician to the music of one of his precursors.⁵⁴

Pike is implicitly answering the accusations of simplicity or naivety levelled at Vaughan Williams. The analysis in this article mainly focuses on the role of the Phrygian mode in the theme and detailing melodic similarities within the theme and its development through the *Fantasia*. The analysis does not engage any specific music theory. In a subsequent article, Pike traces asymmetric rhythmic patterns in several symphonic movements. The use of cross-rhythms at the foreground and on hyper-metrical levels is presented as an important element of the composer's musical style.⁵⁵

An extended analysis of Vaughan Williams's music is found in Edward Macan's PhD thesis.⁵⁶ Apart from passing references to Schenker, this study does not draw on theory. Macan surveys Vaughan Williams's music, giving numerous examples of characteristics of his style. These include the use and juxtaposition of modal scales, modified modal scales, prominent open sonorities (perfect fourths and fifths), occasional bitonal or whole-tone passages, shifting asymmetric metres and cross-rhythms, and parallel part writing. At times, the purpose of the numerous examples given is unclear, as the study seems to lapse into a catalogue of stylistic traits, rather than forming a cohesive analytical argument. His most original

contribution, however, is the proposal of a structural technique based on juxtaposition in Vaughan Williams's (and Holst's) music:

Above all, this musical language contributes to the formation of 'block structures' in which harmonically static and harmonically goal-orientated sections (or 'blocks') are juxtaposed; these sectional blocks are differentiated by harmonic character, rhythm, tempo, texture and timbre, while being unified by the technique of motivic recurrence and transformation from section to section.⁵⁷

Macan's 'block structures' contrast with the ideas of rotational form and sonata deformation, which I will discuss in Chapter Five.

A recent article on the one-act opera *Riders to the Sea* points to the role of octatonic collections in Vaughan Williams's music. Previously this had only been noted in passing in the *New Grove* article on the composer. Walter Aaron Clark identifies prominent octatonic sets in the opera. For example the first vocal entry uses only the notes of an octatonic scale on E. Chromaticism and polytonality are juxtaposed with more stable diatonic and modal passages in the work as a whole. Clark contrasts the 'night side' of nature and its terrifying aspect, partially conveyed by octatonicism, 'with the "daylight" of stoic resolve and its triumph over adversity' associated with diatonicism.⁵⁸

Sketch studies have included a fair amount of (not theoretically engaged) analysis. Sketches for the Fifth Symphony (1938-43) are briefly noted by Murray Dineen and Lionel Pike, where the composer apparently took some time to decide the work's home key.⁵⁹ Dineen suggests that the unfolding thematic process was inspired by the aural tradition of folk music (although this proposal is not explicitly linked to his comments on the sketches). Byron Adams traces the development of the Sixth Symphony from the initial sketching of motifs through their expansion into themes, sections and continuity sketches. The sources are part of a large collection of Vaughan Williams manuscripts held in the British Library.⁶⁰

Alain Frogley's monograph on the Ninth Symphony is the most substantial sketch study of the composer to date.⁶¹ Analysis of the four movements reveals some parallel musical processes - semitonal relations are pervasive, localised seemingly 'organic' thematic organisations break down in two of the movements, and every movement features some kind of evasiveness at its end. Frogley's account of the compositional process is read in the context of these analytical commentaries. The bulk of these sections track the development of individual themes through the sketches. Detailed discussion is not sacrificed in the face of an enormous quantity of sketch material. Instead, particular issues are traced at length, as a representative indication of Vaughan Williams's working methods. The context for these discussions is given by tabulating all the sketch sources, which clearly shows that the arguments presented are only a fraction of an immense quantity of scholarly research. Extra-musical associations, connecting the symphony with Hardy's *Tess of the D'Urbervilles*, are also proposed and explored.

In both Frogley's and Adams's sketch studies, the principal aim of the analysis is as a preparation for studying the compositional process. Both authors also interpret their study of the sketches as evidence of Vaughan Williams's ability and stature. One of Frogley's aims is to make a contribution to our knowledge of 'how great music comes into existence';⁶² for Adams '[f]ollowing the process of revision ... illuminates Vaughan Williams's artistic integrity and complete professionalism'.⁶³ At these points the authors seem keen to align themselves with the liberal humanist critics discussed above.

This use of analysis to endorse aesthetic judgements is a frequent tactic in writings on the composer, and is especially prevalent in the recent collection, *Vaughan Williams Essays*. In the introduction to this volume, Byron Adams describes

the composer's 'nobility' (after E. M. Forster), 'dignity ... humanity ... fundamental honesty ... humor and modesty'.⁶⁴ Such character traits are linked to the music by Adams, and at this point he adopts a prescriptive tone:

And finally, there is Vaughan Williams's music itself, which must continue to be studied and listened to with unflagging care and attentiveness, for this music contains within it the essence of what Forster identified so aptly as its composer's nobility.⁶⁵

Some of the authors follow this practice of praise and proscribe. In the Fifth Symphony, Dineen tells 'us' that 'we admire the symphony in traditional symphonic terms ... we admire the evolving themes'.⁶⁶ Clark takes a similar tone:

What we admire in Vaughan Williams is his dedication to the cause of expression in music above all else, rather than a slavish devotion to technique and innovation for their own sake.⁶⁷

This implicit broadside against modernism comes at the end of an article which details the composer's use of octatonic devices in *Riders to the Sea*. At the point where contact between modernism and Vaughan Williams seems closest, Clark draws a firm dividing line that 'we' recognise.

Daniel Goldmark is at best vague in his closing sentence:

Vaughan Williams's contribution to these and the other films he scored was to help us understand clearly what was at stake in each story, and thus to shed light on human nature.⁶⁸

Stephen Town describes a composer who 'recast passages until he realized fully his artistic vision',⁶⁹ a strikingly similar assessment to one made by Adams who finds that Vaughan Williams was 'unable to rest until his vision was completely realized.'⁷⁰ The assumption lying behind all of these concluding comments is that the more detailed study a composer receives, the greater the extent of their achievement will be revealed. Such an approach is only slightly balanced by counter-judgements:

Despite his high hopes for the work, by 1951 *The Pilgrim's Progress* was something of an anachronism, even within his own *oeuvre*.⁷¹

Remarks of this kind are few in number in *Vaughan Williams Essays*. There is something particularly opportunistic about claiming the greatness of a figure in a study which is focused on that individual. It is hard to know what these remarks add to our understanding of the composer and his music, as they can be somewhat indiscriminately applied to most artists. The preceding quotations raise the following questions: What composer did not attempt to reach their most complete and final statement whilst composing a piece, even though such completeness can never be grasped? What is ‘human nature’? What is ‘nobility’ and why is it a good thing in an artistic work? What is ‘integrity’ and why is it a good thing? Such questions have been asked before.⁷² These judgements are vague and the assumptions behind them are questionable.

Lionel Pike does not simply praise the composer in *Vaughan Williams and the Symphony*. The consistent distinction between ‘logical’ absolute music, which does not engage with worldly concerns, and programmatic elements is problematic, however. In the *Sea Symphony* there is a ‘conflict between programme music and less illustrative types of writing.’⁷³ In the Ninth Symphony, ‘one point is inescapable: programme music it maybe – but in no way is it illogical.’⁷⁴ There is a large amount of analytical description in *Vaughan Williams and the Symphony*, but this is presented in a series of chronological accounts of the symphonies that barely touch on broader issues surrounding the works. Pike clearly prefers the symphonies that are the most ‘absolute’ and sees programmatic elements as alien to the symphonic ideal. As a result, he finds fault with most of the symphonies. Where programmatic elements are least evident, in the eighth, the music is ‘light-weight’. Pike is discriminate in his judgements, but it is against a fixed agenda of romantic idealism, which is some distance historically and aesthetically from Vaughan Williams’s music.

While some use analysis to provide an apparent basis for praising the composer, or sustaining an aesthetic agenda, others employ analysis in theoretically-engaged studies. Anthony Pople reads the *Tallis Fantasia* in the context of music competitions of the period, where composers would submit ‘Phantasy’ movements following stated generic conventions. Part of the article focuses on the relation of triads by thirds, a prominent device in the piece, using pitch class notation to examine these characteristic progressions with their distinctive movement of the root by ic3 or ic4. Revisions of the score after the first performance are also explored, providing a further context for an understanding of the ‘final’ score. I will discuss the analysis of chord relations further in Chapter Three.

Arnold Whittall offers an analytical interpretation of the Fifth Symphony, questioning the conventional reading of the ending as a resolution of the pitch oppositions within the symphony. Instead he suggests that symmetry replaces resolution in this piece. Felix Salzer’s analysis of three bars of this symphony is problematised by Whittall, and I will explore this in Chapter Two.

Contrasting methodological approaches are observed in a review article assessing Frogley’s *Vaughan Williams Studies* and David Clarke’s *Tippett Studies*:

Clarke’s volume represents an analytical tradition increasingly concerned to express contextual relevance, whereas Frogley’s exemplifies an historical heritage striving to embrace analytical rigour.⁷⁵

Chris Kennett is interested in the *rapprochement* of the following dialectics in these books:

tradition and progressiveness, directness and abstraction, folksong- and continental-influenced composition that lies at the heart of the complex, and contradictory senses of ‘Englishness’ ascribed to these seemingly antithetical figures.⁷⁶

Clearly analysis and contextual approaches form a dialectical pairing in studies of English music. Reading essays on Tippett and Vaughan Williams alongside each

other suggests to Kennett that the differences between these composers could be re-evaluated. From this one might suggest that Vaughan Williams's position in twentieth-century British music could be reconsidered. Clearly such a project lies beyond the scope of this thesis, but detailed analysis can contribute to a deeper understanding of the similarities and differences between composers' music. Before more substantial communication can occur between analytical and contextual approaches to Vaughan Williams, more analysis of the music is required. If the limitations of 'composer praise' are to be overcome, a methodological basis for analysis must be established clearly. Recent theory and analysis provides a rich store to draw from in this respect.

Recent Theory and Analysis

Summarising current issues in theory and analysis is a task that has become increasingly complex, as the discipline has diversified. For my purpose, I will focus on those developments in the area which could loosely be termed 'composer studies', that is analysis where the musical compositions form the central subject of interest. A full survey of this area would be enormous, and so I identify a number of contemporary concerns. The thesis does not engage all of them directly but they combine to form the context in which this work has been undertaken.

Firstly, the relationship between a composer and his music has been problematised. In the 1960s, Michael Kennedy could write of Vaughan Williams's *Pastoral Symphony* that 'what he felt he put into the music' as if it was a self-evident truth.⁷⁷ In 1999, writing about Tippett's Concerto for Double String Orchestra, David Clarke suggests that analysis and historical reconstruction 'tend to resist conflation into a single narrative activity'. Looking at both the musical language and historical/biographical context 'may be mutually illuminating' but there will be 'two

resulting narratives' between which points of contact may be proposed, but 'their discreteness will also need to be respected.'⁷⁸ This general point, that the relation between the composer and his or her music is not fixed, is relevant to any analysis. Vaughan Williams's own view, that a composer's music should be at once truly a self-expression and expressive of the life of the community, contrasts with this. The composer also distrusted musical analysis, so there is always some distance between the content of an analytical study and the views of Vaughan Williams. The question then is how study of the music and the life relate to one another. In this study melodies that are of the character of folksong, and modal alterations are explored and both these depend upon some understanding of what influenced the composer. Many other concepts are derived from theory and analysis, offering a contrasting perspective. It is hoped that the distance between this study and the composer's own value-system will enable an original contribution to be made.

This leads to my second point, that any analysis is an interpretation rather than a statement of fact:

It seems right to acknowledge that structures are now understood to be asserted rather than discovered, that the analyst is more inclined than ever to see his or her work as the writing down of interpretations from a personal perspective, and that charting the discipline historically has been one catalyst in making the languages of analysis a focus of self-awareness for those who read and write with them.⁷⁹

This position is taken here, and raises my third question: how does analysis relate to theory? I have already stated that I aim to present theoretically-engaged analysis. This is clearly different from analysis which serves primarily to illustrate the utility of a particular theoretical proposition. On the one hand some have argued that analysis is moving closer towards criticism:

after a lengthy period during which it was preponderantly absorbed with issues of method and technique (in other words with problems of its own

generation), analysis is moving outwards to embrace the issues of value, meaning, and difference that increasingly concern other musicologists.⁸⁰

Hepokoski's writings on Sibelius illustrate this tendency, linking analysis of structure, with the political and cultural contexts of production. On the other hand, new theoretical developments have taken place in which analysis serves the function of illustrating the correctness of the theory. Transformational theory, and its off-shoot Neo-Riemannian theory, have been theoretically rather than analytically driven. Craig Ayrey recognised a dualism in contemporary analysis between increasingly sophisticated systematic theories of structure, and a questioning of the analytical canon and assumptions of structuralist theory prompting a turn to post-structuralist theory.⁸¹ Ayrey does not attempt to resolve this dualism, nor does that seem in any way necessary. Analysis can engage with theory at times, and then turn to different issues on other occasions.

The opportunity for interdisciplinary contact between music analysis and other subjects has opened, as the bond between theory and analysis has become more flexible. This has enabled psychoanalysis and Schenkerian analysis to interact in the analysis of a Schubert song, for example.⁸² Bloom's anxiety of influence has also opened a way into questioning established canonical values about the 'works' of 'great' composers.⁸³

While the methodologies of music analysis have diversified, the range of composers studied has also widened. It is relevant to this study to point out that one of the areas of particular attention has been those composers whose music does not fit into a shift from tonality to atonality during the late-romantic, early-modern period. Where some analysts are happy to draw 'a single but telling evolutionary branch in the history of chromaticization of tonal space and the development of compositional techniques for distributing this chromatic tonal space in event space'⁸⁴ through the

nineteenth century, recognition of composers such as Vaughan Williams must at the very least offer a wider context in which to locate such a line. This makes McCreless's question as to whether there are one or two tonal systems in the nineteenth century look unnecessarily deterministic.

Through these changes and developments in contemporary theory and analysis, the faith in unity as an ideal for music has been lost. Theory and analysis have broken free from the restrictive function of demonstrating the unity of works. Nevertheless a certain attachment to unity and defensiveness about pluralising elements sometimes surfaces. Answering an attack on Sibelius by Adorno, the editors of a recent volume find security not in rejection of the need for unity (or coherence), but in its relocation:

For, while Adorno's *aperçu* concerning the 'commonness' and 'disparateness' of Sibelius's 'foreground' thematic materials may contain a kernel of truth, his music attains synthesis precisely by attenuating a compensating coherence in the middle- and background.⁸⁵

Locating coherence in the middle- and background is a conventional analytical procedure, but the idea that it compensates does imply that something is lacking in the foreground. The possibility that juxtaposition might replace integration should remain open.

The themes I have briefly highlighted do not constitute a complete description of contemporary theory and analysis. Instead, these are some common characteristics of, and shared concerns between, analysts studying music which would not otherwise prompt comparison. To summarise, the following views are all significant: diversity of method, a larger number of composers being studied, interdisciplinary contact, freedom to interpret a relation between a composer and their music, relocating unity, new theoretical developments, and a preference for interpretation over factual assertion.

This study now proceeds with these points in mind, as well as the historical and contextual studies, and the analyses of Vaughan Williams's music, which were discussed earlier in the chapter. A different aspect of the composer's musical language is analysed in detail during each of the following chapters. All of these elements have been identified as significant features of Vaughan Williams's music in critical commentaries. None has previously been explored at length. One element, tonal centricity, will emerge as the most recurrent feature in these discussions, and so it forms my starting point.

ENDNOTES

¹ Jim Samson, *Music in Transition: A Study of Tonal Expansion and Atonality, 1900-1920* (London: Dent, 1993 [1977]).

² James Day, *Vaughan Williams*, 2nd ed (Oxford: Oxford University Press, 1998); Michael Kennedy, *The Works of Ralph Vaughan Williams*, 2nd edn (Oxford: Clarendon Press, 1980); Wilfrid Mellers, *Vaughan Williams and the Vision of Albion* (London: Barrie and Jenkins, 1989); Hugh Ottaway, *Vaughan Williams Symphonies* (London: BBC, 1972).

³ Dates of composition are given at the first mention of each work, based on Kennedy, *A Catalogue of the Works of Ralph Vaughan Williams*, 2nd edn (Oxford: Oxford University Press, 1998).

⁴ Ottaway, *Vaughan Williams's Symphonies*, p. 5.

⁵ Lewis Foreman, 'Restless Explorations: Articulating Many Visions', in Lewis Foreman, ed., *Vaughan Williams in Perspective* (Illminster: Albion Press for the Vaughan Williams Society, 1998), pp. 3-4.

⁶ Kennedy, *The Works*, p. 169.

⁷ Oliver Neighbour, 'The Place of The Eighth in Vaughan Williams's Symphonies' in Alain Frogley, ed., *Vaughan Williams Studies* (Cambridge: Cambridge University Press, 1996), p. 233.

⁸ Alain Frogley, and Hugh Ottaway, 'Vaughan Williams' in Stanley Sadie and John Tyrrell, eds, *New Grove Dictionary of Music and Musicians*, 2nd edn (London: Macmillan, 2001), pp. 345-61.

⁹ Cecil Gray (1924) in Peter Evans, 'Instrumental Music I', in Stephen Banfield, ed., *The Blackwell History of Music in Britain: The Twentieth Century* (Oxford: Blackwell, 1995), pp. 179-277.

¹⁰ Peter Evans, 'Instrumental Music I', p. 181.

¹¹ Ibid.

¹² Mervyn Cooke, 'Introduction' in *The Cambridge Companion to Benjamin Britten* (Cambridge University Press, 1999), p. 2.

¹³ Britten quoted in Humphrey Carpenter, *Benjamin Britten: A Biography* (London: Faber, 1992), p. 51.

¹⁴ David Clarke, "'Only Half Rebelling": Tonal Strategies, Folksong and "Englishness" in Tippett's Concerto for Double String Orchestra', in David Clarke, ed. *Tippett Studies* (Cambridge: CUP, 1999), p. 25.

¹⁵ Kees Bakels, Sir Adrian Boult (twice), Sir Andrew Davis, Bernard Haitink, Vernon Handley, André Previn, Leonard Slatkin and Bryden Thomson.

¹⁶ Conducted by Richard Hickox.

¹⁷ Simon Heffer, *Vaughan Williams* (London: Phoenix, 2001), p. 148.

¹⁸ Ibid., p. 116.

¹⁹ Stephen Johnson speaking during 'In the Works', BBC Radio 3, broadcast February 2003.

²⁰ Roger Scruton, *England: An Elegy* (London: Pimlico, 2001), p. 11.

²¹ Alain Frogley, 'Constructing Englishness in Music: National Character and the Reception of Ralph Vaughan Williams', in Frogley, ed., *Vaughan Williams Studies*, pp. 12-13; Paul Harrington, 'Holst and Vaughan Williams: Radical Pastoral', in Christopher Norris, ed., *Music and the Politics of Culture* (London: Lawrence and Wishart, 1989), p. 112; Duncan Hinnells, 'Vaughan Williams's Piano Concerto: The First Seventy Years', in Foreman, ed., *Vaughan Williams in Perspective*, p. 120.

²² Frogley, 'Constructing Englishness', p. 13.

²³ Georgina Boyes, *The Imagined Village: Culture, Ideology and the English Folk Revival* (Manchester: Manchester University Press, 1993).

²⁴ Julian Onderdonk, 'Vaughan Williams and the Modes', *Folk Music Journal* 7/5 (1999), p. 613.

²⁵ Julian Onderdonk, 'Vaughan Williams's Folksong Transcriptions: A Case of Idealization?', in Frogley, ed., *Vaughan Williams Studies*, p. 138.

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- ²⁶ Onderdonk, 'Hymn Tunes from Folk-songs: Vaughan Williams and English Hymnody', in Byron Adams and Robin Wells, eds, *Vaughan Williams Essays* (Aldershot: Ashgate, 2003), p. 124.
- ²⁷ Harrington, 'Holst and Vaughan Williams', pp. 124-5.
- ²⁸ Ibid., p. 115.
- ²⁹ Hinnells, 'Vaughan Williams's Piano Concerto', p. 162.
- ³⁰ James Hepokoski, 'Fiery-Pulsed Libertine or Domestic Hero? Strauss's Don Juan Reinvestigated' in Bryan Gilliam, ed., *Richard Strauss: New Perspectives on the Composer and His Work* (Durham: Duke UP, 1992), pp. 135-76; *Sibelius: Symphony No. 5* (Cambridge: CUP, 1993).
- ³¹ Hinnells, 'Vaughan Williams's Piano Concerto', p. 162.
- ³² Christopher Butler, *Early Modernism: Literature, Music and Painting in Europe, 1900-16* (Oxford: Clarendon Press, 1994), p. 260.
- ³³ Frank Trentmann, 'Civilization and Its Discontents: English Neo-Romanticism and the Transformation of Anti-Modernism in Twentieth-Century Western Culture', *Journal of Contemporary History* 29 (1994), p. 584.
- ³⁴ Ralph Vaughan Williams, 'Who Wants the English Composer?' reprinted in Hubert Foss, *Ralph Vaughan Williams* (London: George G. Harrap, 1950), pp. 200-01. Originally published in *Royal College of Music Magazine*, 9/1 (1912).
- ³⁵ Ibid., p. 596.
- ³⁶ Ibid., p. 610.
- ³⁷ Meirion Hughes and Robert Stradling, *The English Musical Renaissance, 1860-1940 : Constructing a National Music*, 2nd edn (Manchester: Manchester University Press, 2001); Alain Frogley, 'Rewriting the Renaissance: History, Imperialism, and British Music Since 1840', *Music and Letters* 84/2 (2003): 241-57.
- ³⁸ Robert Stradling, 'England's Glory: Sensibilities of Place in English Music, 1900-1950', in Andrew Leyshon, David Matless and George Revill, eds, *The Place of Music* (New York: Guildford Press, 1998), p. 184.
- ³⁹ Hughes and Stradling, p. 192.
- ⁴⁰ Ibid., pp. 156-60.
- ⁴¹ Ibid., p. 192.

⁴² George Revill, 'The Lark Ascending: Monument to a Radical Pastoral', *Landscape Research* 16/2 (1991), 25-30.

⁴³ Berman's 'modernist pastoral' is proposed in a reading of Charles Baudelaire's preface to 'Salon of 1846', titled 'To the Bourgeois'. Berman proposes that 'this pastoral vision proclaims a natural affinity between material and spiritual modernization; it holds that the groups that are most dynamic and innovative in economic and political life will be most open to intellectual and artistic creativity ... it sees both economic and cultural change as unproblematical progress for mankind.' *All That is Solid Melts Into Air* (London: Verso, 1983), p. 135-6. Baudelaire's 'To the Bourgeois' in Baudelaire, *Art in Paris 1845-62*, trans. and ed. Jonathan Mayne (London: Phaidon, 1965), pp. 41-3.

⁴⁴ Edward Macan, Review of Frogley, ed., *Vaughan Williams Studies*, *Current Musicology* 63 (2000), p. 103.

⁴⁵ Frogley, 'H. G. Wells and Vaughan Williams's A London Symphony: Politics and Culture in Fin-De-Siècle England', in Chris Banks, Arthur Searle and Malcolm Turner, eds, *Sundry Sorts of Music Books: Essays on the British Library Collections* (London: British Library, 1993), pp. 302-3.

⁴⁶ *Ibid.*, p. 305.

⁴⁷ Jennifer Doctor, "'Working for her own Salvation": Vaughan Williams as Teacher of Elizabeth Maconchy, Grace Williams and Ina Boyle' in Foreman, ed., *Vaughan Williams in Perspective*, pp. 181-201.

⁴⁸ Stephen Banfield, 'Vaughan Williams and Gerald Finzi' in Foreman, ed., *Vaughan Williams in Perspective*, pp. 202-21.

⁴⁹ Charles Edward McGuire, 'Vaughan Williams and the English Music Festival: 1910', in Adams and Wells, eds, *Vaughan Williams Essays*, pp. 235-68.

⁵⁰ Hugh Cobbe, 'Vaughan Williams, Germany, and the German Tradition: A View from the Letters', in Frogley, ed., *Vaughan Williams Studies*, pp. 81-98.

⁵¹ Jeffrey Richards, 'Vaughan Williams, the Cinema and England', in *Films and British National Identity: From Dickens to Dad's Army* (Manchester: Manchester University Press, 1997), pp. 283-325.

⁵² Daniel Goldmark, 'Music, Film and Vaughan Williams', in Adams and Wells, eds, *Vaughan Williams Essays*, pp. 207-34.

⁵³ Roger Savage, 'Vaughan Williams, the Romany Ryes, and the Cambridge Ritualists', *Music and Letters* 83/3 (2002), 383-418; Alison McFarland, 'A Deconstruction of William Blake's Vision: Vaughan Williams and Job', *International Journal of Musicology* 3 (1994), pp. 339-71. The following are all in Adams and Wells, eds, *Vaughan Williams Essays*: Stephen Town, "'Full of Fresh Thoughts": Vaughan Williams, Whitman and the Genesis of A Sea Symphony', pp. 73-102; Daniel Hallmark, 'Robert Louis Stevenson, Ralph Vaughan Williams and their Songs of Travel', pp. 129-56; Nathaniel G. Lew, "'Words and Music That Are Forever England': The Pilgrim's Progress and the Pitfalls of Nostalgia', pp. 175-206.

⁵⁴ Lionel Pike, 'Tallis - Vaughan Williams - Howells: Reflections on Mode Three' *Tempo* 149 (1984), p. 13.

⁵⁵ Pike, 'Rhythm in the Symphonies: A Preliminary Investigation', in Frogley, ed., *Vaughan Williams Studies*, pp. 166-86.

⁵⁶ Edward Macan, 'An Analytical Survey and Comparative Study of the Music of Ralph Vaughan Williams and Gustav Holst, c. 1910-1935' (PhD diss., Claremont Graduate School, 1991).

⁵⁷ Macan, "'the Spirit of Albion" in Twentieth-Century English Popular Music: Vaughan Williams, Holst and the Progressive Rock Movement', *Music Review* 53/2 (1992), 100-25.

⁵⁸ Walter Aaron Clark, 'Vaughan Williams and the "Night Side of Nature": Octatonicism in *Riders to the Sea*', in Adams and Wells, eds, *Vaughan Williams Essays*, p. 68.

⁵⁹ Murray Dineen, 'Vaughan Williams's Fifth Symphony: Ideology and Aural Tradition', in Adams and Wells, eds, *Vaughan Williams Essays*, pp. 17-18; Pike, *Vaughan Williams and the Symphony* (London: Toccata Press, 2003), p. 157.

⁶⁰ Adams, 'The Stages of Revision of Vaughan Williams's Sixth Symphony', in Adams and Wells, eds, *Vaughan Williams Essays* (Aldershot: Ashgate, 2003), pp. 1-16.

⁶¹ Frogley, *Vaughan Williams's Ninth Symphony* (Oxford: OUP, 2001).

⁶² *Ibid.*, p. 300.

⁶³ Adams, 'The Stages of Revision', p. 15.

⁶⁴ Adams, 'Preface' to Adams and Wells, eds, *Vaughan Williams Essays*, p. xvii. '[Forster] had always liked and admired Vaughan Williams and would speak of him as a "noble" man, though he thought him chuckle-headed – a "goose" – in matters of judgement.' This remark is noted by Adams, and comes

from P. N. Furbank, *E. M. Forster: A Life. Vol. 2, Polycrates' Ring (1914-1970)* (London: Secker and Warburg, 1978), p. 226.

⁶⁵ Ibid., p. xxi.

⁶⁶ Dineen, 'Vaughan Williams's Fifth Symphony', p. 25.

⁶⁷ Clark, 'Vaughan Williams and the "Night Side of Nature"', p. 69.

⁶⁸ Goldmark, 'Music, Films', p. 227.

⁶⁹ Stephen Town, "'Full of Fresh Thoughts'", p. 92.

⁷⁰ Adams, 'The Stages of Revision', p. 15.

⁷¹ Lew, "'Words and Music'", p. 200.

⁷² Peter Barry proposes 'ten tenets of liberal humanism' in *Beginning Theory: An Introduction to Literary and Cultural Theory*, 2nd edn (Manchester: Manchester University Press, 2002), pp. 16-21. To summarise: good literature is of timeless significance, meaning is contained within the text itself, text must be detached from context, human nature is essentially unchanging, individuality is our unique 'essence', literature propagates humane values, form and content must be fused, good text is 'sincere', words should enact their meaning, and, criticism should mediate between the text and the reader. In the rest of this textbook, Barry shows how these values contrast with theoretical approaches in literary and cultural studies in recent decades. The values of liberal humanism, characterised by Barry, are often reproduced by the contributors to *Vaughan Williams Essays*, following the assumptions made by Howes, Kennedy, Day and Ottaway.

⁷³ Pike, *Vaughan Williams and the Symphony* (London: Toccata Press, 2003), p. 45.

⁷⁴ Ibid., p. 320.

⁷⁵ Chris Kennett, 'Compromise, Conflation and Contextualism in English Music(ology)', *Music Analysis* 19/2 (2000), p. 258.

⁷⁶ Ibid., p. 259.

⁷⁷ Kennedy, *The Works*, p.157.

⁷⁸ Clarke, 'Only Half Rebellious', p. 1.

⁷⁹ Anthony Pople and Ian Bent, 'Analysis', in Sadie and Tyrrell, eds, *New Grove*, 2nd edn, vol. 1, p. 570.

⁸⁰ Nicholas Cook & Mark Everist, 'Preface' in *Rethinking Music* (Oxford: OUP, 1999), p. xii.

⁸¹ Craig Ayrey, 'Debussy's Significant Connections: Metaphor and Metonymy in Analytical Method', in Anthony Pople, ed., *Theory, Analysis and Meaning in Music* (Cambridge: CUP, 1994), p. 127.

⁸² Christopher Wintle, 'Franz Schubert, *Ihr Bild* (1828): A Response to Schenker's Essay in *Der Tonwille*, Vol. 1', *Music Analysis* 19/1 (2000), pp. 10-28.

⁸³ Kevin Korsyn, 'Brahms Research and Aesthetic Ideology', *Music Analysis* 12/1 (1993), 89-103; Joseph N. Straus, *Remaking the Past: Musical Modernism and the Influence of the Tonal Tradition* (Cambridge, Mass.: Harvard University Press, 1990).

⁸⁴ Patrick McCreless, 'An Evolutionary Perspective on Nineteenth-Century Semitonal Relations', in William Kinderman and Harald Krebs, eds, *The Second Practice of Nineteenth-Century Tonality* (Lincoln: University of Nebraska Press, 1996), p. 98.

⁸⁵ Timothy L. Jackson, and Veijo Murtomäki, eds, *Sibelius Studies* (Cambridge: CUP, 2001), p. xix.

Chapter 2

Tonality and Modal Pitch Resources

In common-practice tonality, tonal centres depend upon the hierarchical relationship of scale degrees and familiar harmonic functions of diatonic and chromatic chords for their stability. Where alterations to scale degrees persist, they usually indicate a modulation to another stable tonal centre. So what happens to the stability of the tonic when other scale degrees are modally altered? As this music is violating a convention of tonality (the identity of scale degrees) it is not tonal: there is a distance between common-practice tonality and modally influenced material. Nevertheless, tonal centricity still plays a crucial role in the music. Five of Vaughan Williams's symphonies refer to keys in their titles, for example. But how and when is the centricity of particular pitches established and sustained?

The most significant investigation of these questions with regard to eighteenth- and nineteenth-century music is found in the writings of Heinrich Schenker. This chapter will draw on Schenkerian analysis, with awareness of the differences between the conventions of common-practice tonality and Vaughan Williams's music. Proposing exactly where and how Schenkerian tonal procedures break down, or are compromised, will be central to the argument. Equally, elements of Schenkerian theory that are more straightforwardly applicable will be considered. The music selected for discussion covers a wide range of genres and dates of composition. Modal scales and tonal centricity have roles to play in each example. In some works by Vaughan Williams it might be considered inappropriate to identify tonal centres. Such music is reserved for discussion in Chapters Three and Four. In this chapter, Schenkerian theory offers a way into analysing tonal centricity in a

modal context. Schenkerian norms will not be retained as a benchmark. Instead, the analytical discussions in this chapter lead to the proposal that where modal resources and tonal centricity interact, this music can be understood in terms of a ‘modalised tonality’.

Schenker and Vaughan Williams

There are clear differences between the ‘Bach-to-Brahms’ Schenkerian canon and Vaughan Williams’s music. Certainly an *Ursatz* will not form the background level of a complete voice leading graph for many works by Vaughan Williams because the dominant rarely performs a structural role in his music. However, modal alterations can, to a certain extent, be accommodated from a Schenkerian perspective. In *Free Composition*, Schenker states that ‘[a]t the later levels, the $\hat{2}$ can be rectified by the diatonic $\sharp 2$ ’. However, ‘once the diatonic structure of a composition is firmly established, the composer can, for the sake of a special effect, place a $\flat 2$ even at the end, as though the entire piece were in the Phrygian mode’.¹ These comments show that Schenker is willing to admit some variance from the diatonic norm. These modal variants accommodate Chopin’s mazurkas, but diatonicism remains central to Schenker’s analytical method and aesthetic system. In Vaughan Williams’s music, modal alterations are not just local, but frequent, and sometimes consistent. This problematises the term modal ‘alteration’, a point that will be addressed later in this chapter.

Schenker’s conception of what a piece of music is, or should be, is ‘rooted’ in ‘the concept of organic coherence’,² which is revealed by graphical analysis. He compared directly the course of a musical work with the experience of human life:

we perceive our own life-impulse in the motion of the fundamental line, a full analogy to our inner life. ... The *goal* and the course to the goal are primary. Content comes afterward: without a goal there can be no content.

In the art of music, as in life, motion toward the goal encounters obstacles, reverses disappointments, and involves great distances, detours, expansions, interpolations, and, in short, retardations of all kinds. Therein lies the source of all artistic delaying, from which the creative mind can derive content that is ever new. Thus we hear in the middleground and the foreground an almost dramatic course of events.³

The contrast between this vision of the musical work and one of Vaughan Williams's most popular compositions, *The Lark Ascending*, is stark. The masterwork is goal-directed; there is a template, however flexible, which the piece follows in order to reach its conclusion. The description of 'an almost dramatic course of events' suggests the idea of narrative, such as an extra-musical programme or the playing out of a formal plan. Following the tonal direction of the work through middleground prolongations and the descent of the *Urlinie* can form a similarly focussed listening guide.

The Lark is definitely not goal-directed. Rather than a directed motion towards a point of arrival, the goal of the piece is the representation of the lark. The main focus is always on the soloist, and there is a sense of distance between this part and the orchestral accompaniment. The representation of a self-contained, idealised subject results in a piece of music that is not concerned with goal direction and narrative flow in this case. For example, melodies are often repeated more than they are developed. In formal terms, *The Lark* employs an ABA' design. Cadenzas mark the start and end of the piece and the end of the A section. The solo violin is more virtuosic in the B section than the outer A sections, and this creates some sense of focus, but the clinching dramatic climax, resolution of a large-scale tonal tension, or decisive point of closure that characterises 'tonal masterworks' never occurs.

Through this discussion I am not expressing a preference for either *The Lark* or tonal masterworks. The aim of the comparison is to highlight the differences

between the two. The *Ursatz* claims unity as necessary for the artwork's success, an analytical expression of the organicist aesthetic. *The Lark* contrasts the transcendent individual against a supporting background. The piece has a central concept, the lark's representation, but enacting a unifying process through the musical argument is not essential, as it is in a Schenkerian analysis. *The Lark*'s focus is outside the piece, a point emphasised by the inconclusive ending in a high unaccompanied cadenza, while Schenker emphasises the interrelation of the musical materials.

Schenker's 'masterworks' and Vaughan Williams's *Lark Ascending* can be regarded as two poles, one representing the aesthetics of organicism, featuring achievement of the goal, the other a paradigm of escape. Later in this chapter I will further explore the *Lark*, seeking a greater understanding of Vaughan Williams's harmonic and tonal strategies. Are they all 'simple' escape, or do they feature 'detours', 'expansions', and 'motion toward the goal'? Before analysing the *Lark* in the light of Schenkerian analysis, I will discuss a previous analysis of some music by Vaughan Williams, some more recent Schenkerian literature on other composers' music, and consider the impact of modality on tonality in some other compositions by Vaughan Williams. This will establish the analytical and musical contexts for an analysis of the *Lark*.

Salzer's Schenker

The differences between the *Ursatz* and *The Lark* may be irreconcilable but can Schenkerian notions of voice leading and prolongation play some role in Vaughan Williams's music as a whole? Vaughan Williams's music has received very little attention from a Schenkerian perspective. An analysis of three bars from the first movement of the Fifth Symphony by Felix Salzer is the only published Schenkerian analysis of Vaughan Williams's music.

His graph of bars 6.3-6.5 is reproduced here as Ex. 2.1.⁴ It illustrates an explanation of how to analyse sequences of fifths in *Structural Hearing*. Salzer warns:

One must beware of reading the descending fifth technique indiscriminately and of ignoring the possibility that the sequence of chords so related may reach an end even though followed by one or two chords a fifth apart; for these chords may be members of the harmonic structure.⁵

The example shows a sequence of descending fifths in the bass ending on F#. The fifths sequence could be shown to continue, after a break of two beats, with the B in bar 6.5, finishing on the following E. Salzer's graph appears a perfectly straightforward demonstration of this point. In this context, the extract seems very similar in harmonic function to the following example, which is taken from a Mozart rondo.

There is an important difference between the functional harmony of Mozart and the phrase by Vaughan Williams, however. Salzer draws no attention to the fact that the penultimate chord in Ex. 2.1 is the dominant minor, and it is treated in the same way an unaltered dominant would be. The importance of the dominant chord is clear in Schenker's theory and its modal adjustment in bar 6.5 reduces the sense of closure achieved by this phrase. The major chord at the end of bar 6.5 is not a *tierce de picardie* effect at the end of a phrase in E minor, as the graph suggests. The first chord of bar 6.3 is altered from E major to E minor by Salzer. This E major tonic chord is then followed by a temporary tonicization of G (there is a ii-V⁷-I cadence in G major in bars 6.3-6.4). The continuation of the fifths sequence is heard in the key of G: chord IV⁷ at bar 6.4², chord vii⁷ at bar 6.4³. Here there is a return to E but now the Aeolian scale is used. Bar 6.4³ is chord ii⁷, 6.4⁴ chord i, and the phrase ends iv⁷-v⁷-I. An alternative to Salzer's graph is given in Ex. 2.2. This analysis shows the tonicization of G more clearly than Salzer's. The first beat of bar 6.5 is now read as iv⁷ rather than ♯ on A as it is by Salzer.⁶ However the effect of E Aeolian is still not

clearly communicated. There are two issues: firstly, the less strong close to the phrase due to the dominant minor chord; secondly, the pitch resource of E Aeolian is the same as the preceding G major, further reducing the clarity of tonal motion. These differences between the phrases by Mozart and Vaughan Williams are totally eliminated in Salzer's analyses, yet they are crucial to understanding the shifting pitch resources and differing strengths of tonal centrality. The abundance of fifth relations in the bass line does suggest conventional tonality, while the introduction of a modal scale counters conventional tonal practice. Whittall, drawing on Wilfrid Mellers's description of Vaughan Williams as a 'double man', makes this point:

All the hard-won subtlety of Vaughan Williams's 'doubleness' - in this instance, the interplay of tonality and modality, of monotonicity and modulation, by way of highlighted third-relations which are the more significant given the absence of E minor's 'correct' leading note - is lost in Salzer's dogmatically single-minded hierarchization of the music. He is perfectly right to observe that one way in which this passage functions is an expansion of a cadential progression, but for Vaughan Williams, to expand is to enrich, and even to undermine, as much as to reinforce.⁷

My graph attempts partly to address this concern, but it still does not communicate reduced stability, and a sense of the preceding G major passing cadence colouring the arrival in E. To analyse the harmonic procedures of these three bars requires reference to their context. They occur in the second subject section of the exposition. This section follows the opposition of C and D at the opening of the symphony, so that the clear establishing of E major at the start of the second subject section offers a stability contrasting with the preceding defeat of the tonic D major by C (Ex. 5.11 gives the opening bars of the symphony where the conflict starts). The way in which E major is established also has significance for an analysis of the cadence at bars 6.3-5.

The diatonic E major scale is the pitch resource for bars 5.1-6.3¹. Chords of either ii⁷ or IV alternate with chord I or I⁷. If chord ii⁷ is regarded as a substitute for the subdominant (vi⁺⁶), then E major is established and sustained entirely through

plagal progressions (the only other chords during bars 5.1-6.3¹ are vii⁹ at bar 5.6⁴ and vi⁷ at bar 5.7¹). The use of the dotted rhythm invites comparison with the movement's opening horn call figure. Here, the tonic-dominant motion of the horn call is disrupted by the flattened leading note pedal. The C in the bass prevents D from establishing itself as the tonic, and the dominant from functioning. This comparison of failed I-V-I progressions at the opening with successful I-IV-I progressions in the second subject section shows the subdominant succeeding to establish and sustain a tonal centre after the dominant failed. This makes the occurrence of fifth-based harmony in the second subject section at bar 6.3 a significant contrast with the unproblematic plagal establishment of E in the preceding bars. In my Schenkerian graph these contrasting harmonic strategies are subsumed within one structure which means that the graph needs to be qualified by the remarks in this textual commentary. If it was detached from this context, the graph would be misleading. Ironically (from a Schenkerian perspective) there is a greater sense of functionality at the start of the passage, where plagal progressions are prominent, than at the end, where fifth-based movement occurs.

The music following bar 6.5 provides a further context for the extract analysed by Salzer. The return of E major (chord I alternating with ii and ii⁷) at bar 6.5³ contrasts with the preceding E Aeolian cadence, but this is shortly interrupted by a temporary tonicization of G and movement by fifths in the bass (bars 6.7²-6.8¹). This differs from the preceding tonicization of G in two ways. Firstly, there are clearer parallel fifths in the bass. Secondly, the strength of the V-I progression is compromised by an added sixth. The parallel chords emphasise those three notes which are shared by the V⁺⁶ and I⁷ chords, in this case D, F[#] and B. Of course V⁺⁶ is also III^{7b} and suggests third rather than fifth motion. The G tonicization is followed

by a similar tonicization of C (bars 6.8¹-6.9¹), and subsequently E Phrygian and E Aeolian. The pitch resource of E Aeolian differs from C major by one note (F natural becomes F[♯]) and so there is a greater sense that the tonal orientation has shifted than there was when G major was followed by E Aeolian. The blurring of the cadences in G and C is significant because it reduces their functionality, so that the v⁷-I(bare octaves) in E Aeolian at bars 6.10-6a.1 sounds like an arrival by comparison. However the arrival is still less functional than the establishing plagal progressions at the start of the section.

Considering the movement as a whole, Whittall writes:

My proposal here is ... that the music moves between different orientations; it is, in a sense, purposefully non-committal, and to interpret it in terms of a single strategy, such as degrees of concealment of an all-pervading D tonic, is excessively reductive.⁸

The second subject section clearly sustains E, despite the internal shifting strategies, and as such is a challenge to the symphony's tonic. Modal 'alterations', heard against the preceding E major, mean that the prolongation of this pitch centre varies in strength. This is not to say that the structure lacks consistency or is faulty in some way. Instead, different harmonic progressions and different scales, as well as different tonal centres interact in this music. It is notable that what stops the Schenkerian graph from providing a fuller account is not dissonance, but a reduction in functionality by the introduction of modal alternatives. In the second subject section, it is clear that E is more firmly established at the start of the section and this stability is challenged by modulations followed by less functional modal cadences. Functionality does not suddenly become irrelevant: instead passages of greater and lesser tonal direction are juxtaposed. The reduction of these details can mask the subtle differences between these tonal strategies. These differences mean that Schenkerian theory must be qualified, not simply applied, when analysing Vaughan Williams's music.

Schenker Studies

The extension of Schenkerian theory to post-tonal music demands consideration of methodological issues that are also pertinent in this context. The viability of prolongation, voice leading and the dominant-tonic polarity have been considered by a number of analysts attempting Schenkerian graphs of some highly dissonant music. The assumption is usually made that the music analysed lies on a path between tonality and post-tonality. For this reason music by Liszt and Scriabin is analysed, especially where it can be interpreted as an important precursor of post-tonality. Vaughan Williams's music, whilst dissonant at times, does not stand on such a path. As illustrated by the short passages from the Fifth Symphony, tonality is often brought into contact with modal pitch resources. But pitch centricity remains a vital element of this music. Analysis of late or post-tonal music from a Schenkerian perspective provides a useful context for the analysis of tonality in Vaughan Williams's music. The following questions are explored in the literature: When does prolongation cease to occur? Can dissonance be prolonged? Does a proposed graph fully account for the pitch materials within it? Are there alternatives to the *Ursatz* which function as a background level? What is the role of the dominant? These questions are equally relevant to the analysis of Vaughan Williams's music.

Robert Morgan's 'Dissonant Prolongation' is hazy on the crucial issue of when such prolongation occurs:

The question of whether a passage represents a full-fledged structural prolongation of a dissonance is often a matter of degree, dependent on the structural level on which the composition is considered.⁹

This raises the question of when to stop analysing from a Schenkerian perspective. Conventionally, all of the notes in a graph are hierarchically subsumed within the structure. Clearly this does not happen when only some elements have been accounted

for in this way. James Baker, while criticising Robert Morgan, has presented graphs which cannot be detached from the qualifying remarks made in the accompanying commentaries. A graph of Scriabin's 'Enigme', is contextualised by the remark that 'tonal forces are nevertheless responsible in large part for the overall coherence of the work.'¹⁰ In a later article he offers 'two different hypothetical readings of tonal structure' in one piece, positioning these 'as a final and purely speculative phase of the analysis, [where] I considered how the underlying structural elements already disclosed might correspond with Schenker's models of fundamental tonal structure.'¹¹ A further example of this dilemma is illustrated by this comment by Robert Morgan in an article on Liszt's *Blume und Duft*:

Add to the dominant aura of A_b the absence of a single dominant *to* A_b, and we understand how tenuous the tonality is, despite the relatively clear prolongational structures graphed.¹²

Again, commentary is required to explain the role of the graphs – they are not analyses of the same musical processes that can be found in Schenker's 'tonal masterworks'. Such commentaries are offered in order to account for the significance of graphs, as they are acknowledged not to give a full account of the pitch organisation operating in the pieces analysed. A further analytical problem arises when the dominant is rarely present, and/or does not seem to operate in a functional way. Whole-tone chords based on the tonic or dominant, for example, may be functional to some extent, but there is clearly a difference between the ability of these chords to perform a harmonic function compared with the unaltered dominant chord in diatonic progressions.

The interplay of modes and tonality is a significant feature of Debussy's musical language. Richard Parks's study of this composer's music explores this by combining Schenkerian and pitch-class set approaches, where octatonic sets are found

to be prominent amongst the harmonic resources employed.¹³ Like Parks, Joseph Straus seeks to combine Schenkerian perspectives with pitch-class set theory. Straus gives an explicit list of criteria for when to stop analysing from a Schenkerian perspective, and advocates an associational approach combining aspects of pitch class set theory, developing middleground structures for post-tonal compositions on the basis of these associations. He turns away from this in a more recent article, however, arguing for a method based on transformation theory.¹⁴

The analysts discussed in this summary all have to confront ‘increasing’ dissonance and chromaticism in the music they choose to analyse. Dissonance is seen to stand in the way of fuller analysis from a Schenkerian perspective. This is not the only variable that can challenge the viability of prolongation:

one can argue convincingly that, with the great expansion in the scale of ambitious musical discourse over the course of the nineteenth century, global harmony loses its identity as primary structure in many larger movements, including many that are overtly monotonal. ... In more specific terms, the fact of beginning and ending in the same key may lead to an experience only of *return to*, and not of the *motion within* or *prolongation of* that, properly speaking, constitutes monotonicity.¹⁵

Tonality, and its main theoretical approach, Schenkerian analysis, can lose their grip on music because of increased dissonance, and because other structural parameters seem more important. Is bitonality a viable alternative? Daniel Harrison examines the resistance to bitonality from theorists in an article on Milhaud, but drawing on some pitch class techniques is able to propose ‘tonal regions without sure centers.’¹⁶ A more resistant position is advocated by Dunsby and Whittall:

We believe that, while it is perfectly possible for a composer to juxtapose tonality (diatonic, extended or implied) with atonality within one composition, the superimposition of one tonality on another actually creates atonality. One tonality cannot integrate with another, and the notion of simultaneous, independent functionalities is a contradiction, not an enhancement, of tonality’s true, unitary nature.¹⁷

As well as positioning bitonality, the authors offer a description of tonality in this quotation. The non-integrative quality of the tonality they recognise raises a pertinent issue: what happens when music is related to tonality but does not consistently adhere to the conventions of common-practice tonality? This is similar to the questions asked when applying Schenkerian methods to post-tonal music: When does the graphing stop? How are the notes left over accounted for?

Repeatedly, the same answer is given. Discussing tonal-like configurations whose functionality is questionable, Baker says ‘their precise roles within a conventional hierarchical tonal structure must always be specified. If no such explanation is possible, a basis in another type of structure must be sought.’¹⁸ Dunsby and Whittall generalise this issue:

The Schenkerian analyst is faced with the need to determine when a fundamental structure may be said, definitively, to have disappeared; and music theory has yet to propose a comprehensive, consistent set of principles that can be applied analytically, and effectively, to the large amount of music whose tonality is extended rather than diatonic, yet whose points of contact with diatonicism still remain, to the ear, evident and vital.¹⁹

Alain Frogley makes a similar point about his musical analysis:

[These observations] do not proceed from a highly developed theoretical basis: such a basis appropriate to Vaughan Williams’s music has yet to be developed.²⁰

All these very different writers assume there are organisational principles underlying this ‘problem’ music, it is just that no-one has worked out what they are yet. Clearly the range of music that falls into this category is much larger than that studied in this thesis. It seems likely that a range of localised approaches will provide insights rather than a totalising theory. Rather than seek a new principle that will explain Vaughan Williams’s approach to pitch organisation, I will seek to understand his music in relation to existing concepts. Such an approach is analytically rather than theoretically

led. Yet this is not a move away from theory. Instead an analytically driven approach can lead directly to engagement with theoretical and meta-theoretical issues.

Clearly, tonality plays some significant role in Vaughan Williams's music. The idea of music being related to, but not being, tonal requires some reflection. It led to Dunsby and Whittall rejecting bitonality as a term in favour of atonality because they did not wish to violate an understanding of tonality as 'true' and 'unitary'. There has been a strong association between musical unity and analytical discourse in the past. Fred Everett Maus emphasises this by stating that 'it would be wrong to identify discourse about musical unity with music-analytical discourse.'

For one thing, if analysis can display musical unity, then it must also have the capacity to display disunity. Any non-vacuous vocabulary for asserting close musical relationships also provides ways of denying those relationships - that is, ways of identifying differences. If one can assert, for instance, that two passages present motivically related material, then, by the same criterion of relatedness, it should be meaningful to assert that a third passage lacks that motivic feature. Consequently, if one wants to display, and perhaps praise, the heterogeneity of a composition, analysis could provide valuable descriptive tools. Analysts do not typically explore this possibility, but I suppose that reflects a habitual commitment to unity, not an inherent limitation of analytical techniques.²¹

Maus's comments are in need of qualification. Firstly, the assertion that analysis can 'display' musical unity suggests that the process of analysis is a neutral one, and the choices taken within analysis pre-determined or mechanistic. In fact, what analysis shows will depend on the analyst, the theory he or she chooses to draw on, the way in which he or she engages with that theory, and so on. Secondly, while it is true that analysis enables the assertion of relatedness, it is not *necessarily* meaningful to say that a third passage lacks that feature. It will depend on what happens in the third passage in comparison with the first two – is something suggested but not overtly stated that suggests the connection, for example? Thirdly, Maus does not historically locate what he calls 'a habitual commitment to unity'. In fact much recent analytical writing does not reveal such a commitment.

Given these qualifications, Maus makes a useful point: analysis can be an appropriate tool in the proposition of disunity. Some of the analysts and theorists quoted above suggested there must be some new theory (or at least some principles) which analysis has yet to develop that would step in to account for music which is not tonal. Atonality undermines the ‘true, unitary nature’ of tonality, identified by Dunsby and Whittall. But this undermining does not only occur in different systems of organising pitch materials. Disunification of tonality, or tonal resistance, may be enacted through a piece of music. This music may be very close to conventional tonality; it may contain passages of tonal writing juxtaposed with other approaches. Vaughan Williams’s music features such musical processes, as illustrated by the discussion of the Fifth Symphony’s second subject.

Tonal resistance does not necessarily lead to atonality, of course. Whittall analyses tonal resistance in Tippett’s music, proposing a number of different relationships with tonality.²² Other principles of pitch organisation can be invoked simultaneously, compromising any claim for tonality as a unitary system in such contexts. Modal materials are often utilised in Vaughan Williams’s music, yet these do not function as a musical system called ‘modality’, in the way that tonal pitch resources are organised within ‘tonality’. The relation of modal pitch resources and tonality is explored in this composer’s music in a historical context where tonality has been the dominant musical system in classical music for 200 years, and modal scales are associated with English renaissance church music and folksong.

Modalised Tonality

Hearing modal pitch resources in a tonal context was unavoidable in the twentieth century. This combination of tonal centricity and modal scales opens a range of possible tensions and ambiguities. The term ‘modal alteration’ indicates that modal

elements in twentieth-century music can be meaningfully understood from a tonal perspective. Ex. 2.3 gives the seven modal scales. Following down the page, each mode contains a degree one semitone lower than in the scale above. Firstly the 4th degree is lowered, then the 7th, 3rd, 6th, 2nd and finally the 5th.

Given that there is a different mode starting on every diatonic note of C major, it can be deduced that the seven notes of any modal scale provide the pitch resource for six other scales, one starting on each scale degree. The seven pitches of the Lydian mode starting on C are the same seven pitches that comprise the diatonic major scale on G, and the Mixolydian mode starting on D, for example. A fixed collection of seven pitches could articulate seven different modal scales. By contrast, a fixed tonal centre could be the basis for seven different modal scales. Neither extreme can be found in Vaughan Williams's music, but a range of modally-influenced tonal strategies between these poles are used. A stable pitch collection does not necessarily imply stability of the tonal centre. A stable tonal centre does not necessarily imply stability of scale degrees.

As mentioned above, 'modality' is not being offered as an alternative to 'tonality'. Instead the relation of modal elements and tonal centricity is being explored in order to suggest some characteristics of 'modalised tonality'. In the previous example from the fifth symphony, an E major passage was followed by modal elements. The context invited comparison of a modal flattened 7th with its diatonic alternative. As the major seventh degree had been heard, the subsequent flattened 7th was called a 'modal alteration'. When the seven modal scales were abstractly presented in Ex. 2.3, the diatonic major scale provided a convenient benchmark for comparison of the scales' differing properties. Against that benchmark, some scale degrees appeared to be 'alterations'. The diatonic major scale benchmark is not

always close at hand in Vaughan Williams's music. This creates a quite different context from the abstract example, or the second subject section of the Fifth Symphony. Scale degrees may be consistently altered. For example the Dorian scale could be used for an entire passage. Or, there may be frequent fluctuation between the two versions of the scale degree, so that there is no main version to be altered. Finally, the modal version of the scale degree may be heard as normal, so that occasional appearances of the diatonic version sound as an alternative. This range of possibilities creates a problem with the term 'modal alteration'.

The point has been made that modal resources in nineteenth- and twentieth-century music are unavoidable heard against a tonal background. Clearly, tonality was normative in classical music at the end of the nineteenth century, and tonal music has continued to have a prominent place in Western culture since then. While this background offers a way into thinking about modal scales, it would be simplistic to compare every instance of modal organisation against the diatonic major scale. This is one reason for proposing a category called 'modalised tonality'. In music where, for example, the flattened seventh is consistently employed, this practice becomes a norm in itself. Calling that note a modal 'alteration' becomes redundant. It is modal, but nothing is being 'altered'. For this reason I will now refer to modal scale degrees rather than modally altered scale degrees. Where part of a piece is diatonic, it may be useful to distinguish the modal version of a scale degree from the diatonic version. In this situation there is movement between the background historical context of tonality, and the locally established norm of modalised tonality. In some cases it will be appropriate to describe the two potential versions of a scale degree as 'alternatives' rather than distinguish one as normative and the other as altered. But where one version is used rather than the other, whether it is modal or diatonic, it will be called

the main version, and the other will be its alteration. Neither ‘modal’ nor ‘alteration’ is being abandoned. Rather, the two terms, so commonly combined, and sometimes with justification, are being separated.

Given these points, and the full range of modal scales in Ex. 2.3, aspects of modalised tonality are now explored through some short musical examples. It will be seen that modal scale degrees can have a significant impact on tonal stability.

Five Variants on ‘Dives and Lazarus’ employs modal scales throughout. The passage given in Ex 2.4 uses the B Aeolian scale. It comes after the main theme, which ends with three and a half bars of tonic pedal. B is well established at the start of the extract, and it continues to be the tonal centre for the duration of the passage quoted, although D major is briefly suggested in bars C.17³-19. Given the presence of a tonal centre, and the consonant, triadic harmony, could a Schenkerian graph provide an analysis of this passage?

The first problem is establishing the hierarchical relationship of the chords used, especially identifying a functional dominant. The first cadential motion is plagal (bars C.16³-17¹), providing tonal motion but not the opposition of dominant and tonic found in a perfect cadence. A triad on the fifth degree in the Aeolian mode will be minor of course, reducing its sense of functionality. This is illustrated by a motion from v to i in bars C.19³-D.1. The next motion towards the tonic, ivb-VII⁹-i (bars D.3-4) might be considered similar to the plagal cadence as the chord on the lowered leading note contains all three pitches of a triad on IV. In these examples, the plagal cadence creates motion towards the tonic successfully, perhaps more so than the altered perfect cadence. Voice leading is still important, but the $\hat{3}\text{-}\hat{2}\text{-}\hat{1}$ descent less so. For example, a descending third progression (B-A-G) is a feature of this bass line. The first time it is followed by a leap of a third back to B, the second time it continues

to form a fourth progression, and finally it is reversed (bars C.16-17, D.1-2, D.3-4). This shared feature links the cadential progressions just discussed. It participates in foreground harmonic motion towards tonic chords, but the range of approaches is wide, and the dominant does not provide opposition to the tonic, about which all other harmonic relations are hierarchically organised. For example, the cadence at the end of the example contains a bass motion from $\hat{5}$ to $\hat{1}$ (cf. bars C.19-D.1). While this is felt as voice leading motion towards the tonic, it is not a perfect cadence. The $A\sharp$ will prevent this, and in this example, D is held so the harmonic motion is IIIb-i. Like the previous progressions, these chords do create some sense of motion towards the tonic triad that can be described in terms of foreground voice leading. But the basis upon which the attribution of consistent, hierarchical functions could be made is unclear. Instead the tonic is stable because it is frequently present, and because there is motion towards it.

A total of seven pitch classes are used in 'The Blessed Son of God' from *Hodie* (1953-4), given in Ex. 2.5. These form an F major or G Dorian scale. In contrast to the previous example, this extract does not start with a clear tonal centre. The opening two bars comprise I-V in F major followed by v-i in G minor and the rest of the opening phrase (bars 1-7) does little to clarify whether F or G is the tonal centre. Melodically the pitch resource is a pentatonic scale (F-G-A-C-D) which can be understood in both F major and G Dorian. The melodic shape of the first two bars is repeated immediately with the addition of one note. While F major and G Dorian were juxtaposed in bars 1-2, F is briefly more prominent than G during bars 3-4. However, the D minor chord in bar 4 could be v in G Dorian or vi in F major. Parallel part movement is abruptly introduced in bar 5, contrasting with the preceding contrapuntal part-writing. This does not constitute good counterpoint from a Schenkerian

perspective, although more weight is given to F as the potential tonic. This possibility is contradicted in the following bar, as viic in F leads to iib, which is ib in G. The phrase ends with v-I in G Dorian.

Two tonal centres are suggested but not established. Only the seven pitches of a diatonic scale are used, but tonal ambiguity results. The possibility of modal organisation opens a new perspective on a conventional pitch resource. As a general rule the dominant minor is less functional than an unaltered dominant. Where two tonal centres are suggested this chord is even less structural, illustrated here by D minor chords that are either vi in F major or v in G Dorian. For these reasons the D minor chord in bar 4 is not prolongational.

In the second phrase (bars 7-15) the parallel part-writing from bar 5 is revealed to be unexceptional. Parallel and 'contrapuntal' progressions are juxtaposed during this phrase. The parallel writing emphasises the fact that the chords are not functioning according to the principles of common-practice tonality. At the same time the melody's pitch resource expands to include all seven notes of the scale (B \flat in bar 10, E in bar 12). If the melody is considered in isolation, bars 8-11 emphasise F while bars 12-15 suggest a move to G. F major chords are frequently present (bars 8³, 9³, 11³, 14³) so that the possibility of F as tonic remains. A minor chords are quite prominent in the phrase as well (bars 9¹, 11¹, 13¹) although this frequent presence of a particular chord does nothing to clarify whether its function is iii of F major or ii of G Dorian. The last F major chord gives way to G momentarily, functioning in a VII⁷-i cadence (bars 14³-15). Looking back across the opening 15 bars, G Dorian now seems more prominent as both phrases have ended with a cadence onto this tonal centre. However the third phrase concludes the verse with a cadence in F major. If the elements of harmony and counterpoint that Schenkerian analysis usually reveals are

frustrated or not present in the main part of this example, can the final cadence be analysed from this perspective?

It is true that chord V is at bar 17², and this could be shown as leading to the final tonic (bar 19). The final three notes of the melody could complete a descending *Umlinie*. However the final three bars are approached by a bar of parallel part-writing (bar 16) which links a chord of Dmin⁷ (v of G) to Fmaj⁷, as if to represent the two tonal centres that have been suggested in the piece. Chord V, starting at bar 17², would have to be prolonged through chord IV in the next bar. This plagal cadence might be considered just as effective at closing the phrase, while the chord V is not structural, passing instead between II^{7b} and II^{7c}.

While analysis of a passage from *Five Variants on 'Dives and Lazarus'* showed that a tonic remained referential (but was not prolonged) by its frequent presence and a variety of cadential motions towards it, comparison with events in 'The Blessed Son of God' reveals that frequent presence alone is not always enough to establish a tonic. Cadential motions to two tonal centres at times establish local tonics, but neither is prolonged. The two cadences in G Dorian are not prolonged through the following material at a middleground level. In addition parallel part-writing disrupted the principle of good voice leading which characterises Schenkerian middlegrounds and the subdominant provided a stronger cadential motion than the nearby fleeting appearance of the dominant. In a search for sources of stability and continuity in this piece, it is clear that the pitch collection is more consistent (i.e. unchanging) than the tonal centres.

'The Blessed Son of God' is one of two movements for unaccompanied choir in *Hodie*. The other, 'No sad thought his soul affright' is given in its entirety as Ex. 2.6. The piece contains no modulations, yet all twelve pitch-classes are heard during

the movement. This is because all possible modal alterations in Ex 2.5 are included, from the 'Lydian' fourth (bar 10⁴) to the 'Locrian' fifth (bar 3³ although it is notated by Vaughan Williams as a G \sharp rather than A \flat). The third degree is frequently altered, and prominence is given to this scale degree by the shape of the melody. Throughout all these modal alterations the tonal centre remains stable. The stability of the tonic is articulated by the frequent repetition of harmonic patterns, including ii-I cadences. It is the frequent presence of the tonic in combination with this repetition that ensures the stability of the tonic while all other scale degrees fluctuate, rather than any opposition between tonic and dominant functions or prolongations.

In some works the dominant is largely absent. The harmonisation of the main theme in *Fantasia on a Theme by Thomas Tallis* contains many tonic chords (major and minor) but few dominants. There are many cadential motions from chords iv and vii to the tonic (Ex 2.7). An unaltered dominant in bar 6 of the example does not play a structural role while the subdominant closes the phrase. This phrase is developed during the Fantasia and is featured shortly before the end of the piece. The dominant is frequently present but it does not take on a structural function. Instead the piece is closed by a vii-iv-I progression. The root movement by fourths could be thought of as an alternative movement by fifths (F-C-G instead of A-D-G).

The examples discussed so far illustrate a range of modalised tonal strategies. At times the tonic is uncertain, and when it is established, a great variety of cadential harmonic progressions is used. The frequent presence of the tonic is necessary to sustain it, and the proposition that the tonic is prolonged has been problematised by modal alteration to the dominant, and other scale degrees. From the discussion above modalised tonality has been identified as a broad category that is often distinct from the procedures and structures of common-practice tonality. Four questions provide a

focus for further investigation of modalised tonality: Can there be more than one tonal centre at the same time? Could the subdominant replace the Schenkerian function of the dominant? What is the role of frequently present chords? What is the impact of flexible scale degrees on the stability of the tonal centre? These questions are now explored at greater length in an analysis of *The Lark Ascending*.

The Lark Ascending

A formal plan is given in Table 2.1 showing a ternary design framed by violin cadenzas. The themes are given in Ex. 2.8. Each of the three sections can be internally divided into ABA' patterns, according to the arrangement of the themes. The cadenzas share similar melodic figurations (which represent the lark) and are each prefaced by an orchestral introduction ending on a chord sustained during the first part of the solo section. As these sections occur at the beginning and end of the piece they are likely to be significant for the proposal of any referential material. The orchestral introduction to the first cadenza contains all the pitches of a D major or E Dorian scale (Ex. 2.9). These two pitches are simultaneously featured: E by a pedal note, D by the melodic pattern D-E-F#. Parallel movement below this rising third progression does not particularly suggest D major, however the salience of the higher notes and the repetition of this motion lend it some weight. The pedal bass note (E) is easily identified as 1, yet the upper voice (D-E-F#) can be understood as $\hat{1}-\hat{2}-\hat{3}$ at the same time. Heard in E Dorian the upper voice would be $\hat{7}-\hat{8}-\hat{9}$, but the rising third seems independent of E, cutting across this pitch centre. This does not create tension but there do seem to be two co-existing pitch centres during these opening bars. Some further evidence of E Dorian is revealed by a harmonic analysis. The phrase could be labelled as i^7 , IV, i^9 (no 3) (repeated), but the last chord is better described as v over a tonic pedal. This can be described as a motion from tonic (i^7) to dominant (v over 1)

in E. The addition of a minor seventh to the tonic triad, and the presence of a tonic pedal during the phrase, mean that the two chords share $\hat{1}$ and $\hat{7}$ as well as $\hat{5}$. In other words, the chords share three notes while G is replaced by F \sharp so that the sense of stasis is stronger than the motion from tonic to dominant. At the same time the D major linear element is present. Yet another way of analysing the last chord is as a combination of E and D elements: [E, B] and [D, F \sharp]. Through these few chords, the phrase establishes a collection of relationships to be explored during the piece.

The last chord is held during the solo until the violin completes its registral ascent to D $_7$, which I will refer to as the first half of the cadenza. The violin solo uses the notes of a pentatonic scale on D (D, E, F \sharp , A, B). This pentatonic comprises all the notes of the orchestral held chord plus A. These pitches do not form a ‘functional’ chord in the Schenkerian sense, but the pentatonic does contain the pitches of two triads (D major and B minor) which have already been alluded to in the orchestral introduction. The previous paragraph described co-existing pitch centres in the opening chords, both suggested in the held chord. The addition of A creates a pentatonic sonority which further blurs the relation of E and D, and stresses the similarity between $v(^7)$ of E and $I(^6)$ of D. In this cadenza, the pentatonic scale is heard in the context of a modalised tonality where tonal centricity is at issue. The five-note scale creates a sense of equality between the pitches and although two triads can be formed from the notes, neither subordinates to the other, and the sonority of the complete scale (implied by the violin figuration) is stable rather than forming a dissonance which demands resolution.

The melody which commences the second half of the cadenza uses the notes D, B, A and G before returning quickly to the pentatonic scale described above (these pitch resources are summarised in Ex. 2.10). The first and third chords of the

orchestral introduction were compared to show three shared notes with G being replaced by F#. The second half of the cadenza starts with a pitch resource sharing three notes from the surrounding pentatonic scale, with E and F# being replaced by G. There is a pattern of shared pitches being kept while G and F# alternate. This substitution of neighbouring pitches creates a relationship between pitch materials independent of harmonic functionality, and will return as a feature later in the analysis.

The second cadenza is approached by the same harmonic progression (with some rhythmic alterations). It uses the same type of figuration and ends with the D-B falling minor third motif that is prominent during these cadenzas and *The Lark* as a whole.

The third and final cadenza concludes the piece with the D-B motif. The orchestral approach is different, and the pitch resource of the cadenza shifts between two pentatonic resources as shown in Ex 2.10. Like the first cadenza, and the first and third chords of the orchestral introduction, a change of just one note creates the shift in pitch resource, and, as in these previous examples, it is a shift from G to F# that occurs. The pattern from the first cadenza (F#-G-F#) is inverted (G-F#-G). The orchestral chords approaching this final cadenza contrast with the previous introductions (Ex. 2.9). Now the pitch resource is E Aeolian, so C# has been replaced by C. There is no suggestion of D major as a tonal centre in these chords. The harmony supports this closing motion with parallel chords in the lower parts from VI⁷ through a passing D major triad (actually forming a pentatonic because B and E are held in the upper voices) to i⁷ in E Aeolian. This harmonic motion is repeated twice and the final chord is held for the first part of the cadenza. A change of only one pitch distinguishes the first and third chords again. This time C is replaced by B. While a

concealed tonic-dominant motion was uncovered in the opening chords, this progression features a third shift from C to E. There is a hidden tonic-dominant relationship in the cadenza, however. If the pentatonic from the first cadenza (B, D, E, F#, A) is associated with the dominant of E, then the scale used at the beginning and end of the final cadenza can be associated with the tonic (E, G, A, B, D). The held chords illustrate these associations more clearly: E, B, D, F# from the first and second cadenzas being a dominant plus pedal compared with E, G, B, D in the last cadenza being the tonic triad plus minor seventh.

The flattened seventh reduces functionality. But it can also be added to the tonic, creating a much more stable sonority than the major seventh of a diatonic scale. I would propose that the tonic with a minor seventh forms a stable chord in this piece. The leading note, with a vital role to play in functional closures, is reclaimed by the tonic. Furthermore this is the first and last chord played by the orchestra, and the pentatonic resource for the final notes of the piece is one associated with E, contrasting with the previous cadenzas. The i^7 is referential, but in the final cadenza it is simply held by the strings. Referentiality is clearly an issue in the introductions and cadenzas, as well as overlapping pitch resources, and the change of one note by a semitone to affect such a shift. Common-practice tonality plays an important role in interpreting the tonality of these three passages. The pitch materials can be understood against the conventions of this earlier tonal practice, reworking them to achieve a less polarised effect. Adapting the opposition of tonic and dominant to a relationship where one note changing by a semitone can at first suggest one chord and then the other is some distance from these earlier procedures where tonal centres are clearly established and prolonged. The establishment of, and relationship between, tonal centres remains a concern of this analysis as I turn to the rest of the piece.

The beginning of the A section takes up the harmonic and melodic materials of the preceding introduction and cadenza. The orchestral introduction becomes a repeating accompaniment, above which the solo violin plays the melody that started the second half of the cadenza. During bars 5-A.7, E Dorian, D major and the pentatonic on D all have some influence on the pitch organisation. The bass seems to articulate a very simple chord progression of root position chords on the first, fourth and fifth degrees of the scale. The sense of progression is reduced by the part-writing, creating parallel fifths. At the same time, the first violins suggest D major through repeated motions up and down a major third, and then an octave ascent during bars 9-A.1. The solo violin starts by using the notes D, B, A and G, before returning to the D pentatonic at bar 7. Like the orchestral introduction, these different kinds of pitch organisation do not clash, there is not really any sense of opposition between them. This is largely because they all draw from the seven-note pitch resource (with the exception of a C \sharp in the second violin in bar A.6). The rising octave from D₄-D₅ during bars 9-A.1 in the first violins can be heard in D major, while being consonant with chords of i, IV and v in E Dorian. The parallel part-writing, and the leading note of D major rising to its tonic contribute to a passage where there is no convincing closure in E minor. E Dorian, then, is a less closed, less unitary tonal organisation than E minor, able to co-exist with other forms of pitch organisation. A Schenkerian analysis of this passage is not possible as there are two co-existing tonal centres. One approach could be to regard the D major elements within a governing tonal centre of E. But there is no sense of tension between the rising and falling third progressions on D and E, and there is no resolution of the D material in E. The prevention of closure produces a greater harmonic constancy which rests upon the idea of coexistence during bars 5-A.7.

A compromise between the two tonal centres is reached at bar A.8. The first phrase ends in bars A.5-7 with the solo violin playing the D-B motif over an E pedal and an accompanying texture developed from the orchestral introduction. In common with the preceding bars, the phrase ends with elements of E in the bass, D in the first violins and the D pentatonic scale in the solo violin. In bar A.8 there is a rhythmic arrival on a chord of A major. This can be understood as IV in E Dorian, and V in D major. The melodic motion approaching this chord suggests I-V in D (see Ex. 2.11). The violin figuration uses just four pitches (A, B, E, F \sharp) and so remains within the pentatonic on D. However it also colours the underlying A major triad with two extra pitches that form a pentatonic on A (A, B, C \sharp , E, F \sharp). This ‘compromise’ chord contains elements of pentatonic, E Dorian and D major organisation. It comes at the end of the E pedal and in the following bars, the bass moves once or twice a bar. This increased harmonic motion enables a clearer articulation of E Dorian.

Bar A.10 contains a plagal cadence in E Dorian. These two chords are the reverse of the harmonic motion in bars A.7-8, and mark the start of harmonic movement between chords of E minor, B minor, D major and D pentatonic which continues until bar C.2. The alternation between E and the D materials is a linear working-out of the harmonies simultaneously suggested in the opening bars of the A section. Whereas the previous bars suggested E and D as tonal centres simultaneously, the cadential plagal cadence at bar A.10 helps establish E as ‘the’ rather than ‘a’ tonal centre, and the D pentatonic material now sits more comfortably within E rather than sounding independent of it. The repeated $\hat{1}$ - $\hat{5}$ bass motions in bars B.7-C.1 and C.4-7 emphasise an interpretation of the D pentatonic as a pentatonic on $\hat{5}$ in E (B, D, E, F \sharp , A). This repeated chord progression does not affirm the tonic in the way an unaltered

dominant would do. The contrast with the more conclusive plagal progression is clear at bars C.2-3.

A brief modulatory passage follows before E is re-established at bar D.10. Bars D.8-9 establish a pitch collection (the notes of an E Aeolian scale) more clearly than any pitch centre. Bar D.8 also features the D-B motif in the melody. The piece will end with this motif and it connects many moments in *The Lark*. At bar D.10 the scale on E is now Aeolian rather than Dorian. This lasts until bar F.4 where E Dorian returns. The pentatonic is heard for more bars than chords of E, but prominent melodic Es, and the return of material from earlier in the piece in bars E.9-F.7 ensure its stability during the latter part of the A section.

Within the A section, E is main the tonal centre, yet its stability changes during this music. At the start of the A section it coexists with D, as described above. Later, the D-based material sits within E, which ‘functions’ as *the* tonal centre. Plagal cadences affirm E at bars A.10 and C.2-3 more strongly than the intervening repeated movement between E minor and the pentatonic on B. A case could be made for prolongation of E starting around bar A.10, with a modulation away and then a return to this tonic at bar D.10 (now E Aeolian rather than E Dorian). But this prolongation is weaker than one using unaltered dominant chords, and assertive perfect cadences. So any graph would need to represent this as different from, not equivalent to, diatonic prolongation. A change in tonal strategy occurs at bar A.10, but not a substantial or sudden shift of musical language. The coexisting pentatonic, D major and E Dorian elements of the preceding bars are accommodated about E as the tonal centre. This subtle shift in tonal strategy is typical of Vaughan Williams’s modalised tonality, and illustrates the expanded range of possibilities modal pitch resources

enable. Further analysis will enable consideration of both the stability and the relation of tonal centres during *The Lark* as a whole.

After the E Dorian, D major and pentatonic pitch organisations of the orchestral introduction and cadenza during bars F.4-8, E Aeolian returns at the start of the B section (until J.5). C major and E minor chords are juxtaposed frequently and this element will return in the A' section. As the section continues the second and sixth degrees are sometimes altered, and A minor chords are often prominent. An A minor chord (bars G.9-H.2) follows the end of the first phrase at bar G.8. The following bars confirm that this is a temporary emphasis on chord iv in E Aeolian rather than the establishment of a new tonal centre. F major chords at bars J.4 and J.6 are part of a tonal ambiguity that is typical of modalised tonality. Here the melody from the opening of the B section is played by the orchestral violins at the same pitch but with different underlying chords. From bar J.4-6 the tonal centre could be F. The continuation reveals E Aeolian is re-established. Bars J.4-6 could either be heard in E Phrygian or as a temporary tonicization of F.

The middle part of the B section starts at bar L.6 and is in D Dorian. The harmonic rhythm is slower while the soloist is more prominent than in the first part of the B section. The key signature for this passage is one flat, but there are many more B naturals than B flats in these bars. This is an example of Vaughan Williams using the key signature to signal a tonal centre (D) rather than simply selecting the one which most closely matches the notes used. Chords of A minor and then E minor occur in the opening bars of this section. There is some melodic emphasis on D at bars M.8-N.2 and finally chords of D minor from bar N.3. Both forms of the third and sixth degrees of D Dorian occur during this section, but this has no bearing on the

stability of the tonic. In these bars, virtuosic display is more prominent than tonal or harmonic argument.

Bar R.1 marks a return to the tonality and melodic material from the start of the B section, including repeated harmonic progressions from C major to E minor. This section is shorter than the first part of the B section, and the latter stages build a sense of expectation through sustained chords and a repeated melodically rising figure.

The start of the A' section, a point of recapitulation (bar T.10), is a reworking of the main theme from bar 5. The home key cannot be re-established because it was used extensively in the B section. At first the main theme is re-harmonised in B Dorian, but as G[#] is replaced with G[♮], B Aeolian is suggested. Bars U.3-6 can be heard as a temporary tonicization of A followed by a return to B Aeolian (A major, E minor, A major, B minor, E minor(1st inv), F[#] minor(no 5th), B minor). This also does not last for long, as C[#] is replaced by C[♮] at bar U.8 and the E Aeolian scale returns. This was previously used during the latter part of the A section. The A' section starts with a return to the tempo and melodic material of the opening, but the tonality is far from settled. As it continues, E is more firmly established. E Aeolian is coloured by a Dorian C[#] at bars V.2 and V.8. A short modulatory passage follows – this is similar to the one in the A section, although there is more emphasis on C major this time with an unaltered perfect cadence at bars V.11-12. E Aeolian returns at bar W.4 with C major chords playing a prominent role. This chord is sustained from bar X.3-Y.1, before featuring in the progression approaching the final cadenza. There is no suggestion of D major in these bars. D-E-F[#], a melodic feature of the orchestral introduction at the opening of this piece, is replaced by E-F[#]-G in the violas (Y.1-6). E Aeolian is a stable pitch centre and pitch resource at the end of the A' section, contrasting with earlier

sections where E has co-existed with other pitch centres, and other pitch resources. This prepares for the cadenza where the pentatonic on E will be predominant, in contrast to previous cadenzas where the pentatonic on B was mainly used, as described above.

Considering *The Lark* as a whole, E clearly functions as the home tonal centre. Pentatonic pitch resources on the tonic and dominant scale degrees feature in the cadenzas which frame the piece. There is a contradiction between the hierarchical relation of the dominant and tonic scale degrees (present to some extent even in the absence of an unaltered dominant) and the more equal weighting given to the constituents of a pentatonic chord. There is still some motion from dominant to tonic, but it is less forceful than a conventional V-I cadence. The emphasis on D major at the same time as E Dorian at the start of the A section shows the capacity for modalised tonality to accommodate more than one tonal centre simultaneously. The continuation, where D major and pentatonic chords alternate with E minor chords, and plagal cadential progressions are introduced so that there is one tonal centre, E, shows how the music can shift from one tonal strategy to another with only a small amount of change to the surface of the music. The B section, framing a D Dorian passage with music in E Aeolian, shows a concern for working-out tonal relationships during a piece: D, co-existing with E at the opening, eventually functions as *the* tonal centre for a time. The chord progressions from C major to E minor in the outer parts of the B section prepare in turn for the approach to the final cadenza. The greater prominence of E Aeolian in the A' section, compared to the prominence of E Dorian in the A section reveals another gradual shift in tonal resources. This clarifies E as the tonal centre, by flattening the C \sharp to C \natural the suggestion of D major is removed. While the

pitch materials at times seem decentred, long-range tonal processes are also enacted which provide elements of overall coherence.

Conclusions

Modal scales frequently occur in Vaughan Williams's music. They open a wider range of potential tonal strategies compared with the relative certainties of common-practice tonality. Most modal scales have a flattened seventh degree, and the second subject from the first movement of the Fifth Symphony illustrates the difference this makes to harmonic relations, both for the dominant triad and melodic shapes using the 'leading note'. By comparison the subdominant offers a stronger cadential motion. All of the examples discussed in this chapter contain plagal cadences. Given the frequent occurrence of this harmonic progression the question could be posed as to whether the subdominant functions in an equivalent way to the dominant in common practice tonality. However, there is not the same strength of polarity between IV and I as there is between V and I.

The flexibility of scale degrees is another feature of modalised tonality that distinguishes it from common practice tonality. Whereas notes outside the diatonic scale are either accounted for as chromatic or are part of a modulation in tonality, modalised tonality breaks these associations. A scale degree can be altered, and still understood as that scale degree; alternatively the modification of scale degrees may create uncertainty as to the tonal centre. In 'No Sad Thought', the tonal centre was stable while every scale degree except the tonic fluctuated. By contrast 'The Blessed Son' featured a stable seven-note pitch collection while the tonal centre fluctuated. At the beginning of the A section in *The Lark*, there was a stable seven-note pitch collection while two tonal centres were suggested simultaneously. Comparison of these examples reveals that modalised tonality features an expanded range of potential

tonal strategies compared with common practice tonality. In this context, the frequent presence of the tonic is usually vital to sustaining a particular tonal centre. At the same time, the presence of a particular pitch or chord does not guarantee consistency in its function, especially where there is uncertainty as to what the tonal centre is, as in the second phrase of 'The Blessed Son'.

It has become apparent that modal scales act not only 'alterations' but consistently employed 'alternatives' in a number of pieces. A scale degree can be fixed or flexible, in its modal or diatonic version. On this basis it is easy to distinguish diatonic from modal scale degrees. The modal scales in Ex. 2.3 were considered in comparison with the diatonic major scale. Where the diatonic major scale degrees all exist in one version, the modal scales contain alternatives for each scale degree except the tonic. Where the modal scales are used in combination, any scale degree has two versions. A clear distinction can be made between diatonic and chromatic notes in relation to the major scale. Any note other than the seven diatonic notes is either chromatic, demanding resolution, or signals a modulation to another key. Tonality is characterised by fixed scale degree identity; modal scales feature flexible scale degrees.

One factor emerging from the analysis is that much of the music discussed is closer to minor, rather than major, keys. So how do the modes compare with a diatonic minor scale? Some modal alternatives are still clearly distinct from tonal procedures in a major or minor context: $\sharp\hat{4}$ and $\flat\hat{5}$ are the most distant as the tritone interval, $\flat\hat{2}$ also has the distinctive 'Phrygian' sound. The most commonly fluctuating scale degrees in Vaughan Williams's modalised tonality are $\hat{3}$, $\hat{6}$ and $\hat{7}$. All three of these can fluctuate in a diatonic minor key as well. Obviously $\hat{6}$ and $\hat{7}$ are most frequently heard in both versions, but $\hat{3}$ also is open to the tierce de picardie. There is

some degree of overlap between tonal and modal procedures then because in a diatonic minor key, two versions of the same scale degree can appear consecutively in a tonal context without these either being chromatic notes demanding resolution or signalling a modulation. But clear differences remain and *The Lark Ascending* illustrates them well. In a common-practice context, the flexible sixth and seventh degrees accommodate functional harmony, so that the dominant major is employed at cadences. In many passages during *The Lark Ascending* either the Dorian or Aeolian scale is employed. Here the seventh is consistently flattened, and the sixth is either always major or minor, depending on which modal scale is being employed. The flexible scale degrees of the minor key and the equivalent scale degrees in modalised tonality are clearly distinguished by their harmonic role. In a minor key the flexibility serves to produce functional harmonic progressions, whereas in modalised tonality, this is not expected.

The ‘true, unitary nature’ of tonality is clearly violated by modalised tonality. The idea of pitch centricity is no less important in this music, however, even when there is less opposition of pitch materials compared with common practice tonality. The graphical representation of tonal processes in this music is problematised by all the factors summarised above. Tonal centres are often sustained rather than prolonged. While prolongation is a well-defined concept depending upon the clear hierarchical arrangement of pitches in relation to a governing tonic, the sustaining of a tonic is clearly a more flexible concept. In order to position it more clearly, and given the proximity of modalised tonality to common practice tonality, explaining exactly why a prolongation does not work can be a revealing analytical strategy. Attempting to represent graphically a modalised tonal progression can indicate how chords are (or are not) related, especially in conjunction with a written commentary.

Given that the pitch materials in this music are not tonally unified, then, following Maus's approach, this might prompt the suggestion that they are tonally disunified. However, I prefer to describe processes of tonal resistance being enacted through this music. Arnold Whittall identifies tonal resistance of a different kind in Tippett's *The Mask of Time*:

The D-tonality is undermined by the sheer weight of dissonances superimposed on the diatonic elements – a polyphony whose tendency towards total chromaticism resists the singularity of tonality.²³

The modalised tonal strategies identified in Vaughan Williams's music feature the reduction of tension within the scale, and the unclear articulation of tonal centres which resist the singularity, or unity, of tonality. More than one pitch centre can coexist, or there can be ambiguity as to what the tonal centre is, in modalised tonality. However, in the examples discussed during this chapter such ambiguities are eventually settled in favour of one pitch centre or another. F and G both played a role in 'The Blessed Son of God' but eventually the piece ended in F, having accommodated the G-based material. D and E coexist at the start of *The Lark*. But after reaching a compromise chord, E becomes established, and D is integrated into the overall tonal design. Modal scales create the opportunity for such ambiguities and coexistences to emerge, and can be contrasted with diatonic resources, as in sections of the Fifth Symphony. In the music discussed in this chapter, it appears that one tonal centre or another will be the most prominent. Comparison can be made with the Schenkerian model at times. Some of the 'reversals' and 'obstacles' of motion towards the goal are similar to those identified by Schenkerian analysis. At other times, motion towards 'the', or even 'a' goal is less obvious or absent, and quite different tonal strategies are employed. If anything, this expanded range of potential courses of action makes tonal centrality a more, not less crucial issue for analysis to

explore. Diatonicism also remains available as a compositional strategy. It is available as a ‘background’, or distant norm against which modes can be interpreted. There is always the possibility of reading a flattened seventh as a ‘modal alteration’. But a more fruitful dialogue with this music is sensitive to the localised norms that emerge through close analysis. For Vaughan Williams’s music, modalised tonality has so far appeared to provide a suitable localised norm. Here there are both modes and scale degree alterations, which may or may not be the same thing depending on the musical context.

ENDNOTES

¹ Heinrich Schenker, *Free Composition*, trans. Ernst Oster (New York: Longman, 1979), p. 71.

² *Ibid.*, p. xxi.

³ *Ibid.*, pp. 4-5.

⁴ All musical examples, figures and tables can be found in volume two of this study.

⁵ Felix Salzer, *Structural Hearing: Tonal Coherence in Music* (New York: Dover, 1982 [1952]), p. 165.

⁶ This alternative is identified in Jonathan Dunsby and Arnold Whittall, *Music Analysis in Theory and Practice* (London: Faber, 1988), p. 58.

⁷ Whittall, “‘Symphony in D Major’ Models and Mutations”, in Alain Frogley, ed., *Vaughan Williams Studies* (Cambridge: Cambridge University Press, 1996), pp. 194-5.

⁸ *Ibid.*, p. 193.

⁹ Robert P. Morgan, ‘Dissonant Prolongation: Theoretical and Compositional Precedents’, *Journal of Music Theory* 20/1 (1976), p. 73.

¹⁰ James Baker, ‘Schenkerian Analysis and Post-Tonal Music’ in David Beach, ed., *Aspects of Schenkerian Theory* (New Haven: Yale University Press, 1983), p. 179.

¹¹ Baker, ‘Voice Leading in Post-Tonal Music: Suggestions for Extending Schenker’s Theory’, *Music Analysis* 9/2 (1990), pp. 196-7.

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- ¹² Morgan, 'Chasing the Scent: The Tonality of Liszt's *Blume und Duft*', in James Baker, David Beach, and Jonathan Bernard, eds, *Music Theory in Concept and Practice* (Rochester: University of Rochester Press, 1997), p. 372-3.
- ¹³ Richard Parks, *The Music of Claude Debussy* (New Haven: Yale University Press, 1989).
- ¹⁴ Joseph N. Straus, 'The Problem of Prolongation in Post-Tonal Music', *Journal of Music Theory* 31/1 (1987), pp. 1-22; Straus, 'Voice Leading in Atonal Music', in Baker, Beach, and Bernard, *Music Theory*, pp. 237-74.
- ¹⁵ William E. Benjamin, 'Tonal Dualism in Bruckner's Eighth Symphony', in William Kinderman, ed., *The Second Practice of Nineteenth-Century Tonality* (Lincoln: University of Nebraska Press, 1996), p. 237-8.
- ¹⁶ Daniel Harrison, 'Bitonality, Pentatonicism, and Diatonicism in a Work by Milhaud', in Baker, Beach, and Bernard, eds, *Music Theory*, p. 401.
- ¹⁷ Dunsby and Whittall, *Music Analysis*, p. 112.
- ¹⁸ Baker, 'Schenkerian Analysis', p. 186.
- ¹⁹ Dunsby & Whittall, *Music Analysis*, p. 110.
- ²⁰ Alain Frogley, *Vaughan Williams's Ninth Symphony* (Oxford: OUP, 2001) p. 11.
- ²¹ Fred Everett Maus, 'Concepts of Musical Unity', in Nicholas Cook and Mark Everist, eds, *Rethinking Music* (Oxford: Oxford University Press, 1999), p. 171.
- ²² Whittall, 'Resisting Tonality: Tippett, Beethoven and the Sarabande', *Music Analysis* 9/3 (1990), pp. 267-86.
- ²³ Whittall, 'Resisting Tonality', p. 272.

Chapter 3

Characteristic Harmonic Progressions: Adhering to ‘An Alternative Mode of Determination’?¹

The music discussed in the last chapter remained within the limits of modalised tonality. Many of these works, especially *The Lark Ascending*, are typical of Vaughan Williams’s pastoral style. Such music is characterised by a gently undulating texture, but it is not undramatic. Instead, when the music builds to a climax, the subsequent period of decay is often as smooth as the preceding period of dramatic growth. The overall effect is one of continuity. However, many other compositions feature striking harmonic progressions that focus attention on ‘the moment’. An example of this is given in Ex. 3.1, from the song cycle *On Wenlock Edge* (1909). (This example also includes a harmonic reduction that will be discussed later in the chapter.) Anthony Pople describes this as ‘an emblematic passage in early Vaughan Williams’, the first two chords of which are equivalent to ‘a characteristic harmonic progression’ repeated a number of times in the *Tallis Fantasia*.² There are many progressions in Vaughan Williams’s music where the roots of consonant triads are a third apart.³ Another distinctive element of the composer’s harmonic language is parallel stepwise motion between triads. An example of this is given in Ex. 3.2 from the motet *O Vos Omnes* (1922). Chord progressions containing third relations and parallel stepwise motion are the subject of this chapter. The progressions will be explored from contrasting theoretical perspectives, including modalised tonality, common-practice tonality, and Neo-Riemannian theory. Most of the

analysis will be of short progressions. The two examples introduced in this paragraph will be analysed, and compared with a number of other characteristic progressions. Having established a range of theoretical perspectives, 'From far, from eve and morning' and *O Vos Omnes* will be analysed in depth, in order to set Vaughan Williams's characteristic progressions in their various musical contexts.

Modalised Tonality

Pople's example from *On Wenlock Edge* has a particularly distinctive sound because it contains what might be termed a 'false relation', between G \sharp in the E major triad and G \flat in the following G major triad. From the perspective of modalised tonality, the two notes forming this 'false relation' can be reconsidered as scale degree alternatives. Hearing the two versions of the scale degree alongside one another contributes significantly to the impression that there is something distinctive or characteristic about such a progression. The five-chord progression in this example can be understood on an E tonic. The first and last chords are the tonic major, while the G major and F major chords draw upon the notes of the Phrygian scale on E. This short phrase does not modulate, and the fixed departure and return point helps mark E as the tonal centre. This progression can be easily understood in terms of the modalised tonality proposed in the previous chapter. In common-practice tonality, the listener expects an opening phrase to establish a key centre, and the 'modality', that is whether the piece is in a major or minor key. At the end of the opening phrase of this song, E is clearly established, but the 'modality' is unclear. In modalised tonality, G \sharp and G \flat can simply be regarded as alternative versions of a

flexible third degree, rather than one being a chromatic note that must be resolved in favour of the other.

Compare this with a passage from the Sixth Symphony given as Ex. 3.3. It illustrates a slightly wider range of scale degree alternatives, but a similarly stable tonic. The second and fifth (and obviously the first) degrees of the scale are stable, while both versions of each of the other scale degrees occur. The opening bars draw only upon the pentatonic scale and E is quite clearly established as the tonic note by its frequent presence and the melodic shape. The Lydian A \sharp at bar 15.5³ contrasts with the Phrygian F \flat in the approach to this phrase. G \flat occurs at bar 15.5⁴ after G \sharp is present in the preceding bars. During the short example from *On Wenlock Edge*, the major third degree was not established before its minor alternative occurred. In this phrase from the sixth symphony however, the major scale degree is continuously present until its alternative occurs, and so the G \flat at bar 15.5⁴ can be considered an ‘alteration’. Definitive rules have not been proposed to distinguish scale degree ‘alternatives’ from ‘alterations’. This question should be settled through the analysis of individual examples. The phrase quoted in this example contains many third relations, and might be considered, like the passage in Ex. 3.1, to be emblematic of Vaughan Williams’s music. Sometimes two versions of a scale degree are juxtaposed in these progressions: B major – G major contains D \sharp -D \flat , $\sharp 7$ - $\flat 7$, bar 15.11; C major – E major contains G \flat -G \sharp , $\flat 3$ - $\sharp 3$, bar 15.12⁴-13¹. The use of fluctuating scale degrees means that this phrase cannot be understood in relation to any one modal scale. Rather, the modal scales combine to provide a range of options, which are juxtaposed. In this example, the flattest modal alternative, $\flat 5$, is not included. The

Phrygian second is kept at the margins, only appearing in the introduction to the phrase at bar 14.5.

There are also examples of parallel stepwise progressions in this phrase (bars 15.6¹⁻⁶, 15.9⁴-10⁴). The examples from what is commonly described as the sixth symphony 'E major theme' can all be understood against the tonic. There are a mixture of major and minor chords which are within and beyond the diatonic E major scale, but can all be understood within the resources of modalised tonality on E. In general terms the chords comprising such progressions may be all major and all minor, they may fluctuate in order to remain within the limits of a particular scale, or they may seem to juxtapose major and minor chords with no apparent logic or order. Parallel part-writing generates a range of harmonic effects, which may or may not lie within the resources of modalised tonality.

Third progressions can also go beyond modal writing. One has only to reverse the two-chord 'characteristic' progression from *On Wenlock Edge* to illustrate this possibility. Ex. 3.4 is from the *Mass in G Minor* (1920-1). The opening intonation is on G, and so the G major chord in bar one sounds like the tonic. However, the rest of the phrase is in E. G major is immediately challenged by the E major triad, and in the following bars the relationship between the two is clarified. One note in the E major chord plays a crucial role: the G#. Clearly G# cannot be understood as a modal alteration in G, as it does not disrupt the stability of the tonic. If this were a chromatic note, then its resolution would be in favour of G. As this does not happen, the only alternative is that it signals a modulation. Some 'characteristic' progressions can be understood within the resources of modal scales, while others effect modulations.

The opening two chords of *A Sea Symphony* are given in Ex. 3.5. Heard about the pitch centre D, this chord progression also reaches outside any modal scale with the note D \flat . In this progression, D \flat is a chromatic note, resolved in the following D major chord. It is consistent therefore to treat B \flat and F \sharp as chromatic on this occasion.

The Combined Modal Scale and Chromaticism

The various modal scale degree possibilities were all given in Ex. 2.3. In that example, reading down the page each modal scale appears to contribute its own alteration on the preceding scale. For convenience, these are combined in Ex. 3.6 as the ‘combined modal scale’ or CMS, which shows every possible scale degree that can be included in modalised tonal music on C. ‘No sad thought your soul affright’ from *Hodie* features this complete range of modal possibilities in one movement (Ex. 2.6). In the last chapter modalised tonality was compared with common-practice tonality. In Ex. 3.6 the CMS invites comparison with a twelve-tone scale, Ex. 3.7(a). The same pitches are included in both, so what is the difference between them? At first the only distinguishing feature appears to be that F \sharp and G \flat are included in the CMS, while the chromatic scale contains each pitch only once. However, this is indicative of more significant differences. The twelve-tone scale can be just as easily represented by pitch-class numbers. But the CMS is sensitive to scale degree identities. The twelve-tone scale starting on C can also be written as shown in Ex. 3.7(b). The CMS on C can only be written as it appears in Ex. 3.6. Therefore C \sharp ($\hat{1}$) is not a modal possibility on C, while D \flat ($\flat\hat{2}$) is, where these two notes are identical in the chromatic scale. Other notes not included within the CMS on C are D \sharp , E \sharp , G \sharp , A \sharp , all double-flats and all double-sharps. Every note in the CMS *can*

occur without the need for it to be resolved. On C, D \flat can be a stable ‘Phrygian’ note, rather than chromatic, for example. This means that any of the twelve-tones is available to be used without requiring resolution. The contrast between two versions of the same scale degree might be emphasised, or one might appear more frequently so that the other appears as its ‘alteration’, but there is no rule as to which way round this relationship occurs. Patterns of resolution occur in modalised tonality on this basis, but it is equally the case that each of the twelve-tones is also available to be used in a way that does not demand resolution. Modalised tonality occupies a space between diatonicism and atonality. On the one hand, there is a strict hierarchy of relationships in diatonic tonality. On the other hand, the twelve tones are treated equally in atonality. Scale degree identity is retained in modalised tonality, but the identity of scale degrees is flexible. By retaining tonal centricity and scale degree identity, whilst allowing, but not assuming, all twelve tones to be potentially stable, a wide range of possibilities is available in modalised tonality.

The remaining question is how to describe those notes which are outside the CMS. I propose that chromaticism does not disappear in modalised tonality, but it describes a smaller number of notes. Notes outside the CMS should be regarded as chromatic. For example, in C, notes such as C \sharp or D \sharp should be treated as chromatic, while their enharmonic equivalents remain understandable as modal scale degrees. Where notes within the CMS are functioning chromatically, then the passage in question can be interpreted in terms of common practice tonality. The implications of this are now considered through analysis of the examples already introduced.

B \flat minor to D major (in D) contained one note that could only be considered chromatic according to the proposed concept of modalised tonality. But why is the D \flat not interpretable as a C \sharp ? Ex. 3.8 shows this enharmonic equivalent which would be within the CMS. But it does not represent how the chords sound. Both harmonies sound as consonant triads – the distance between B \flat and D \flat is a third, from D \flat to F is a third, and from F to B \flat is a fourth. The distance between the roots of the two chords is also heard as a major third. And so, about a tonic of D, where B \flat is a flattened sixth, F is a flattened third, what is D \flat must be a ‘flattened tonic’ which demands resolution if (and only if) the progression is to be heard in tonal terms. Even if the progression is not tonal, the consonant interval content remains a defining feature of the way we hear this sonority in context. Clearly the interval from the B \flat to the next note up in the triad sounds as a minor third and not an augmented second. Again the interval from the second note to F \sharp sounds as a major third and not a diminished fourth. If D \flat is chromatic in this context, the whole triad must surely be chromatic: it is hard to see how supposedly stable modal scale degrees and one chromatic note might form part of the same chord. When this happens, modalised tonality is suspended, and the progression is better understood in terms of conventional harmony. In this particular example, the progression comes at the beginning of the work, and so this opening is not modal. That might be considered unsurprising in a relatively early work by the composer. However, elements of modalised tonality are introduced during bars 6³-8², which can be understood in terms of D major or B Aeolian.

This distinction between modalised tonality and chromatic tensions is frequently explored in Vaughan Williams’s music. At the opening of the Sixth Symphony, a melodic minor third, F-G-A \flat , is juxtaposed with a tonic chord of E minor (Ex. 3.9). The semitone

dissonance is heavily and dramatically emphasised. As the first subject section unfolds, F minor seems to have won the opening E/F conflict at bar 6, but despite further significant instabilities E minor is eventually established. The A \flat is a flattened fourth in relation to E, and a source of tension which is exploited in this movement. It is a chromatic note in need of resolution if the challenge to the tonic is to be resolved. Like many of the third progressions highlighted elsewhere, the chords share a common tone. The move from F minor (represented by a rising major third rather than the full triad) to E major/minor could be cited as a particularly striking parallel stepwise progression. While the CMS can accommodate a wide range of Vaughan Williams's characteristic harmonic progressions, at other times the limits of this principle of organisation are exceeded.

The modalised tonality of the so-called 'E major theme' where a number of scale degrees, including the third, are heard in both versions, is confronted by a return of the opening theme (Ex. 3.10). The A \flat is now written as G \sharp and collapses into a massive tonic minor chord. In the preceding bars, both G \sharp and G \flat could occur. One was more frequent than the other, but there was no great sense of tension between them. Considering G \flat as the 'alteration' of G \sharp is a very different relationship from that at the end of the movement between 'G \sharp ' (which still sounds like A \flat) and the G \flat of a tonic minor chord. At bars 18.3-4 the two pitches sound together, the semitone crunch emphasising their chromatic relationship and the requirement of resolution. Despite the 'E major' theme, the movement ends with a clear reminder that this is a 'Symphony in E Minor'.

Triadic Juxtapositions

It has already been proposed that juxtaposition of triads a third apart is a frequent occurrence in Vaughan Williams's music, and that such progressions can be heard as modal or chromatic, depending upon how the third progression is employed. Both approaches understand the progression with reference to a tonal centre, for in the previous examples tonal centricity was either firmly established or a modulation was effected. In an example from *A Vision of Aeroplanes* (1956) consonant triads do not reside within a CMS (Ex. 3.11). Major chords a major third apart are juxtaposed. D major is the most prominent of the three triads, but it is emphasised by its positioning at the beginnings and ends of phrases, and the presence of a tonic pedal in bars 11.7³-11.8⁴, rather than through affirmative harmonic progressions. Chords of E major and F major are used toward the end of this passage at bars 12.4⁴-5⁴. Other than this the only three triads employed are D major, F# major and Bb major. The roots of these triads equally divide the octave, so that while D is emphasised, F# and Bb are equivocal in their relationship to D, rather than effecting motion towards it. This passage features the third relationships common to Vaughan Williams's music, but stands outside the modalised tonality that accommodated many previous examples.

Triads a major third apart are also juxtaposed in a passage from *Job* (Ex. 3.12). There is much less of a sense that the quoted passage is in one key, compared with the previous example. The chords are held for longer so that the triads in the strings provide a texturally constant but harmonically shifting support to the soloist's melodic material. The equal distance of the roots provides an element of consistency in these chord changes, until this is broken off at bar Rr.18³.

Juxtaposition can be employed about a single reference point. This is illustrated in Ex. 3.13, which is taken from the motet *The Souls of the Righteous* (1947). A major occurs more than any other chord (at bars 16-18², 18⁴, 22⁶, 23² and 28), without in any sense containing or controlling the harmonic motion within. The roots of most chords in this passage are derived from division of an octave on A into minor thirds. F# occurs only briefly at bar 19, but triads on C (at bars 15³, 20-21 and 27), and D# (at bars 23³-26³) play a larger role.

The modal elements in the phrase from *On Wenlock Edge* characterise many harmonic progressions in Vaughan Williams's music. At other times the triadic progression may release chromatic tension. Another alternative is for triads to be juxtaposed, exploring the effect of equally dividing the octave. This may confront or limit any proposition of tonal centricity. Discussing the previous three examples, I have highlighted a variety of juxtapositions. But this does not really explain how these chords are related, mainly offering the negative proposition that they do not illustrate modal, tonal or chromatic relationships. Could there be some other principle of organisation at work in these passages? Triads whose roots are a third apart have been extensively investigated by Neo-Riemannian theorists, although such an approach problematises the term 'third relations'. I will now turn to Neo-Riemannian theory, in search of a new perspective on these examples of juxtaposition.

Neo-Riemannian Theory

This section summarises the most analytically applicable developments in this area, but it should be recognised that the triadic models sit in a context of broader theoretical work.

As well as the writings of Riemann and other nineteenth century theorists, David Lewin's Transformational Theory is a significant influence on Neo-Riemannian theory.⁴ In general terms, Lewin identified musical objects, whether they be chords, rhythmic units or timbral elements, and related them in a mathematically defined space. Musical constructs, such as the division of the octave into twelve semitones can be modelled mathematically, and so, mathematically, abstract musical spaces can be constructed and explored. Richard Cohn has taken this approach in order to compare a consonant triad in the tonal system with trichords in other organisations of acoustic space, proposing reasons for parsimonious voice leading within the twelve-tone system.⁵ Neo-Riemannian theory does often focus on triadic harmony in tonal space, however, and in particular chords linked by semitonal voice leading. Neo-Riemannian theory draws terminology and ideas from pc set theory, including the assumption of enharmonic equivalence. Furthermore, the notes of a chord are generally regarded as being of equal importance, which contrasts with the greater importance awarded to the root in conventional harmonic theory. This distinction will be explored later in more detail.

Neo-Riemannians often relate triads by their voice leading efficiency score. Calculating this score is a two-stage process. Firstly, the triads are written out in three voices, each pitch in one voice, and the triad in closed position. The two triads are positioned as close together as possible. Secondly, the minimum distance that each of the three voices needs to traverse to complete the motion from the first triad to the second triad is counted in semitone steps. So to calculate the voice leading score of the first chord progression in Ex. 3.1, the chords are written out with the minimum voice leading distance between the two triads. This appears in the harmonic summary in the top stave

of the example. Then the minimum voice leading distance traversed to reach G major from E major is calculated. E falls two semitones to D, scoring two, B is held, scoring zero, and G \sharp falls to G natural, scoring one, giving a VLE score of three. This is a relatively efficient voice leading score.

Neo-Riemannian theorists have focused on those progressions which produce low VLE scores. Chords with low scores are referred to as having smooth, efficient or parsimonious voice leading. In general terms, Neo-Riemannians have focused their attention on ‘chromatic music that is triadic but not altogether tonally unified.’⁶ Cohn also gives a more specific formulation:

Neo-Riemannian Theory maps the group structure of triadic transformations in an equal-tempered (12 pc) environment, with special attention to those transformations that optimize pitch-class intersection, and, more generally, voice leading parsimony.⁷

Cohn provides a paradigmatic expression of these stated aims in his hyper-hexatonic system, reproduced as Fig. 3.1. It shows the twenty-four major and minor triads arranged into four cycles, each containing six chords. The transpositionally equivalent cycles are internally constructed according to the principle of maximally smooth voice leading. To move between any two adjacent triads requires the movement of one voice by one semitonal step. For example, to get from C major to C minor, E is lowered to E \flat ; to reach B \flat minor from F \sharp major simply requires F \sharp to be lowered to F. Enharmonic and octave equivalence is assumed, as well as ‘the law of the shortest way’, that is each voice moves by the smallest possible interval in each progression, as occurs in the procedure for calculating voice leading efficiency scores.

The hyper-hexatonic system possesses a number of parsimonious properties. To move directly between any two triads within a cycle requires no voice to move by more

than a semitone. This leads to perhaps the most striking feature of this model; the hexatonic cycles are *maximally* smooth. Obviously it is not possible to effect a more parsimonious relation than the shifting of one voice by one semitone. To move between triads which are two steps away on a cycle requires the movement of two voices by one semitone; these voices will move in contrary motion (C major to A \flat major, for example). The least parsimonious transformation within a cycle is that between opposite triads, such as C major and A \flat minor. These pairs of triads are known as hexatonic poles; they necessitate the movement of each voice by one semitone. The pitch class content of each cycle is drawn from a transposition of pc set 6-20, prime form [0,1,4,5,8,9]. There are only four distinct versions of this set, each one providing the pitch resources for one of the four hexatonic cycles in Fig 3.1.⁸ The pitch resource of each cycle can be divided into two halves; each half is used in the pitch resources of that cycle and the neighbouring cycle. Opposite cycles have distinct pitch resources, and together they use all twelve pitch classes. This sharing of pitch class resources is illustrated by the overlapping ovals at the centre of Fig. 3.1.

A comparable model of triadic relations can easily be constructed from Douthett and Steinbach's 'Octacycles' diagram (Fig 3.2). The authors (a music theorist and a mathematician) take the two-dimensional *Tonnetz* as their starting point, and consider the question of what happens to the relationships in this model when enharmonic equivalence is assumed. They trace Cohn's hexatonic cycles back to their acknowledged source in the *Tonnetz*. Octacycles are then proposed by following a similar process. The authors use these two types of cycles in combination to produce a two-dimensional 'chicken-wire torus', before finally reshaping this as a three-dimensional 'donut' structure. Douthett and

Steinbach do not consider whether the cycles have any analytical applicability, as their primary concern is the theoretical modelling of triads in modulo-12 pitch-class space. In Fig 3.3 I have rearranged Douthett & Steinbach's octacycles as the hyper-octatonic system, to facilitate comparison with Cohn's hyper-hexatonic system. It shows the twenty-four major and minor triads arranged into three cycles, each containing eight chords. The transpositionally equivalent cycles feature smooth voice leading, to move between adjacent triads on the cycle requires the movement of one voice by either a semitone or a tone. The pitch class content of each cycle is drawn from a transposition of pc set 8-28, prime form [0,1,3,4,6,7,9,10]. There are only three distinct versions of this set, each one providing the pitch resources for one of the three octatonic cycles in Fig 3.3. The pitch resource of each cycle can be divided into two halves; each half is used in the pitch resources of that cycle and the neighbouring cycle.

The hyper-hexatonic and hyper-octatonic systems appear as two possible organisations of triads which exemplify smooth voice leading. But there is an important difference between the two. Leaps across a hexatonic cycle preserve smooth voice leading, each voice moving by no more than one semitone in any leap across a cycle. So the maximum VLE score for a progression between any two chords within a hexatonic cycle is three. Given that such leaps might produce direct relationships, a hexatonic cycle is graphically reconfigured as a network, shown in Fig 3.4. But the parsimony of a hexatonic network is not preserved in the octatonic equivalent. This is shown in Fig 3.5. For sake of clarity those progressions with a VLE score of one to four are shown on Fig. 3.5(a); those with VLE score of five or six on Fig. 3.5(b).

Table 3.1 contextualises the VLE scores shown on the hexatonic and octatonic networks within the full range of possible relationships between consonant triads. The VLE scores of each major and minor triad from the same starting chord of C major are given.⁹ Had C minor been used as the first chord in that table, the frequency of VLE scores would be the same. Pairs of destination chords would effectively swap VLE scores. For example C major to E minor (VLE score 1) and C major to A \flat major (VLE score 2) would swap with C minor to E minor (VLE score 2) and C minor to A \flat major (VLE score 1). These pairs can be produced by inverting the root of the second chord about C and switching the mode of the second chord. Given this point, and through simple transposition, all possible progressions between consonant triads can be derived from Table 3.1. The table shows, by implication, that the largest VLE score between any two consonant triads is six (the lowest is obviously one). So an octatonic network (but not an octatonic cycle) contains every possible VLE score between two consonant triads, compared with the hexatonic network where the largest VLE score is still relatively efficient.

VLE scores provides a fascinating context to receive another triadic model, the Weitzmann cycles. C. F. Weitzmann was particularly interested in the voice leading properties of the augmented triad. He found that by moving one voice by one semitone, six different triads can be related to any one augmented triad. For example an augmented triad on C can lead to any of these triads by moving one voice by a semitone: E major, A minor, C major, F minor, A \flat major or D \flat minor (represented in Fig 3.6). These Weitzmann regions are described by Cohn thus:

The relationship between the six triadic members of a Weitzmann region is paradigmatic: their status in the group depends not on their direct relationship to each other, but rather on their mutual relationship to an object outside of the group.¹⁰

Consider another approach to organising triads: placing them in a cycle, where the paradigmatic relationship is a similar VLE score. The hexatonic cycle springs to mind, with each adjacent chord a VLE score of one away from its neighbour. What happens if triads with a VLE score of two are placed in a cycle? This is what happens in an unpublished sketch by Charles Wilson, titled ‘nonatonic networks’.¹¹ C major, D \flat minor, E major, F minor, A \flat major and A minor form a cycle where each is two voice leading steps from its neighbour. The cycle is reworked as a network, showing that the VLE score of every triad to every other triad is two. So not only are all the triads in this group a semitone step away from the augmented triad on C, but each one is two semitone steps away from every other member. In the light of Wilson’s nonatonic networks we can reconsider Cohn’s statement about the Weitzmann region – there is not only a mutual relationship to an object outside of the group, but a relational principle that joins every triad to every other triad within the group.

Table 3.2 again shows the VLE score of each triad from the common reference point of C major. Triads with the same VLE distance from C major are arranged in order by root, ascending from C. The VLE score of the neighbouring triads is shown, and the distance of the roots of the triads with the same VLE score from C major. This reveals that triads with a VLE score of two form a special group. No other VLE score can form a network where every triad is the same VLE score away from every other triad. By combining Weitzmann’s original regions, Cohn’s concept of VLE scores, and Wilson’s nonatonic networks, the properties of this particular group of triads are more fully revealed.

Another triadic model from nineteenth-century theory illuminates the interaction of all the models discussed so far, and offers an alternative graphical representation of certain chord progressions with low VLE scores. This is the *Tonnetz*, or table of tonal relations, given here as Fig. 3.7.¹² Each triangle represents a major or minor triad, with the letter names at each corner of the triangle representing the three pitches of the triad. In theory, the diagram can extend infinitely in all directions, through single, double and triple sharps or flats and beyond. The *Tonnetz* illustrates fifth and third based relations interacting – each pitch is a perfect fifth apart from its neighbours on the horizontal axis, a major third apart from its neighbours on one diagonal axis, and a minor third apart from its neighbours on the other diagonal axis. Riemann plotted triadic transformations on the *Tonnetz*; his three main types of triadic transformation are shown on Fig. 3.7: P (Parallel) relates triads sharing a common fifth, L (Leading-note exchange) relates triads sharing a common minor third, and R (relative) relates a common major third.¹³ The *Tonnetz* illustrates two relational principles - voice leading parsimony, and common tones. The P, L and R transformations reflect this, as in each case two common tones are preserved, with each transformation having a VLE score of one or two.

The cyclical systems presented earlier may appear to be some distance away from Riemann's infinitely extending *Tonnetz*. But if the principle of enharmonic equivalence is applied to the *Tonnetz* then the gap starts to close. Movement along the diagonal axes reveals the hexatonic and octatonic cycles discussed above. Moving from top-left to bottom-right produces hexatonic cycles, while movement from bottom-left to top-right produces octatonic cycles, as shown in Fig. 3.8. These movements can be described more formally as the repeated application of pairs of transformations, or 'binary generators' to

use Cohn's description: <PR> cycles will produce octatonic cycles, whereas <LP> cycles will produce hexatonic cycles.¹⁴ Additionally, Weitzmann regions (or cycles) can be plotted on the *Tonnetz* as represented by Fig. 3.9. The *Tonnetz* also influences Douthett & Steinbach's construction of the octacycles - they present this diagram as a stage on the way towards drawing a three-dimensional re-presentation of the *Tonnetz* which assumes enharmonic equivalence, called the 'Chicken-Wire Torus'.¹⁵

One element of Neo-Riemannian theory not discussed so far is the role of root relations. I have referred to 'third progressions' to describe chords whose roots are a third apart in my analyses. Cohn avoids this language:

The adoption of a group-theoretic approach to relations between triads suggests that the internal structure of the individual triads might also be viewed group-theoretically, as a complex of equally weighted pitch-classes and intervals. ... triads will be named by their traditional (not Riemannian!) roots Use of these labels should not be interpreted as implying generative status on the part of the named pitch-class. On the contrary, the component pcs should in all cases be considered as equally weighted.¹⁶

However, I will not take this approach in my analyses. Neo-Riemannian theory offers a perspective on relations which seem distant from those of diatonic tonality. The voice leading smoothness, often found in every voice except the bass, provides a basis for interpreting such relationships. But are these relations so far away from tonality, that the root of the chord ceases to be any more harmonically significant than the third and the fifth? I would disagree. The interval of a third is emphasised in the sonority of a triad. A pitch class approach finds all consonant triads belong to pc set 3-11 [0, 3, 7], interval vector 001110. The sonority contains three intervals and they are all different. But a tonal listener hears two types of third, and a perfect fifth. This greater prominence of thirds within the sound is a distinctive feature, and the root of the chord is the base upon which two thirds are stacked. Where the triad is a very common sonority within a piece, this

tonal perception of the internal properties does not collapse, even when functional relationships between the chords are absent. While the relationships revealed by a hexatonic cycle are distant from diatonic tonality they are not so far removed that the root ceases to be comprehensible as any different from the other notes, especially when the chords are realised in ‘root position’.

Establishing the role of roots has implications for the idea of VLE scores. If roots are eliminated then the VLE score is the sole indicator of relatedness between triads. If roots are retained, the VLE score represents part of the relationship, with the root relationship being significant also. Cohn quotes from Schoenberg’s definition of voice leading efficiency:

Each voice will move only when it must; each voice will take the smallest possible step or leap, and then, moreover, just that smallest step which will allow the other voices also to take small steps.¹⁷

While this definition is shared by Cohn and Schoenberg, their treatment of the bass differs. Cohn’s triads do not have roots, but Schoenberg’s musical examples illustrating ‘the law of the shortest way’ show each chord in root position. The bass supplies the roots, while smooth voice leading is illustrated by the top three voices. In theoretical terms triads can be understood from a group-theoretic perspective as collections of three equally important pitches. Alternatively, a hierarchical tonal perspective is possible. Cohn emphasises a separation between Neo-Riemannian theory and tonality when presenting his theoretical models. But in analytical practice, Neo-Riemannian relationships are found in tonal, chromatic and modal contexts. If the triad’s constituents are equally weighted, this theoretical construct is compromised in analytical examples, where it is situated amongst conventional tonal, chromatic or modal relationships.

The juxtaposition of triads a major third apart in nineteenth-century music has been explored in recent theoretical writing outside Neo-Riemannian writing. The contrasts between these approaches are illuminating. David Kopp, argues that chromatic mediant relations, like a perfect cadence or a modulation between relative major and minor keys, ‘are functional’.¹⁸ He proposes that a wide range of nineteenth-century music is understandable in terms of ‘common-tone tonality’.¹⁹ Third progressions are grouped depending on the number of common tones they share as shown in Ex. 3.14. The ‘chromatic mediants, as elements of an expanded system of common-tone tonality, convey clarity and impart stability.’²⁰ While common tones are frequently found in third relations, as the example shows, basing an entire system upon them is problematic. Kopp reaches ‘the unavoidable conclusion that step progressions are not unary and direct.’²¹ Such progressions must be understood via an intermediary chord. Kopp’s grouping of mediants in terms of common tones draws attention to another property of these progressions besides voice leading efficiency. It also focuses on parsimonious progressions, while retaining the roots of triads, and casting these as functionally related.

In another recent study of nineteenth-century harmonic relationships, Daniel Harrison seeks to recover a space between the pitch-class nomenclature used in Cohn’s hyper-hexatonic system and the idea of ‘tonal-meaning recovery’.²² Harrison argues that a complete circling of a hexatonic cycle can be understood with reference to tonal centricity and so offers a number of different readings of the progression. According to one of these, there is an overlapping shift from the perspective of one tonal centre to another, rather than the eschewal of tonal centricity proposed by the hexatonic cycle. In each of the alternative readings, Harrison attributes the difficulty in interpreting this

progression to an overabundance of tonal meaning. Clearly the roots of chords are significant in this analysis.

Anthony Pople also considers the importance of distinctive root progressions in a harmonic analysis of a passage from the *Tallis Fantasia*. Two factors are highlighted in his analysis: the interval class between roots, and whether common tones are shared between consecutive modal pitch resources.²³ Here the root often moves up or down by ic3, and this provides a source of continuity through moments of potential harmonic disruption. Further examples of root progressions by ic4 confirm that third relations have an important role to play in this piece.

In summarising these different approaches to triadic harmony which is tonally problematic, I have highlighted both voice leading and harmonic relationships. Kopp, Harrison and Pople all consider harmonic root relationships as well as linear elements, whether the focus is on common tones between triads, the enharmonic reinterpretation of a pitch, or common tones between modal pitch resources. Such perspectives contrast with a Neo-Riemannian approach. While keeping a tonally based conception of harmony and Neo-Riemannian principles apart in theory, Cohn brings them together in analytical practice. In an analysis of the first movement of Schubert's B \flat major piano sonata, D.960 he concludes that:

It is typical of much of Schubert's music that diatonically indeterminate progressions governed by efficient voice leading at the middleground are structurally 'sandwiched' in between monotonal prolongations at the background and diatonically based prolongations, cadentially articulated, at the foreground.

Diatonic and Neo-Riemannian relationships are found simultaneously, on different structural levels. Cohn's analysis allows him to propose 'that Schubert's chromatic

idiosyncracies are not arbitrary, aimless, or indeterminate by mere virtue of their irreconcilability to diatonic tonality’:

Some of them simply adhere to an alternative mode of determination, or, in Kramer’s terms, a ‘counter-coherence.’ The methodological point is that, before plunging down the path toward indeterminacy, it is prudent to consider such alternative paths.²⁴

In this chapter, I will continue by pursuing a similar approach to Vaughan Williams’s music. But while Neo-Riemannian theory offers an approach to chromatic music that is triadic but not obviously tonal, Vaughan Williams’s harmonic language includes elements of modalised tonality and juxtaposition as well as chromaticism. Neo-Riemannian theory may pose ‘an alternative mode of determination’ to all three. The relationship will not necessarily be the same as that between Neo-Riemannian models and diatonic tonality, and will be explored through a return to the harmonic progressions first discussed earlier in this chapter.

Neo-Riemannian Analysis

Many of the music examples, such as Ex. 3.1, include a harmonic summary, and the markings on this stave can now be fully explained. The numbers above the stave indicate the VLE score between triads. Where a chord progression can be found on a hexatonic or octatonic cycle, including pairs of chords which are from the same cycle but are non-adjacent, this is indicated below the stave with the name of the relevant cycle (refer to Figs 1 and 3 for the cycles themselves). No special marking is made for chord progressions that can be found on a Weitzmann region – a VLE score of two indicates when this is the case. Open note-heads signify a shared pitch with the previous triad,

filled note-heads indicate that pitch is not shared with any in the previous triad. Filled note-heads are also used for all the pitches of the first triad in an example. Triads are given in their maximally efficient voice leading realisation. Accidentals in reductions refer only to the note to which they are attached.

Earlier in the chapter, I argued that triads a third apart were juxtaposed, and that these phrases were distant from being tonally organised. The passage from *Job* (Ex. 3.12) illustrated this. Now it can be seen that B minor, G major and E \flat minor all belong to the same hexatonic cycle. The semitonal voice leading of the analytical reduction contrasts with the voicing of the sustained string chords where each voice moves in major third steps, except at Rr.15-16, where each voice rises by an augmented fifth (this could also be heard as a leap of a minor sixth). The slow harmonic rhythm makes it quite possible to hear lines of continuity between instrumental parts. The progression from B minor to G major, with a VLE score of one, sounds smooth, with F \sharp rising to G, and D and B both sustained. Additionally the root moves by a third, but smooth voice leading patterns can also be traced. The progression with the largest root motion (E \flat minor to B minor) has a VLE score of two. Parsimonious voice leading can be traced through the string parts again: G \flat becomes F \sharp , and there are two semitonal steps, from B \flat to B \natural and E \flat to D \natural . In this example, the harmonic reduction reveals voice leading relationships that are masked by the parallel part-writing. From a tonal or modal perspective the chords in this passage are juxtaposed. But there are voice leading continuities that a Neo-Riemannian perspective uncovers.

Juxtaposition is much more obvious in *A Vision of Aeroplanes* (Ex. 3.11). The leaps happen more frequently, so that there is a much greater contrast between the

smoothness suggested by the hexatonic cycle and the musical surface.²⁵ Melodic alternation between F \sharp and F \flat is a recurring feature, but there are many more leaps than movements by step in this texture, thus disguising the smoothness offered from a Neo-Riemannian perspective. It is true that the three triads comprising the majority of the harmony in this passage all belong to the same hexatonic cycle, and that each of the progressions between them has a VLE score of two. But in this case, Neo-Riemannian analysis reveals a potential continuity that is not realised in practice.

A single octatonic cycle can be understood to play an important role in the harmonic organisation of *The Souls of the Righteous*, Ex. 3.13. The triads of octatonic cycle O1 form a harmonic source for much of bars 14-28. Octatonic cycles do not bind together as tightly as hexatonic cycles, although they feature parsimonious voice leading around their edges, cross-cycle relationships include the full range of VLE scores. In a progression from A major to D \sharp major (bar 23) only the movement of A to A \sharp is obviously smooth; the overall effect is the juxtaposition of two unrelated chords. By contrast A major to C minor is smoothly voiced at bars 19-20. In these progressions the role of voice leading varies, and tonal relationships are present. Although the flattened mediant minor is a distant tonal relationship, smooth voice leading emphasises the motion from one to the other. C minor is framed by tonic chords, as A major returns in bar 22. But disjunct voice leading emphasises the tonal distance of D \sharp major from A major. The tonic does not immediately return. Instead the path back is via C major, the flattened mediant major, and the chord which equally divides the problematic tritone. In this example, voice leading efficiency plays a role within tonal relations. The chords of the octatonic cycle, rather than being equally weighted, are once again hierarchically

arranged in terms of a tonic. This piece has a progressive tonal design, starting in F# Aeolian (bars 1-9) and ending in A major. Between these two scales, which draw on the same pitch collection, A major emerges as a tonic about which octatonically-related triads are positioned.

All three of the examples featuring juxtaposition draw upon equal division of the octave. This is a familiar analytical ‘problem’ for Schenkerians. In a phrase quoted by Cohn, Salzer and Schachter have to make special allowances from a Schenkerian perspective:

We register the equal intervallic progressions without referring them to a supposed diatonic original. This temporary lack of a diatonic frame of reference creates, as it were, a suspension of tonal gravity.²⁶

In *A Vision of Aeroplanes*, the equal division is not so much a suspension of tonal gravity, as a temporary organisational principle. Although the chords are juxtaposed, a pattern is followed. *The Souls of the Righteous* example offers a mixture of progressions where smoothness and juxtaposition is emphasised, but tonal hierarchy is retained. In *Job*, voice leading smoothness is more evident, and tonal centricity less apparent. Low VLE scores are theoretically available whether they are actually realised in a parsimonious texture or not. If these relationships are disguised by parallel chord movement, their relevance should be questioned, but they may still have some role to play.

Semitonal voice leading is something shared between chromatic resolution and the Neo-Riemannian models, however. The opening chord progression of *A Sea Symphony* illustrates a voice leading property of special importance to the hyper-hexatonic system. B \flat minor to D major is an example of a hexatonic polar relationship. In the harmonic reduction, each voice moves by one semitone. Each pair of hexatonic poles

is distinct, so there are twelve possible hexatonic poles altogether, three in each hexatonic cycle. Cohn observes that these pairs of triads occur frequently in nineteenth century Austro-German repertoire, and can be found in a number of his examples:

The hexatonic poles featured locally in most of the examples stubbornly resist interpretation in terms of standard diatonically based models. Perhaps more than any other type of triadic pairing, the juxtaposition of hexatonic poles liberates listeners from the cognitive noise of their over-learned habits.²⁷

The additional interpretation offered by the hexatonic cycles invites the analyst to consider the progression in contrapuntal rather than harmonic terms, and in a local context the two chords could be regarded as of equal importance. This contrasts with the $\flat vi$ -I description which grants hierarchical importance to the second chord. However, Cohn also points to a ‘paradoxical quality from the viewpoint of diatonic tonality’:

Each triad contains the other’s two most piquant tendency tones, the raised seventh and the flattened sixth degree (or some enharmonic version(s) thereof).²⁸

Given that the *Sea Symphony* progression is from B \flat minor to D major, it can be considered unproblematic from a tonal perspective, according to the analysis from earlier in the chapter. This example does not resist a tonal interpretation. The hyper-hexatonic system is a compelling account of semitonal relationships, but these can still be charged with tonal meaning where pairs of chords are in question, rather than a complete cycling motion (which disrupts tonal organisation with equal division and unresolved chromaticism).

Given that distinction between analysing pairs of chords on particular cycles and cycling motions, it seems unlikely that the Neo-Riemannian approach will fundamentally challenge the analysis of those progressions which were understood within the CMS. However, additional properties are revealed, especially as the smooth voice leading of the

harmonic summary is shared in the voicing of the passage. Neo-Riemannian analysis of the ‘emblematic progression’ in Ex. 3.1 illustrates the symmetrical arrangement of the triads. The relatively smooth VLE score shows the strong sense of relation between E major and G major. The role of the common tone is significant, binding E major and G major, but absent from the middle G major to F major to G major which is not a strong relationship in Neo-Riemannian terms.

The E major theme from the first movement of the sixth symphony (Ex. 3.3) starts by repeating a parsimonious progression from E major to C \sharp minor. This third progression has a VLE score of two, and is strongly connected by smooth voice leading. The same is true for a number of other third progressions in this passage, such as G major to B minor (bars 15.5⁴-15.6¹, VLE 1) or C major to E major (bar 15.7, VLE 2). Between these two examples there is an unparsimonious step-wise progression of B minor to A major to G major (bar 15.6, VLE, 5, 6).

The example of a characteristic progression effecting a modulation (Ex. 3.4) contains strong semitonal voice leading from G \flat to G \sharp . The voice leading line passes between the two choirs, as G⁴, sung by the first choir altos, rises to G \sharp ⁴ in the second choir soprano part. This efficient voice leading binds the two chords together, and creates a strong sense of progression from one to the other. A Neo-Riemannian perspective provides a way of describing this voice leading connection between the two chords. But tonal concerns remain in this example. The connection of G major to E major by semitonal voice leading is clearly heard at the beginning of the E major chord. At this point, from a tonal perspective, the function of that E major chord is unclear. It is only clarified retrospectively as E becomes established during bars 2 to 5. This is a common

feature of many moments of tonal uncertainty. There is a contrast between the Neo-Riemannian relationship, which is immediate and local, and the (tonal) modulation, where the triadic relationships are established over a number of bars.

The total number of possible third relations between triads is fairly small. From any one triad, there are eight other triads which are a major or minor third away. As third relationships feature prominently in Vaughan Williams's style it could be deduced that a relatively small number of effects are created by such progressions. However, the same chord progression can function differently depending on context. The relational principles of modalised tonality, chromaticism and juxtaposition, can interact with Neo-Riemannian perspectives in analytical practice. These relationships will be further explored in the two case studies which end this chapter. Before this, stepwise parallel progressions, identified in the opening paragraph as a distinctive element of the composer's harmonic language, will be considered in the light of Neo-Riemannian theory.

High VLE scores

The concept of voice leading efficiency has been employed by Cohn to illustrate the parsimony of progressions. Although the VLE scores of all triadic progressions are noted (Table 3.1), the focus of Cohn's investigations is on parsimonious relationships. But the principle by which triads are related, voice leading efficiency, can be applied to any triadic progression, parsimonious, or not. This is explored in Table 3.1, where it is shown that triadic progressions have VLE scores ranging from one to six. Stepwise progressions often appear to be unparsimonious, such as B minor to A major (VLE score 6).

A short passage from *O Vos Omnes*, Ex. 3.2, reveals neighbouring parsimonious third progressions and unparsimonious stepwise progressions. This is illustrated most clearly at the beginning of the example, where there are three stepwise progressions with a VLE score of five or six, and three third progressions with a VLE score of one or two. This polarity is not sustained, as G \flat major to F major has a VLE of three (bars C.3-4), which is the same score as the progression from C minor to E \flat minor (bars C.1-2). A general point is that most third progressions are parsimonious, while most stepwise progressions are less parsimonious.

As Neo-Riemannian models attend to progressions with low VLE scores, little attention has been paid to progressions with high VLE scores. I will now focus on high VLE scores with reference to two more musical examples, before returning to the example from *O Vos Omnes*. High VLE scores are the focus of this discussion, with the aim of exploring whether a score of five or six necessarily indicates an unparsimonious progression.

For parsimonious progressions, finding the smoothest arrangement of the voices is straightforward. In a chord progression such as E major to G major (Ex. 3.1) B is held as a common tone. The remaining notes are easily arranged in their maximally smooth configuration: G rises a semitone to G \sharp , D rises a whole tone to E, and so the chord progression has a VLE score of three, a relatively smooth progression. Despite the arpeggiation of the chords, these three lines of continuity can be clearly heard between the highest pitches.

Even in some slightly less parsimonious progressions, the maximally smooth voicing can be easily determined. C minor to A major has a VLE score of four, and the

smoothest path is followed when C rises to C \sharp , E \flat rises to E, and G rises to A. Each of these reductions to the maximally efficient voicing is following Schoenberg's definition of 'the law of the shortest way':

Each voice will move only when it must; each voice will take the smallest possible step or leap, and then, moreover, just that smallest step which will allow the other voices also to take small steps.²⁹

In the progressions with high VLE scores, the last clause of the quoted sentence becomes particularly significant. Consider the progression C major to D major (Ex. 3.15(a)). Each voice must rise by a tone, in order to allow each of the other voices to take the smallest possible step. This means that G must rise one tone to A; it does not fall a semitone to F \sharp , shown on the second line of the example as a 'hidden' semitone. The smoother path of an individual voice is not considered, so that the aggregate VLE score of the whole progression can be determined. In a harmonic progression, semitonal voice leading binds chords together: it is this property which the hyper-hexatonic system treats as *the* criterion of relatedness. Yet, in the progression from C major to D major, the potential semitonal movement of an individual voice is not considered.

Considering the voice leading efficiency of individual voice leading paths provides a complementary perspective to the total VLE score. It enables a reconsideration of the idea that progressions with high VLE scores are unparsimonious, and reveals a limitation of reducing progressions to their maximally efficient voicing. Ironically, the maximally efficient voicing of a progression with a high VLE score hides potential semitonal voice leading in individual voices. Ex. 3.15(a) shows that this is also true of a downward whole-tone step progression; Ex. 3.15(b) illustrates the same point in tritone progressions.³⁰ It is possible that the maximally smooth reduction can mask a smoother

alternative, as shown in Ex. 3.15(c). In this progression G rises to B \flat , yet G to F would be a smoother individual voice leading path. Finally, the bottom line of Ex. 3.15(a), and Ex. 3.15(d) show that some progressions contain an equally parsimonious alternative individual voice leading path, that the reduction does not employ.

As a whole, Ex. 3.15 shows that progressions with high VLE scores contain potential smooth voice leading which is not expressed in the maximally efficient voicing. For this potential parsimony to be unlocked, ‘the law of the shortest way’ must be overturned, which is what happens in much triadic music. The parsimony of the progressions around the perimeters of the hexatonic and octatonic cycles is not being disputed. VLE scores are an effective way of showing that these progressions are the most efficient. But concluding that other progressions are unparsimonious because they have higher VLE scores would be a judgement formed on the basis of incomplete evidence.

Where a musical surface articulates the voice leading of a ‘maximally smooth’ reduction, as well as any hidden alternative, a stronger sense of progression is effected. The emblematic progression from *On Wenlock Edge*, Ex. 3.1, contains a third progression and a stepwise progression. The right-hand piano part follows the voice leading of the maximally smooth reduction. The major second progression from G major to F major has a VLE score of six, and the three parallel whole-tone steps contrast with the variety of voice leading movements in the preceding progression (one common tone, one semitone and one whole-tone). The role of the bass part should also be considered. In the first progression, the bass voice rises by a minor third leap, emphasising movement between the chords. In the second progression, the bass voice moves by step in contrary motion to

the upper voices. In doing so it articulates the equally parsimonious alternative that is not shown by the harmonic reduction, or heard in the parallel left-hand piano part. This example illustrates that the equally parsimonious alternatives, summarised in Ex. 3.15, can create a sense of voice leading connection that is absent from the maximally smooth voicing.

The opening of the slow movement of *A London Symphony*, Ex. 3.16, features stepwise progressions by a major second. The melodic line is harmonised with parallel triads of the same mode. E minor, G \sharp minor, its enharmonic equivalent A \flat minor, and C minor occur at the beginnings and ends of phrases. They are further emphasised by their duration, either three or four beats. The other two chords used, F \sharp minor and B \flat minor, last for one beat. The chords in this phrase could be arranged into two groups purely on the grounds of relative rhythmic and phrasing importance: E minor, G \sharp minor and C minor forming the first group, F \sharp minor and B \flat minor forming a second group. The group one chords can be found on the H0 cycle, each member of the group two steps away from its nearest member. These chords are shown on the ‘middleground’ level in Ex. 3.16. The group two chords both belong to the H2 cycle, the opposite cycle to H0. The ‘middleground’ level represents the prominent role played by these chords which equally divide the octave. E minor can be regarded as the tonic, but this is only because it occurs at the start of the phrase, not because it is prolonged through the phrase. The smooth ‘middleground’ contrasts with the parallel foreground. In this phrase third progressions and stepwise parallel progressions interlock, so that any one tonal centre lasts only for a short time. Parallel major seconds are more consistently present than a tonic key.

In the opening bars of 'The Cloud-Capp'd Towers' from *Three Shakespeare Songs* (1951), Ex. 3.17, linear semitones pervade the texture. The first progression contains two rising semitones (F \sharp -G and A-B \flat), the second progression only contains a semitone (G falls to G \flat in E \flat major to E \flat minor), and the third progression takes two steps around a hexatonic cycle from E \flat minor to B minor. But the progression from B minor in bar three to F major in bar four has a larger VLE score of five. In its maximally efficient voicing, B falls a tone to A, D falls a tone to C and F \sharp falls a semitone to F, as shown in the harmonic summary. In Vaughan Williams's voicing, the soprano part falls from B to A, and the first alto and second tenor parts articulate the most parsimonious voice, the falling semitone from F \sharp . But the second bass highlights another semitone movement from B to C. Because the musical surface can voice the same note twice, it is possible to include both the semitonal voice leading movements contained in B minor to F major: B can rise to C, and F \sharp can fall to F. At bar 3⁴ the addition of G \sharp as a lower auxiliary note to A in the first tenor, and E as a passing note that rises to F in the second alto and first bass, means that a total of four semitonal steps are taken across the bar line. Prominent semitonal voice leading is sustained throughout this phrase. In this context the hexatonic relationship sounds no less parsimonious than the subsequent tritone progression.

But in *O Vos Omnes* there are unparsimonious step progressions (Ex. 3.2). E \flat minor falls to D \flat minor (VLE score 6) in bar C.5. A potential semitone from G to A \flat is not realised. As the texture is largely parallel a number of equally parsimonious alternatives are not heard, such as F rising to G in the progression from D \flat minor to C minor (bar C.5²⁻³). However, a number of semitonal voice leading paths in third relations are avoided. For example, in the progression from F major to D major (bar C.4, VLE

score 3) the highest voice has F in the first chord, while the following chord places F# an octave below in the lowest sounding voice. The same pattern is followed in the progression from E \flat major to C major at bars C.6-7. Here the continuity of the harmonic reduction articulates a counter-coherence to the musical realisation.

Neo-Riemannian models highlight and inter-relate the most efficient triadic progressions. Emphasis is placed on semitonal voice leading as a strong bond of connection. But semitonal voice leading is not particular to the most efficient progressions. Twenty-one of the twenty-three progressions from C major to other consonant triads contain at least one possible semitonal voice leading path. The two that do not are C major to A minor, which has two common tones, and C major to G minor. It is perhaps paradoxical to suggest that stepwise progressions are unparsimonious, when each of the voices is moving by step. But the combined impact of three whole-tone steps does contrast strongly with one voice moving by one semitone. Voice leading efficiency scores highlight the potential for stepwise and tritone progressions to move by small steps but remain relatively unparsimonious, while third progressions moving by small steps are bound to produce parsimonious textures. However, prominent semitonal voice leading can also connect those progressions with higher VLE scores.

If voice leading parsimony can occur in almost any triadic progressions, the role of voice leading efficiency in musical contexts can only be explored through analysis. I will now consider 'From far, from eve and morning' and *O Vos Omnes* as case studies where Vaughan Williams's 'characteristic' progressions occur frequently, drawing on Neo-Riemannian theory and modalised tonality.

‘From far, from eve and morning’

This short song, given as Ex. 3.18 employs a ternary design, summarised in Table 3.3. The opening ‘characteristic’ progression in the piano part is immediately repeated in bars 5-7, with a different vocal line which includes a G_{\natural} to contrast with the earlier G^{\sharp} . The singer’s last note in this section is G^{\sharp} (bar 11), so the three appearances of $\hat{3}$ in the vocal line during this section repeat the pattern $G^{\sharp}-G_{\natural}-G^{\sharp}$ from the opening chord progression over a longer passage. The chord progression at the end of this section, E major – B major – C^{\sharp} major, shares its VLE scores of three and six respectively with the beginning of the opening phrase. The parsimony of E major to B major is minimised by the absence of contrary motion between the hands (although they do not move exactly in parallel), while contrary motion smoothes over the larger VLE score of B major to C^{\sharp} major. The first two chords affirm the tonic major with a I-V progression that contrasts with the modalised tonality of the opening bars. The top line of the piano part articulates $\hat{8}-\hat{7}^{\sharp}-\hat{6}$, in bars 8-10, where the earlier progression had $\hat{8}-\hat{7}-\hat{6}$, supporting the sense that earlier modal alternatives are being recast as modal alterations. As soon as diatonic E major is affirmed, the C^{\sharp} major triad of bars 10-11 challenges it. This chord sounds as a chromatic mediant to the tonic, the E^{\sharp} requiring resolution if the tonal centre is to remain unchallenged. The middle section starts in F^{\sharp} , and so the C^{\sharp} major chord can be retrospectively reinterpreted as the dominant of the new key. Consecutive perfect cadences articulate the song’s two main key centres during bars 8-12, although the progression from C^{\sharp} major to F^{\sharp} minor is interrupted by a section break.

During bars 12-15, F^{\sharp} Dorian is affirmed with tonic and dominant minor harmony. While the vocal line in the first section emphasised B, it oscillates about C^{\sharp}

during bars 12-17. This pitch is sustained through consecutive third relations in bars 15-17. The progression from C# minor through A major to F# major could be thought of as a reworking of functional relationships. In F# minor, these chords would be v-III-I. By 'altering' the mode of the dominant and the tonic chords (from a functional perspective) the inter-relationships of the triads changes. It is difficult to hear the mediant prolonging the dominant when the potential middleground v-I relationship is so much weaker than the foreground III-I. The voice leading strength of the III-I connection is emphasised by the descending chromatic viola figure in bar 16. The rising semitone from A to A# transfers from the viola to the second violin. Contrasting voice leading efficient scores play a role in this progression: C# minor to A major is maximally efficient, but the next progression has a VLE score of three. It creates a strong sense of harmonic motion, whilst remaining fairly efficient. This strong mediant progression could be compared with a perfect cadence, which shares the same voice leading efficiency score. Both progressions can be tonally affirmative, with a strong harmonic motion towards the second chord.

Bars 15-17 are repeated sequentially, one tone lower, during bars 18-20. Given this repetition, E can be proposed as the tonal centre during these bars. The progression from G major to E major, which featured in the 'characteristic' harmonic progression from the opening of the song, affirms this tonal centre modally, and again this is a stronger relationship than a theoretical middleground motion from B minor to E major during bars 18-19. But the overlapping pitch resources of different modally flexible pitch centres enable another possible reading. The chord of F# major at bar 16 was a moment of arrival in F#. The following B minor chord suggests a reinterpretation of the preceding F# as V of B. This tonal centre could be continued until bar 21, through chords i, VI, IV, vii,

i. The melody oscillates about B during bars 18-21, which suggests E as the tonal centre, because the melody has circled around the dominant until this point in the song. The last chord of the middle section can be heard as either the tonic of B minor or the dominant minor of E major.

The closing bars affirm the tonic, recalling the two progressions from the opening A section in reverse order. The chromatic mediant, C# major, lying outside the CMS, is rejected in favour of a restatement of the opening chords within the CMS. Phrygian pitch resources combined with a tonic major triad affirm the tonal centre and achieve closure. This shows how modal pitch resources, depending on the context created, can effect closure on a secure tonic, even without use of an established cadential formula. Plagal, or substitute plagal cadences might feature in modalised tonality, as shown by many of the examples in Chapter Two. But modalised tonality also contains a wider range of harmonic and tonal strategies. Characteristic progressions may raise uncertainty as to the tonality, or as in 'From far, from eve and morning', tonal centres may be sustained and affirmed by these same progressions. In addition contrasting VLE scores can be juxtaposed creating varying degrees of progression between chords. Through their shared VLE score, and identical mixture of voice leading intervals, the potentially directional effect of chromatic mediants can be compared with the role of the perfect cadence in common-practice tonality.

O Vos Omnes

The opening four bars establish C as a tonal centre, and contain a number of modal scale degrees all of which can easily be understood in relation to C (Ex. 3.19). Two harmonic

elements that will play a significant role in the piece as a whole are introduced. Firstly, parallel triads, in bars 1-2, and secondly, the use of \flat VII-I as a cadential progression in bar 4.

The first phrase is followed by an abrupt shift of tonal organisation. The chords in bars 5-9 are all from the same hexatonic cycle. The C major triad from the end of bar 4 is followed by a unison C and then A \flat minor, forming a hexatonic polar relationship with the previous triad. This is followed by E minor, which is two steps away from A \flat minor on the hexatonic cycle. The profusion of semitonal voice leading, and the repetition of the interval of a major third between the roots of the triads, gives these bars a distinctive sound. The properties of the hexatonic cycle show how the triads are related, in a manner that cuts across conventional tonal procedures. In addition, each chord is in root position, so the equal division of the octave is apparent. A further third relation, E minor to G minor to E minor (VLE score 3), marks the end of this short hexatonic progression, before a return of parallel stepwise motion leads to a second \flat VII-I cadence in C (bars 11-12). No alternative key centre to C was established during the phrase, although the equal division, and the use of E minor triads for the majority of the middle four bars, show that the phrase was not clearly in the tonic either. D is suggested as a tonal centre in the third phrase, simply by its frequent presence. A hexatonic pole, which can signal a suspension of tonal orientation as in the previous phrase, actually establishes the tonic minor at A.7.

From bars 1-A.9, C has referential status, but as a point which recurs rather than being sustained, and certainly not prolonged. Tonal uncertainty is achieved, not through dissonance, and without clearly establishing any other pitch centre, but by limiting the presence of the tonic, so that it is understood as such retrospectively rather than by

controlling and organising musical material about itself. C is most clearly established during bars A.7-9.

The next phrase continues this tonal stability at first, with a solo part that implies C Dorian or C Aeolian. A more disruptive third relation occurs in bar B.6 between C minor and E \flat minor. In this context, the G \flat sounds more in need of chromatic resolution than as a modal alternative to G \sharp . The following phrase, bars B.7-C.2, at first establishes a stable pitch resource and tonal centre of C Dorian. Surprisingly, an E \flat minor triad returns, to end this phrase. In apparent response to this, an answering phrase starts in E \flat (bar C.3), and returns to end in C minor, affirmed by the cadential \flat VII chord (bar C.7). After some tonal ambiguity in previous phrases, a clearer tonal direction is articulated during bars B.1-C.7, from C to E \flat and back again.

By contrast there is tonal uncertainty in the next passage (bars D.1-E.6). The texture becomes more contrapuntal, taking the emphasis away from prominent tonal shapes in the upper part that had helped to define C as the tonal centre in earlier passages. This is a more extended example of tonal uncertainty than occurs earlier in the piece. There is some emphasis on E minor in bars D.14-E.1 but again the phrase ends on a C major chord, as if this is the tonic of the piece. When this chord arrives at bar E.5 it is more obvious that C has failed to sustain itself through the intervening material rather than there being a clear sense of reaffirming this referential sonority.

This gives added significance to the tonal orientation of the closing section. A textural change marks the start of this section, as male voices enter for the first time. The first phrase of this section starts on A, but ends on C. The next phrase also starts on A (bar F.7), but there is a moment of equivocation between two tonal centres: the first two

chords, A major to D minor, could be either v-I on D or I-iv on A. By the end of the phrase, the possibility of D is resisted, and A is established as the tonal centre with a VII-I cadence.

A number of characteristic third progressions follow during the closing bars of the movement and these are represented in Ex. 3.20. There is a strong sense of harmonic progression between each of the chords, reflected by the VLE scores of three. The CMS on A is exceeded by an F# major, but the A# is resolved into the following D major triad, still functioning as iv in A (G.1-3). While C failed to sustain during the earlier stages of *O Vos Omnes*, neither A is more successfully sustained in the closing passage. The placing of chords at the beginning and ends of phrases gives them a degree of referentiality sufficient to remain through the third progressions.

O Vos Omnes contains many ‘characteristic’ harmonic progressions, with examples of both parallel stepwise movement and third relationships. Tonal centricity is an important element of this music, and while the status of C as a referential chord is contested for most of the piece, A eventually emerges as a secure tonic. The numerous third progressions can be understood in the context of these tonal tensions.

Conclusion

The parsimony of Neo-Riemannian triadic models is sometimes shared by examples from Vaughan Williams’s music, even though it is unusual for an extended passage to draw on a particular cycle. Neo-Riemannian theory does not provide a thoroughgoing ‘explanation’ of how this music coheres but it does add another dimension to the elements of modalised tonality, chromaticism and juxtaposition previously identified.

Cohn observes that Neo-Riemannian theorists and the nineteenth-century theorists who inspire their work study chord progressions distinguished by triadic transformations, common-tone maximisation, voice leading parsimony, mirror or dual inversions, enharmonic equivalence and are more generally informed by patterns that can be found on the *Tonnetz*. But while nineteenth-century theorists were bound by some or all of diatonic tonality, harmonic function, and dualism, 'Neo-Riemannian theory strips these concepts of their tonally centric and dualist residues, integrates them, and binds them within a framework already erected for the study of the atonal repertoires of our own century [pc set theory].'³¹ It would appear that once the theoretical stripping of tonally centric residues has been completed, Neo-Riemannian models can be brought back into contact with tonality through analysis. Cohn does this himself with respect to Schubert's B \flat major Piano Sonata. With regard to Vaughan Williams's music, Neo-Riemannian theory confronts elements of modalised tonality, chromaticism and triadic juxtaposition.

The analytical examples in this chapter reveal a range of effects result from these combinations. In particular this shows that 'the' properties of a triadic progression will in fact vary depending on the musical context. In *A Sea Symphony*, the hexatonic polar relationship is a chromatic resolution with smooth voice leading in all parts. In *Job* a pair of hexatonic poles are juxtaposed without chromatic resolution in favour of either chord (Ex. 3.12, G major - E \flat minor, bar Rr.12-13). Smooth voice leading is realised in the solo part, while each voice in the accompaniment moves by a third or more. Even so, the smooth voice leading paths can be heard across the parts.

Cohn pointed to his proposed 'alternative mode of determination' as an analytical parallel to Kramer's 'counter-coherence'. There is some space between the two ideas:

although ‘alternative’ is similar to ‘counter’, ‘determination’ is different from ‘coherence’. Any number of things might be coherent, while determination suggests a fixed plan which is more closely followed. A plan, such as a hexatonic cycle, might be followed in certain harmonic progressions by composers including Schubert and Brahms. In that case there may be a ‘counter-coherence’, adhering ‘to an alternative mode of determination’. But complete circling is not a feature of Vaughan Williams’s chord progressions. Instead, I propose that Neo-Riemannian theory offers a ‘counter-coherence’ in those progressions featuring juxtaposition, one that may be highlighted or disguised by the music’s texture. In the tonally abrupt modulation from G major to E major in the *Mass in G Minor*, smooth voice leading is highlighted: this is a counter-coherence. In a chromatic progression like the one which opens *A Sea Symphony*, the smooth voice leading is perhaps an ‘extra coherence’ on top of the chromatic resolution. In the progressions within the resources of modalised tonality, a Neo-Riemannian approach reveals additional properties, but the role of tonal centricity is not substantially challenged. The one consistency through all these outcomes is that Neo-Riemannian theory enables consideration of voice leading efficiency, a concept which, regardless of one’s approach to root relations, is not raised through conventional tonal or modal harmonic analysis.

Kopp’s study of chromatic transformations has a similar utility in this context, offering a means of organising mediant relations by the number of common tones. The mediant relations with two common tones often occur in Vaughan Williams’s music, however they do not stand out as characteristic because they are diatonic. The progressions from E major to C# minor are illustrative at the start of the ‘E major theme’.

A pentatonic scale is used at this opening before a wide range of modal alternatives is introduced during the phrase. In the first few bars, two common tones offer a source of temporary stability. The chromatic mediant group are those chords which most frequently occur in ‘characteristic’ progressions: major triads a major or minor third apart. All of these progressions feature one common tone and contain some chromatic voice leading, from a diatonic perspective. In Vaughan Williams’s music these progressions may be within the resources of a single CMS, they can be chromatic, or modulatory, or used in juxtaposition. But Vaughan Williams’s characteristic thirds are not restricted to the chromatic mediant group: the disjunct mediants feature at times, including the hexatonic polar relationships. From Kopp’s perspective these chords are not directly related.

While third progressions are a prominent element of Vaughan Williams’s harmonic language, stepwise parallel progressions also frequently occur. These may challenge the understanding of a passage in terms of modalised tonality, and do not appear strongly related by their VLE scores. However, investigation of relationships with high VLE scores suggests that semitonal voice leading may play a role in the connection of these chords which can also be voiced in a maximally unparsimonious arrangement. Paradoxically, stepwise parallel progressions, which generate a coherence in one sense, are most inefficient according to their VLE score. In addition, semitonal steps can help smooth the gap between triads a tritone apart, which can easily appear to be unparsimonious relationships.

In the context of the pieces from which they are taken, characteristic progressions may articulate or undermine a tonal centre depending on the particular example. In ‘From far, from eve and morning’ for example, characteristic progressions established the tonic

and effected closure. In *O Vos Omnes* the security and function of tonal centres was drawn into doubt by similar progressions. In addition to these conclusions about Vaughan Williams's harmony, two methodological points arise. Firstly, the idea of a Vaughan Williams's 'theory' seems even less likely than it did in the previous chapter, as such a wide range of tonal and harmonic strategies are employed. Secondly, processes of disunification occur. These can be more difficult to theorise than processes of unification, and certainly resist graphical representation. But, as the next chapter will show, there are still aspects to this composer's musical language that have not been considered at all so far. There are a significant number of compositions where strikingly different elements are juxtaposed within an overall tonal strategy, and still others where the effectiveness of a tonal centre is substantially undermined.

ENDNOTES

¹ Richard Cohn, 'As Wonderful as Star Clusters: Instruments for Gazing at Tonality in Schubert', *Nineteenth-Century Music* 22/3 (1999), p. 232.

² Anthony Pople, 'Vaughan Williams, Tallis and the Phantasy Principle', in Alain Frogley, ed., *Vaughan Williams Studies* (Cambridge: Cambridge University Press, 1996), p. 67.

³ I define consonant triads as all major and minor triads. This contrasts with dissonant triads, such as augmented and diminished triads, and diatonic triads, formed from notes of the diatonic scale.

⁴ David Lewin, 'A Formal Theory of Generalized Tonal Functions', *Journal of Music Theory* 26/1 (1982), pp. 23-60; *Generalized Musical Intervals and Transformations* (New Haven: Yale University Press, 1987).

⁵ Cohn, 'Neo-Riemannian Operations, Parsimonious Trichords, and Their Tonnetz Representations', *Journal of Music Theory* 41/1 (1997), pp. 1-66.

⁶ Cohn, 'Introduction to Neo-Riemannian Theory: A Survey and Historical Perspective', *Journal of Music Theory* 42/2 (1998), p. 167.

⁷ Cohn, 'Weitzmann's Regions, My Cycles, and Douthett's Dancing Cubes', *Music Theory Spectrum* 22/1 (2000), p. 89.

⁸ Ibid., p. 18.

⁹ This table can be found in Cohn, 'Square Dances with Cubes', *Journal of Music Theory* 42/2 (1998), p. 284.

¹⁰ Cohn, 'Weitzmann's Regions', p. 98.

¹¹ Charles Wilson, 'Nonatonic Networks', unpublished manuscript.

¹² A similar diagram can be found in Cohn 'Introduction', p. 172.

¹³ Cohn, 'Neo-Riemannian Operations', pp. 1-2.

¹⁴ Cohn, 'Neo-Riemannian Operations', pp. 24, 33-5.

¹⁵ Jack Douthett and Peter Steinbach, 'Parsimonious Graphs: A Study in Parsimony, Contextual Transformations, and Modes of Limited Transposition' *Journal of Music Theory* 42/2 (1998), pp. 246-9.

¹⁶ Cohn, 'Maximally Smooth', pp. 12-13.

¹⁷ Arnold Schoenberg, *Theory of Harmony*, trans. Roy E. Carter (Berkeley and Los Angeles: University of California Press, 1978), p. 39, quoted in Cohn, 'Maximally Smooth', p. 38, n. 36. Schoenberg suggests Bruckner is the likely source of the expression 'law of the shortest way'.

¹⁸ Ibid., p. 235.

¹⁹ David Kopp, *Chromatic Transformations in Nineteenth-Century Music* (Cambridge: CUP, 2002).

²⁰ Ibid., p. 131.

²¹ Ibid., p. 177.

²² Harrison, 'Nonconformist Notions of Nineteenth-Century Enharmonicism', *Music Analysis* 21/2 (2002), pp. 115-60.

²³ Pople, 'Vaughan Williams', pp. 65-9.

²⁴ Cohn, 'As Wonderful', p. 232.

²⁵ A harmonic reduction for this passage has not been provided as only three triads are used for most of the passage. These are D major, F# major and Bb major. They all belong to the same hexatonic cycle and Weitzmann region. The VLE score of every possible progression between them is two.

²⁶ Felix Salzer & Carl Schachter, *Counterpoint in Composition* (New York: McGraw-Hill, 1969), p. 215, quoted in Cohn, 'Maximally Smooth', p. 11.

²⁷ Cohn, 'Maximally Smooth', pp. 30-31. His examples containing pairs of hexatonic poles are taken from *Parsifal*, Liszt's Polonaise I from *Die Legende der heiligen Stanislaus*, and Franck's Quintet for Piano and Strings, first movement.

²⁸ Ibid., p. 21.

²⁹ See note 17.

³⁰ Following Table 3.1, chord progressions are discussed from a common starting point of C major. The chord swapping procedure can also be applied to the progressions shown in Ex. 3.15 to show the same voice leading properties from a common starting point of C minor. For example the voice leading properties of C major to F major are replicated by C minor to G minor.

³¹ Cohn, 'Introduction', p. 169.

Chapter 4

Locating and Challenging Tonal Centricity

Analysis of ‘From far, from eve and morning’ and *O Vos Omnes* prompted consideration of relationships between local chord progressions and tonal centres in the last chapter. Depending on the context, chord progressions featuring modal alterations can sustain a tonic, or disrupt its stability. On the basis of the analyses in Chapter Two, it was proposed that tonal centres are sustained, rather than prolonged, when tension within the scale is reduced by modal alterations. In this situation, two tonal centres can comfortably coexist. However, the lesser stability of one tonic might also open a space for the confrontation of different tonal centres.

At least two analytical strategies can be engaged when the stability of the tonic comes into question. One could look towards other musical elements to provide a source of coherence and unity, such as rhythm or texture. This might lead to the suggestion that tonal centricity makes a less significant contribution to achieving coherence or unity in that composition, compared with more tonally centric works. Alternatively the analyst could explore how tonal centricity is lost and what tensions are generated within the piece. Maus’s point that analysts have tended not to seek and explore disunity is relevant here (as discussed in Chapter Two). The ‘habitual commitment to unity’ that he ascribes to music analysts would suggest that the first of the two options is the strategy most commonly pursued. This is reflected by the following methodological point made in an analysis of Debussy’s String Quartet (1893):

As harmonic progression in this music does not project unity exclusively in tonal terms, prevalence of motivic manifestations in the vertical dimension may aptly substitute for unifying tonal principles.¹

Besides this apparent choice of tracing the potentially disunifying role of tonality (as advocated by Maus), or unity in other musical parameters (as practised by Yih), Schoenbergian analysis provides a further alternative. In *Structural Functions of Harmony*, the concept of ‘monotonicity’ is proposed:

According to this principle, every digression from the tonic is considered to be still within the tonality, whether directly or indirectly, closely or remotely related.

Modulation becomes a redundant concept, replaced by ‘regions of the tonality, subordinate to the central power of a tonic. Thus comprehension of the harmonic unity within a piece is achieved.’² Schoenberg makes a compelling, thoroughly illustrated case for monotonicity in the repertoire that he studies. In this chapter, however, I analyse Vaughan Williams’s music, where elements of diatonic tonality and modal resources coexist. Tonal ambiguity plays a crucial role in the opening phrase of the Fifth Symphony ‘Romanza’, Ex. 4.1, and provides a short example of tonal tensions that will be explored throughout this chapter.

The first two chords in Ex. 4.1 (C major to A major) form a chromatic mediant relationship. Smooth voicing in the upper parts, highlights the fairly parsimonious voice leading of this progression (VLE score 3). The third chord, G minor, is disjunct from the preceding A major triad, and, with a VLE score of five, contrasts with the opening progression. No one tonal centre is affirmed by the progression from A major to G minor. The upper voice completes a third progression (G-A-B \flat). Looking at the whole phrase for context, the upper voice of the triads outlines this third progression more clearly, and G minor is the last chord of the phrase (bar 11). But another more prominent linear element is the Cor Anglais solo, which clearly outlines C major, the

first chord. Every other chord in this phrase is A major, and while its first appearance is most obviously as a chromatic mediant in C, later alternation of G minor and A major triads start to sound as vii-I in A. The F \sharp in bar 10 momentarily suggests A major, but that is immediately contradicted by F \natural in the following bar. Through the use of just three triads during the phrase, a variety of tonal and modal associations are discernible. There is no resolution in favour of either C or A.

This phrase is tonally ambiguous and the analyst could highlight the constant texture as a source of continuity. But the tonal ambiguity is undiminished by this: it remains the case that two tonal centres are suggested. There is no established method for graphing the simultaneous suggestion of tonal centres or their inter-relations. The relationships are not temporally sequential, hierarchical or ordered according to any obvious pattern. For this reason, a systematic analytical visual representation is resisted. While established labels and ideas may be useful at times, such as roman numerals or Schenkerian concepts, written commentary is particularly vital in the analysis of resistance, ambiguity and juxtaposition. In one sense this is a departure from theory, in that one particular approach is not immediately at hand. But it remains entirely possible to pursue an analysis which is informed by and engages with theoretical issues. In this chapter I will analyse tonal strategies where modalised tonality is challenged, undermined, juxtaposed within a tonal design, and resisted.

The Limits of Modalised Tonality?

Tonally unstable seven-note scales are employed in passages from *Sancta Civitas*. The scale in Ex. 4.2 combines the lower half of the Lydian mode with the upper half of the Aeolian mode. It has been described as the ‘so-called Lydian minor’ scale.³ The scale is modified so that it has severe implications for the stability of the tonic. It can be described as a whole-tone scale (C-D-E-F \sharp -A \flat -B \flat) plus dominant (G). The way that

this scale is employed in certain passages of *Sancta Civitas* emphasises major triads, and rising third progressions on the first and third degrees. This emphasises the notes C, E, and G \sharp which equally divide the octave, and disrupt the scale degree functions of the notes (Ex. 4.3). A slightly less altered scale is also used (Ex. 4.4). This is the Lydian scale with a flattened seventh. A pedal bass note on the third degree sounds throughout the passages where this scale is used (such as Ex. 4.5), preventing the tonic from being established firmly.

Modal tensions are also explored in the Fourth Symphony. At some points in this piece tonal centricity is heavily obscured. This occurs during the opening section of the first movement, for example. Modal alteration becomes relevant during later passages. Ex. 4.6 shows the beginning of the second subject section. Syncopated chords, featuring major sevenths and minor seconds alternately, attack the tonal centricity of the theme in the strings. The melody (but not the accompaniment) starts in D using a modalised six-note scale (D, E, F, G, A, C). The texture remains constant while the theme suggests a number of tonal centres. The section ends with an unexpected arrival in F \sharp , the melody drawing from the six-note scale transposed up a major third.

The third theme section further explores a six-note scale on D. The first seven bars given in Ex. 4.7 mostly remain within a scale comprising the notes D, E, F \sharp , G \sharp , A and C. Two tritones are featured: D-G \sharp and F \sharp -C. These contrast with the scale used in the second subject section, which had perfect intervals in the equivalent positions. The tonally disruptive tritones are emphasised in the bass part which repeats a pattern using the pitches D, F \sharp , G \sharp , A, C. This five-note pitch collection differs radically in its effect from that created by the pentatonic scales in the cadenzas of *The Lark Ascending*, or many other compositions by Vaughan Williams. The equivalent scale

degrees are employed, however. The group E, G, A, B, D ($\hat{1}$, $\hat{3}$, $\hat{4}$, $\hat{5}$, $\hat{7}$) at the end of *The Lark Ascending* can be compared with D, F \sharp , G \sharp , A, C ($\hat{1}$, $\hat{3}$, $\hat{4}$, $\hat{5}$, $\hat{7}$) in this example. This latter scale, rather than containing less tension than conventional diatonic resources, is inherently more unstable. The theme, blasting through the texture on the horns, emphasises F \sharp . The repetition of pitch patterns, D major triads at bars 8.4 and 8.7, and the small total pitch resource, suggests the possibility of pitch centrality in this passage. Yet the two possible candidates, F \sharp and D, are both disrupted by the pair of tritones. D is the most plausible tonal centre, given the repeated triads on this note, and the D-C-A motif in the upper strings. But this pitch certainly does not control or direct the music in these few bars. Instead there is a much clearer sense that D fails to be a successful tonic, just as the second subject melody failed to have any impact whatever on its ‘accompaniment’. Tonal and modal melodic shapes and chords suggest the idea of tonal centrality, yet the passage demonstrates the failure of a tonal centre to be established. The individual pitches fail to be secure scale degrees about a stable tonal centre. Besides the diatonic element of D major triads, scale degree functionality is suggested by modal melodic shapes but tonal centrality is not established with any security.

A distinctive feature shared by the extracts from *Sancta Civitas* and the horn theme from the Fourth Symphony is that a small pitch resource is employed in such a way as to disrupt the scale degree functionality of the notes. In only two places in these examples are different versions of the same scale degree used, and here one clearly subordinates to the other.⁴ The idea of modal alteration, which is central to my conception of modalised tonality, is extended to a point where the stability of the tonic becomes challenged by the materials within the scale itself. The dissonances created are not chromatically resolved, but they are not independent of scale degree identities

either. They are ‘altered’ scale degrees, a defining feature of modalised tonality; examples which stand at the limits of modalised tonality as they threaten to destabilise the tonic.

Undermining Modalised Tonality

The opening eight bars of *A Pastoral Symphony* are a typical example of modalised tonality (Ex. 4.8). The tonal centre, G, is established not by a cadence but by repeated returns to this note. B \natural and B \flat both feature with no sense of tension between them. The tonal centre is established but this is not G major or G minor. Emphasis of the first and fifth degrees by the bass line melody, and modal alterations, including a typical flattened seventh, suggest that this is modalised tonality on G. During the following bars of the first theme section (bars 9-B.9) G remains as the main tonal centre, but there is an additional element when E \flat emerges as another modalised tonal centre. But whereas D and E could coexist as tonal centres in a passage from *The Lark Ascending* using the same pitch resource, the tonal centres E \flat and G definitely clash here in *A Pastoral Symphony*. Elements of G remain continuously during the passage, sustained through a polyphonic texture. The E \flat element is confined to a stream of parallel second inversion triads (bars 9-A.3 and A.7-B.3). The upper voice of these triads could be heard on G, if the harmonisation was absent. The material on G remains more prominent throughout the passage. The modalised tonal material, secure at the opening, does not accommodate or confront the disruptive element on E \flat when it emerges. An unconventional cadence at bars B.5-6 is the first explicit confrontation of the E \flat element (represented by B \flat minor) and G (the chord of arrival). The initial resolution at bar B.6 is not sustained as the ‘cadential’ progression is repeated, and a new melodic element converts D \flat into C \sharp to link into the next section. The resolution achieved by the cadence holds only momentarily, as the following three bars develop

an equivocal relationship between the two chords despite the predominant (though threatened) role of G during the opening of this symphony.

Tonal centricity is connected with structural concerns in the work as a whole, and so it is more appropriate to postpone consideration of these concerns until the next chapter. A comparison of this passage from *A Pastoral Symphony* with the opening of the ballet score, *Job* (Ex. 4.9), reveals a contrasting strategy of undermining modalised tonality. The two examples share parallel harmonic movement and exploration of G as a tonal centre; both engage the pastoral style of composition. In the passage from *Job*, however, the tonal centre is less clearly emphasised. During the opening six bars, G Aeolian provides the melodic pitch resource. The melody reaches up to the flattened seventh before arriving back on the tonic degree in bar five. In itself this is straightforward, and the bass is also uncomplicated, moving upwards by step, harmonised by parallel triads. The rising patterns depart from G, using the notes of the Dorian and Aeolian scales. However, the melody and bass do not appear harmonically co-ordinated, as the melodic arrival on G in bar 5 is above a bare fifth A-E in the bass. During bars 8-13 the harmonic resources range more widely as E \flat major, E minor, A \flat minor and B minor triads are juxtaposed. In bars 8-11 a melodic fragment in G is repeated as a remnant of this tonal centre in a defamiliarizing harmonic context. Surprisingly, from a tonal perspective, little tension seems to be generated by these juxtapositions, and elements of G quickly return. An ostinato figure suggests G from bar 13³-A.6, and the opening melody returns twice, at bars 13³ and 15¹. The bass line holds an E \flat pedal from bar 13³, a reminder of the harmonic freedom of the preceding bars, but when it falls to D at bar A.2², this signifies G regaining some stability.

During the opening twenty bars of *Job* no sustained dissonances are created. Where dissonance does occur it is momentary and inconsequential. The sense of scale degree functionality is ambiguous during the passage, without generating tension. This contrasts with the opposition of E \flat and G in the opening bars of *A Pastoral Symphony*. G retains a degree of referentiality in this extract from *Job*, but pitch materials from outside the combined modal scale are used as well.

This is an example of pastoral music, but that is not simply due to the scene that is being depicted ('Job and his family sitting in quiet contentment surrounded by flocks and herds'). Tensions and oppositions are not emphasised, rather, different chords and pitches coexist. The idea of scale degree functionality is not abandoned as tonal and modal melodic shapes and harmonic groupings are used extensively, and melodic material is heard in G. But the hierarchy of conventional tonality is reduced, and the pitch centrality of modal melody is situated amongst unrelated triads.

Modalised tonality, with its full range of possibilities expressed as the combined modal scale, can feature reduced or increased tonal tension compared with diatonic tonality. Tonal centrality remains important where this concept is applied. In a passage such as the opening of *A Pastoral Symphony*, modalised tonality on G is challenged by another element. But in the opening of *Job*, although there are the now familiar features of Vaughan Williams's music including modal melodic patterns, parallel chords and triadic harmony, pitch centrality does not always govern, and modalised tonality is challenged as an organisational model. Of course the music being compared belongs to different genres, symphony and ballet, so the lesser significance of tonal centrality in the latter is perhaps unsurprising. In particular, it becomes clear from these examples that just as the principles of diatonic tonality are

challenged by modalised tonality, the latter is also one of a number of strategies employed by the composer, rather than an all-encompassing principle.

Juxtaposition as a Tonal Strategy

The 'Romanza' from the Fifth Symphony makes a particular feature of juxtaposition. The opening bars of the movement suggest two tonal centres simultaneously, as discussed earlier in this chapter. A structural plan is given in Table 4.1, showing that this phrase returns a number of times during the movement. (The main themes are given as Ex. 4.10.) At first glance many of the intervening passages seem easy to account for tonally, as they employ a white note pitch resource exclusively (these passages are bars 1.1-2.10, 3.1-5.5 and 8.19-10.15). The pitch resource is stable in these sections - only these seven pitches are used, and they all frequently recur. The beginning of the first 'seven-note' passage illustrates this as the first two chords E minor⁷ and F major, include all the pitches between them. The tonality of the melody is clearly A Aeolian. However the harmonic accompaniment does not affirm A strongly. Non-triadic chords occur quite frequently, sometimes creating dissonances that are not resolved: Ex. 4.11 shows two examples. These dissonances do not generate tension. Instead the contrapuntal texture and frequent stepwise movement of the individual parts creates a strong sense of continuity. The ends of phrases are usually not clearly marked, and sometimes rhythmic motion in the lower voices provides a link. Repeated simple melodic shapes, such as stepwise descent through a perfect fourth and stepwise ascent through a major or minor third play a significant role. These are not specific motivic connections or developments but they do also create continuity in these passages. The lack of a clear tonic could create a sense of disunity in other contexts, but the stable pitch resource contributes towards a strong sense of continuity. The end of a phrase at bar 1.17 is illustrative of these points (Ex.

4.12). A change in register and texture mark bar 1.17 as the conclusion of this phrase, yet a cadence can still be felt from this bar into the next, by the movement of the outer voices. E is subtly articulated as a tonal centre, but the stability of the pitch resource also plays a role in creating a sense of continuity.

Repetitions of the opening phrase are interspersed with the white-note sections during this movement, although surface continuity masks juxtapositions within the tonal strategy. The movement can be divided into a sonata form, with a varied exposition repeat. This designation is supported by clear thematic development and a return of material in the later stages, as shown in Table 4.1. However the structure is to some extent compromised by the smooth transitions between sections. This has significance for the tonal strategy as the movement between the different thematic ideas, and their contrasting approaches to resisting tonal centricity are smoothly negotiated. For example, thematic material at the end of the second exposition is immediately developed. Deciding the exact starting point of the development is therefore a slightly arbitrary judgement. The varied exposition repeat indicates how material is developed across the movement as a whole, and this has significance for the overall tonal direction of the movement. A rotational form is also proposed in Table 4.1 that will be discussed in the next chapter.

The first white-note section may avoid building tonal tension and clearly affirming its tonic. But the importance of tonal centricity gradually changes in the later white-note sections. In the first passage, some A minor chords were marked with affirmatory 4-3 suspensions. But in the second passage these are frequently repeated (the first three examples are at bars 3.1^{1-2} , 3.5^{1-2} , 3.8^{2-3}) so that there is a greater stress on tonal arrival. The A Aeolian tonality becomes clearly established from bars 3.10-3.17, the melodic repetition of bars 3.10^3 - 3.11^2 an octave higher at bars 3.14^3 - 3.16^2

with similar harmonic accompaniment contributes to the sense of stability and arrival. This certainty does not last, as the following bars return to the style of tonal writing where the pitch resource remains stable while the tonal centre is less clear. A, F, and D all seem potential tonics.

This momentary grasping of stability has an elusive quality, and contrasts with much of the material in the development section. A more conventional notion of instability features here, in contrast with the absence of tension in the earlier white note sections. In the development tonal centres shift frequently and resolving the opening theme appears to become an objective, as ambiguity becomes a lack of stability, rather than a quality of the harmonisation. The conventional climactic breakthrough is not achieved in this section. Instead the material subsides into the recapitulation at bar 8.19. The white-note section uses the same thematic and harmonic devices as the parallel parts of the exposition(s) but there are also differences. As in the second white-note section, A Aeolian becomes more clearly established than in the first section. However, there is a lesser sense of something being denied, when the melodic shape associated with the achievement of stability returns once, but not twice. Its occurrence at bar 9.17 arouses the possibility of it being repeated as before, an octave higher. The first violins do reach up to the higher register, but the repetition does not occur. For a third time, the white-note section ends in tonal ambiguity within a stable pitch resource.

The repetition and development of material in this movement suggests the conventional symphonic model of progress towards, and achievement of, climactic breakthrough. This model is invoked but not achieved in the movement. But achieving stability turns out not to be an outmoded objective. One more element is introduced to the tonal strategy in the coda (Ex. 4.13). The opening theme returns,

suggesting two tonal centres but now leads into a final phrase of diatonic tonality. The movement ends with a viic-I cadence in A major. At the opening of the movement the A major triads, which gained prominence through their frequent presence, were the earliest signal of the movement's tonal goal. Yet it is only with hindsight that such a reading can be proposed. Instead the experience of listening is one of moving from tonal uncertainty to a point of arrival in the closing bars. 'Looking' across the whole of the movement, in the knowledge of A major as the finishing point, this is more of a movement not in A, rather than one which progressively achieves this through some dialectic or systematic working-out. The A major ending, whilst smoothly emerging out of the end of the recapitulation, is a surprise to the listener, the product of juxtaposition within the tonal strategy.

This arrival has a significance within the symphony as a whole. The first movement featured the failure to defeat a persistent C pedal with the 'tonic', D major. The second started and finished on A without ever really sustaining this tonality convincingly, so the tonal strategy during the third movement, ending in A major, makes this the first fully-fledged arrival of the dominant at the end of two movements which are related to this tonal centre in a variety of ways. The fourth movement is the only one to begin and end convincingly in the tonic key of the symphony's title. But Arnold Whittall expresses concerns about the end of the third movement:

The final cadences [of the third movement] are dangerously saccharine, and could even be interpreted as embodying the kind of spiritual balance and confidence which, in terms of this symphonic design, is premature. Such a form of spirituality can only be confirmed unambiguously after the crisis represented by the first movement has been explicitly confronted and resolved.⁵

The first significant establishment of the symphony's tonic, D major, occurs at the start of the fourth movement, well before the return of material from the first movement. Given this, the end of the third movement could be regarded as providing

a dominant preparation for this earlier point of return. Such a conventional device can only be regarded in quotation marks in the context of a symphony where tonal stability is problematised for much of the first three movements. However, it would allow for part of the third and the whole of the fourth movements to be considered as a larger area of arrival than the reading that emphasises the return of first movement material towards the end of the final movement. The juxtaposition of tonal ambiguity with diatonic tonality in the third movement occupies a pivotal position in an achievement of tonal stability that has significance for the whole symphony: it creates a larger frame within which the first movement thematic material returns towards the end of the fourth movement.

Where the achievement of tonal stability and the strategic positioning of diatonic tonality is significant in the Fifth Symphony, the oratorio *Sancta Civitas (The Holy City)* avoids any such conventional arrival. The epilogue style quiet ending, a common device in Vaughan Williams's music, returns to the material of the work's opening. It provides a frame of uncertainty, whatever occurs within is only a brief glimpse of stability. While Vaughan Williams set many church hymns, anthems and motets for liturgical use, this oratorio casts doubts upon the doctrinal certainties these other compositions celebrate. A quotation from Plato's *Phaedo*, printed only in Greek in the original score, was provided as a Preface:

Now to assert that these things are exactly as I have described would not be reasonable. But that these things, or something like them, are true concerning the souls of men and their habitations after death, especially since the soul is shown to be immortal, this seems to me fitting and worth risking to believe. For the risk is honourable, and a man should sing such things in the manner of an incantation to himself.

This quotation is indicative of Vaughan Williams's agnostic view of religion, but many aspects of the score reveal a sceptical approach to conventional celebration. The word 'Alleluia' is often set in a tonally unstable context, the first example of this

being at bars 1.9-2.8. A distant boys choir, singing ‘Alleluia, salvation, and glory, honour and power unto the Lord our God’ is given questioning support by a first inversion pedal in the orchestral bass. Celebratory text set to a pentatonic melody at bars 5.4-6.8 is juxtaposed with the Lydian minor scale discussed earlier in this chapter in the following bars. The conventions of Christian worship are represented and contextualised in this oratorio in such passages; elements of tonal stability are glimpsed but not established. This can be contrasted with the Fifth Symphony, a work which emerged from *The Pilgrim’s Progress*. The achievement of D major in the final movement, representing the reconciliation of the opposing tonal forces from the first movement, can be understood to reflect the arrival in heaven of the central character in Bunyan’s story. But in *Sancta Civitas* heaven is not reached, a vision of ‘a new heaven and a new earth’ is invoked instead. The passage where this text is set is given in Ex. 4.14.

The beginning of the extract features a pedal note, in common with many passages in this work. This held G \sharp adds to a pentatonic scale in the violin solo (E, F \sharp , A, B, C \sharp), contrasting with the preceding bars where an A \flat pedal clashed with G minor material. The pentatonic resource recasts the pedal as G \sharp (rather than A \flat) and leaves open the possibility of it being either $\hat{5}$ in C \sharp or $\hat{3}$ in E. The first ‘D’ to appear is at bar 36.9, a D \natural adds to the pitches previously used to form a seven-note pitch resource: either C \sharp Phrygian or E Mixolydian. The potential for E major evaporates as minor mode material on C \sharp is established, with phrases ending on C \sharp minor triads (although supported by G \sharp in the bass). When D \sharp occurs in bar 37.2, it forms C \sharp Aeolian and E is clearly not the tonal centre. It is as if the seven pitches of E major could not arrive together to complete the scale suggested at the opening of the section. Further alternation of D \sharp and D \natural illustrate that this is an example of modalised tonality

where the tonality becomes centred on C# while the second degree of the scale remains flexible.

A complete diatonic scale is not firmly established at any stage during *Sancta Civitas*. There are pentatonic passages, and a hexatonic scale during bars 3.5-4.1 suggests C major (over an E pedal). A great range of modally altered scales is used, often featuring the Lydian minor scale. Sometimes two conflicting tonal centres are simultaneously suggested, and the juxtaposition of material on C, E, and A \flat emphasises inconclusive equal division of the octave during passages near the beginning and end of the work. It could be suggested that the composer had moved beyond the simple resources of diatonic tonality, yet this returned in other works, such as the *Symphony in D Major*, where the range of contrasting tonal strategies employed during the work surely negates any possibility of its naive application. In *Sancta Civitas* the juxtaposition of different modal scales, the varying degrees of tonal stability, oppositions of tonal centres (either consecutively or simultaneously) and particularly the tonally elusive opening and closing passages resist the security of diatonic stability that is deployed in works such as the Fifth Symphony.

Resisting Modalised Tonality

In works where tonal instability is prominent, some allusion to tonal stability still features, often in the form of a reference to the pastoral style, where tonal oppositions were reduced rather than accentuated and explored. But the impact of tonal ambiguity does not rest upon the comparison of compositions. The predominance of triadic harmony suggests tonal stability in itself. The sonority is harmonically stable but it is being used in a destabilising context. In this section I analyse two related pieces which explore this possibility: 'The Cloud-Capp'd Towers' from *Three Shakespeare Songs*, and the fourth movement, 'Epilogue', of the *Symphony No. 6 in E Minor*.

It is impossible to understand the harmonic language of 'The Cloud-Capp'd Towers' in terms of any successfully established tonal centre, despite its use of conventional sonorities (Ex. 4.15). Voice leading is a significant element, however, with each part exhibiting remarkably smooth movement, as discussed in the previous chapter, and shown in Ex. 3.17. In progressions such as B minor to F major, the music's texture emphasises parsimony where the VLE score suggests a relatively unparsimonious progression. Smooth voice leading features throughout the piece. In the first soprano part, for example, there is only one phrase (bars 7-9) where the voice moves by an interval larger than a major third. A combination of stable vertical sonority, tonal indeterminacy, and voice leading smoothness, form key elements in the resistance of tonal centrality.

A Schenkerian reading of the opening phrase illustrates some tonal elements (Ex. 4.16). The treble reduces well, with B as a neighbour note to A. The triad outlined by the first three notes of the bass line, stated vertically in its minor form at bar 3², is the subdominant of F# minor. The dominant minor of F# commences the second phrase at bar 5³. Yet understanding these bars in terms of the key of F# seems counter to the listening experience. There are some problems in graphing the end of the phrase. At first, it is tempting to connect B to C with a slur, but then the second inversion C must surely submit to the root F. There are connections between the bass notes B and C, being a semitone apart, and the C and the F, being a (functional) fifth apart, and both of the sounding triad. But a Schenkerian reading would connect the root F to the preceding B, rather than connect the C to the preceding B. The F to B connection (a tritone) does not exhibit good voice leading. There is a conflict of foreground voice leading motion, and harmonic motion. Additionally, it would be peculiar to attach greater hierarchical importance to the penultimate chord of a phrase

over the ultimate chord. Thus, the Schenkerian sketch of Ex. 4.16 fails to account for the essential harmonic and melodic motion of the phrase.

As early as bar four it is fair to question whether a tonally based approach is useful to this analysis at all. Despite no tonal centre being successfully established, the idea of tonal centricity remains important, as further analysis will now show. A quick glance at the opening and closing of the piece reveals that the tonal expectation will be frustrated, with the first chord (F# major) and the last chord (F minor) being a semitone apart. The return of F# at bar 17¹, along with a reworked version of the first phrase suggests for a moment that this chord might be established as a key. F major returns at the end of this phrase, before a second return by F# (bar 22) is finally thwarted when the song ends on F, just as the first phrase did. So the returns of F# precipitate a repeated frustrating of that chord being established as a key, rather than any increased stability. The movement thwarts the stability any one chord might offer as a tonal centre, despite its extensive use of triadic harmony.

Some kind of relationship might be suggested between the chords on F# and F by their placement at the beginnings and ends of some phrases. David Lewin proposes the idea of substitution in an analysis of *Parsifal*.⁶ A \flat major is the tonic of the opera, while D is the tonic of the passage analysed (Amfortas's Prayer). In this context, Lewin reads appearances of A \flat as a substitute dominant of the local tonic, D. The idea of substitution is a suggestive way of accounting for the role of F in relation to F# in 'The Cloud-Capp'd Towers'. In bars 4, 21 and 23, chords of F major could be read as substitutes for a tonic, F#. Subdominant and dominant minor chords could then play a functional role. But this analytical 'solution' denies what makes the F major chord so striking - it is the difference between F# and F, rather than their similarity, which is important. Furthermore, the absence of a larger tonal context makes this reading

difficult to support.

The opening phrase is not only ‘not tonal’, but constitutes a rejection of tonality as a potential compositional strategy. The final slippage to F minor at the very end of the piece confirms the failure of the ‘tonic’, as this F chord is again heard as different from the F# of bars 1, 17-18, and 22. This would suggest that there are points of connection across the piece, based upon the non-compliance of F chords to a supposed F# tonic. Here, analysis reveals connections based on difference rather than similarity, frustration of expectation rather than fulfilment, a questioning of stability, rather than substitution. Lines of connection have been drawn across the first phrase (bars 1-4), and the return of opening material (bars 17-25). If articulations against established structural principles feature prominently, do they form a structure of their own? If so, we might term this a kind of ‘counter-structure’, or ‘counter-coherence’ in which tonal resistance is implicated. The idea of F# failing and falling to F could be such a ‘counter-coherence’. The way it is coherent is by its repetition at the start and twice at the end of the movement. It becomes a familiar pattern, a familiar failure, a central (and memorable) feature of the work, hence a ‘counter-coherence’. But in this case counter-coherence does not unify the piece as it does not bind together and connect all of the musical materials.

There does not seem to be an all-encompassing alternative mode of coherence to ‘explain’ the chord relationships in this piece, but the whole tone scale does have some role to play. This is illustrated in Ex. 4.17(c, d), which shows that triads based on every degree of the whole tone scale on A are heard during the piece. By contrast, only two notes from the other whole tone scale (based on F#) are heard as roots of triads, namely F# and A \flat . It is apparent that the unsuccessful tonic, F#, is distanced from other triads in the piece, from this perspective.

Besides the hexatonic progressions (discussed in Chapter Three) and whole tone elements, a descending chromatic chain can be found in the piece, shown in Ex. 4.17(e). This sequence is a vertical, descending chain of transformations on the enharmonically equivalent *Tonnetz* (Fig. 4.1). The chain is frequently interrupted, yet it keeps returning, moving from A minor at bar 7 to F minor, the final chord of the piece. It should also be noted that the chord of A \flat minor, presented in square brackets in the example does not occur. There is some distance then between the simple chain and what happens in the score. The chromatic descent is a line of continuity which surfaces and disappears at various stages. Sometimes steps are repeated. The move from A minor to A \flat major in bars 7-9 (which is interrupted by bar 8) is repeated in bars 10-12 with the two chords adjacent. The fall from F \sharp minor (bar 18) to F major (bar 21), also interrupted, is repeated in bars 22-3. Again the chords are adjacent the second time.

This descending chromatic chain does not readily accommodate traditional tonal functionality. A full statement of this chain would require 24 steps. This makes the statement of a complete cycle unlikely to occur in most compositional contexts, and so the potential teleology offered by a complete statement is not available. Of course some other organisational principle could step in to make the cessation of the cycle a point of arrival, but this does not happen in ‘The Cloud-Capp’d Towers’. At the final F minor chord, it seems more like the chain has been broken off, rather than some complete process closed. (At this point, tonally based relations are also being violated, as discussed earlier.)

Besides the chromatic movement and smooth voice leading already discussed, pivot notes play a prominent role in the connection of triads, suggesting some form of harmonic coherence. The first soprano part contains a departure and return from A

during the opening phrase. A is heard again at the start of bar 5, but this time the voice leading descends in whole-tone steps. A returns at bar 7, this time there is a lower auxiliary note, A \flat , before A is heard again at bar 10. So far the motions away from A have alternated between return (bar 1-4), departure (bars 5-6), and return (bars 7-10). This is followed by another departure pattern - like the one at bars 5-6, this traverses the downward motion from A to F \sharp , but this time the steps are a semitone apart, rather than a tone.

The end of the piece plays with motion away from A, but this time it is a simple falling semitone from A to A \flat , changing the mode of the triad sounding from F major to F minor. This final gesture is an allusion to motion about the pitch A which has often occurred in the piece. On previous occasions A has returned to start a new voice leading pattern, but this time it does not return. Until this point, we might have considered the pitch A as an effective reference point, a recurring feature, about which one might argue for the piece's coherence. But even this coherence point, more flexible than a referential triad, or key centre, and able to connect F \sharp minor to F major, fails to appear in the song's final chord. The final A \flat contextualises A as a reference point within the piece. It is an element about which much of the piece coheres but it does not unify the piece. Analysis has shown a number of principles about which parts of the piece cohere. These principles include repeated tonal failure, hexatonic relationships, whole tone relationships, a chromatic transformation chain and a referential pitch. But there is no single idea about which the piece unifies, in harmonic and tonal terms.

Semitone relationships also feature significantly throughout the Sixth Symphony. Some of these were discussed in the previous chapter. Besides the tonal conflicts that occur within it, the work carries tonal expectations before it has begun

as this symphony was originally given the title *Symphony in E Minor*, the number being added later. Even then its full title was *Symphony no. 6 in E Minor* so the reference to the key centre remained. Given this title the listener expects the work to reach some kind of tonal resolution in its final movement.

One factor perhaps tempering this expectation is that the last movement is titled 'Epilogue'. The whole movement could conceivably come after the symphony's point of dramatic climax and/or tonal resolution. There are no breaks between the movements in this symphony which encourages the listener to consider it as a whole. Motivic links also connect contrasting thematic material in different movements. Tonal oppositions in the first movement were discussed in the last chapter. The final resolution in the first movement hardly establishes an atmosphere of reconciliation, the bass E surging and retreating dynamically, then interrupted by the tritone B \flat , which starts the next movement. The tritone relation will feature prominently during the second movement. The third movement is tonally unstable as well. In this movement, whilst melodies are tonally shaped, the music avoids centring on any particular tonality for the vast majority of the time.

This leads directly into the 'Epilogue' fourth movement. During the opening bars of the movement there is exploration of an opposition between F minor and E minor, the same chords that confronted one another in the opening and closing bars of the first movement. There is no break between the third and fourth movements, so the finale starts with the tonal centre of the previous movement, F minor, as a prominent element (Ex. 4.18). Even the question of where the fourth movement actually starts is debatable. The printed score commences with the violin entry, but a held E in the timpani and bass clarinet the bar before also sounds as an interruption to the previous material and its meter, as a new beginning. These two possible starting points for the

movement reveal the two potential tonal centres, E in the bass, F in the violins.

The bass note, E, starts as an interruption, and so it is initially heard in the context of F minor, at the end of the third movement. The effect of its being sustained for some seconds while no other activity occurs in itself suggests that this could be a tonal centre. But it is suggested rather than established. The violin entry could be heard as a return to the F centre from the end of the previous movement, the sustained E being a distracting interruption, or it could be heard as a challenge to E, one for the movement to resolve. While F is strongly suggested at the movement's opening it is not established as the tonal centre. So both E and F are suggested, but neither is in control or directs the phrase. Quasi-Schenkerian analysis can illustrate the suggestion of both tonal centres, but commentary is required to convey the sense of negotiation between them.

Whether E or F is seen as more prominent, the scale includes some modal alterations. It was discussed earlier that Vaughan Williams combines modal inflections to invent 'new' modal scales. The first violin entry could be heard as an extreme example of this, a scale on F having a minor third, raised fourth, and a flattened seventh (see Ex. 4.19(a)). This reading becomes less sustainable when the second violins enter, here the tonal centre is more clearly E. If greater importance is attached to the bass pedal note, the opening violin entry could be heard in E, as shown in Ex. 4.19(b). The melodic A \flat s may initially discourage this as a flattened fourth does not occur in any of the modal scales that Vaughan Williams draws upon. However the A \flat s and E \flat s can be heard harmonically as minor thirds in F minor and C minor chords respectively. Treating these notes as representing the triads on the flattened second and flattened sixth degrees actually strengthens a reading of the passage as being in E, as the flattened second falls to the tonic and the flattened sixth

falls to the dominant.

This second approach can be continued into the next phrase, as the C-E \flat -C and F-A \flat -F figures are repeated, each time followed by the dominant or tonic of E respectively. The opening section could then be read in E as it turns out that initial doubts about the stability of E were unfounded. But the reason for choosing this reading, that it can be applied consistently for longer, should be questioned. The viability of the first two readings to the opening bars remains. I would argue that it is possible to hear the opening bars in both ways. Graphing the passage in two different ways foregrounds the issue of choosing one reading over the other. This is a retrospective choice, the visual score and analytical reflection allowing a perspective that complements the listening experience. But is there merit in not choosing? I am proposing to offer both analytical readings side-by-side, arguing that the passage does not submit to the determinacy which often characterises analysis. If the listener hears the passage in F at some point this reading ceases to be sustainable, as the second violin entry is clearly in E. In this case, during the opening five bars F gives way to E. But this process of ‘giving way’ is not one that is affected by a particular harmonic or melodic progression. Instead it becomes clear that hearing in F minor has started out a possibility and become unsustainable.

Up to this point, the quasi-Schenkerian analysis of the opening phrase has mainly involved analysing the harmonic implications of a melody. When the texture becomes contrapuntal, many brief but unresolved harmonic dissonances are created, especially semitones and tritones (Ex. 4.18). Some harmonic clarity is achieved by bar 1.6 with triads in the upper strings falling through descending parallel triads, followed by a repeated juxtaposition of E \flat major and E minor chords in bars 1.8-10. Underneath this, the bass recalls the minor third motif which has been a feature of the

opening section. While this motif fell to the tonic and dominant scale degrees in the opening bars of the movement, it now falls to the minor third, although emphasising the major third in doing so. This alternation of the minor and major third degree was also explored at the opening and close of the first movement.

The closing bars of the section contrast with the harmonic character of the intervening passage of contrapuntal activity. Here E and B are often prominent as they were in the opening violin entry. Other pitches are given prominence in the following bars, A in the first violins bars 9⁴-1.2⁴, there is a briefer emphasis on G in the second violins bars 1.3²-1.4², and the pitches of a D minor triad emerge during bars 1.4-1.5¹. Against these prominent pitches and emerging triad can be heard the melodic implications of the other contrapuntal lines. There are many unresolved dissonances as the parts rub against each other.

During bars 4-1.5 the individual contrapuntal lines share motivic material and cohere around pitch centres. Despite these common characteristics each voice emphasises its independence from the others by harmonically clashing with, or to put it another way, bumping into, other voices. The voices do not seem to react to the actions of the others, or influence each other. Each is equally weighted dynamically, and none seems more important than any other. There is a certain coherence from the sharing of material, but harmonically the voices seem to act independently without regard for each other. In other words, there is a strong sense of harmonic 'unrelatedness' about these voices, while they are still related by shared motivic material.

When complete E minor triads are eventually heard (bars 1.8-1.10), they still do not firmly establish E minor as they alternate ambivalently with E \flat major triads. While F minor (a semitone above E) initially posed a threat to E minor at the start of

the movement, now E \flat major (a semitone below E) is offered as a previously unheard alternative to E minor at the end of the section.

The contrapuntal opening section fails to establish E minor but retained the insistence on the pitches E and B. In later passages the sense of tonal direction seems at times to be lost completely. The passage in Ex. 4.20 shows one voice developing the motivic material of the movement's main theme, while the other moves about by parallel triads with no clear sense of tonal direction. Shortly after the quoted passage, the main theme returns in the bass, bringing relative clarity compared to the previous bars, even though it contains its own opposition of F and E.

The movement as a whole never convincingly asserts E minor as a controlling tonic. Ex. 4.21 shows the end of a phrase where the movement's main melody is heard in the bass. As F falls to E in the bass, bars 3.8-4.1, in the melody E rises to F. This is repeated as a motivic figure later in the movement. The two chords have the character of a cadence figure. But this 'cadence', repeated twice more, never arrives on a tonic triad.

The most significant place where E minor is not convincingly established as a controlling tonic is the end of the movement. In Vaughan Williams's orchestral music, solo instruments are often given a modally influenced self-contained melody, lightly accompanied by other instruments or unaccompanied. These melodies can be strikingly independent from surrounding material. On certain occasions, a solo melody is recalled shortly before the end of a movement, leading to a quiet 'epilogue-style' closure. The end of the Sixth Symphony follows this pattern (Ex. 4.22). In comparison to other pieces where a solo melody is striking for its modally influenced, self-contained nature, sounding like a quoted folk-song, this solo, like so much of this movement fails to cohere tonally. It eventually ends on the tonic note, but the melody

as a whole does not reveal this tonal organisation. Where a modally coherent oboe solo ends the slow movement of the *London Symphony* with localised tonal stability, the tonally incoherent oboe solo towards the end of the Sixth Symphony finale leads out to tonal ambivalence with the return of the E \flat major/E minor alternation last heard at the end of the first section.

This symphony in E minor concedes an ending on an E minor chord at the end of a ten minute movement which has persistently invoked E minor yet resisted establishing it as a tonal centre, either by suggesting other keys, like F minor at the beginning, by deliberately frustrating E minor, as in the ‘cadence’ motif, by harmonic wandering uncertainly, or by using tonal or modal fragments but not establishing a tonal centre. In this movement, the tonal centre is not even sustained by the frequent presence of the tonic chord.

In both ‘Cloud-Capp’d Towers’ and the final movement of the Sixth Symphony, semitone relationships feature prominently. One difference is that where the symphonic movement ends on its tonic chord, however inconclusively, the choral song denies tonal closure. Asked about the meaning of the final movement of the Sixth Symphony, Vaughan Williams quoted the text set at the end of ‘Cloud-Capp’d Towers’: ‘We are such stuff as dreams are made on,/ And our little life is rounded with a sleep.’⁷ The ambivalence of the text is reflected by destabilising tonal centrality in different ways at the end of both pieces.

Conclusion

In previous chapters, the majority of pitch materials could be understood with reference to modalised tonality. Deviations from this were understood in terms of local harmonic progressions. The examples in this chapter show that the composer also retained common-practice tonality, and challenged the boundaries of modalised

tonality in some works. The limits of tonality are challenged by the combination of modal alternatives, such as the prominence of equal division in the Lydian minor scale. Modalised tonality can be undermined to create instability, as illustrated by passages from *A Pastoral Symphony* and *Job*. Juxtaposition broadens the range of possibilities within a tonal strategy. For example diatonic tonality can symbolise spiritual balance: this is achieved in the Fifth Symphony, but only glimpsed in *Sancta Civitas*. Semitonal relationships, easily accommodated when representing two versions of the same scale degree in modalised tonality, resist tonal organisation in compositions such as ‘Cloud-Capp’d Towers’ and the Sixth Symphony. One analytical strategy would be to turn to other musical elements in search of unity. But through exploring the role of tonality in this music, a variety of strategies can be proposed which include tonal resistance.

ENDNOTES

¹ Annie K. Yih, ‘Analysing Debussy: Tonality, Motivic Sets and the Referential Pitch-Class Specific Collection.’, *Music Analysis* 19/2 (2000), p. 213.

² Arnold Schoenberg, *Structural Functions of Harmony* (London: Faber, 1983), p. 19.

³ Alain Frogley and Hugh Ottaway, ‘Vaughan Williams’, in Stanley Sadie and John Tyrrell, eds, *New Grove Dictionary of Music and Musicians*, 2nd edn (London: Macmillan, 2001), vol. 26, p. 356.

⁴ See F \sharp and F \natural in Ex. 4.7, bars 89-93 and ‘D \sharp ’ (sounding more like E \flat) in the same passage.

⁵ Arnold Whittall, ‘“Symphony in D Major” Models and Mutations’, in Alain Frogley, ed., *Vaughan Williams Studies* (Cambridge: CUP, 1996), p. 207.

⁶ David Lewin, ‘Amfortas’s Prayer to Titirel and the Role of D in *Parsifal*: The Tonal Space of the Drama and the Enharmonic C \flat /B’, *Nineteenth-Century Music* 7/3 (1984), pp. 336-49.

⁷ Michael Kennedy, *The Works of Ralph Vaughan Williams*, 2nd edn (Oxford: Oxford University Press, 1980), p. 302.



Chapter 5

Structure in the Symphonies

Analysing elements of harmony and tonality in a theoretically engaged manner has led to a wide range of propositions. Sometimes the analysis revealed logical and coherent patterns in particular musical examples. At other times the music seems to work against such patterns. Analysis can, as Maus hoped, ‘display’ disunity as well as unity, ambivalence as well as certainty, resistance as well as compliance.¹ Turning to the role of structure in Vaughan Williams’s music, and choosing to focus on the composer’s symphonies, it will be productive to retain these methodological values, engaging with theory, rather than simply furnishing it with analytical examples. I will start by briefly highlighting some features of the composer’s symphonic discourse that I find striking as a listener. This prompts the introduction of a suitable theoretical perspective, sonata deformation theory, before the bulk of the chapter engages at length with a number of works in turn. Some points of comparison are drawn between structures and expressive elements.

Features of Vaughan Williams’s Symphonic Discourse

I hear this music in structural dialogue with traditional sonata form elements. Sometimes there is substantial deviation from sonata form models, but at other times elements of exposition, development and recapitulation are plainly discernible. For example, there is a clearly defined development section in the first movement of the Fourth Symphony,

however the recapitulation fails to resolve all the tensions created. As a listener, I go on to question whether these deviations are substantial enough to prompt the proposal of different structural procedures.

In particular, the music seems to step out of the discourse it establishes for itself at times. I think of this when I hear an episode of apparently unrelated material during a movement, or an epilogue section. (*A London Symphony* ends with an epilogue section, for example.) Such devices, not unique to Vaughan Williams's music, can place a distancing frame around conventional structural elements, opening space and dialogue between the main discourse of the movement and 'other' material. On the one hand, these procedures invite reflection upon the movement as a whole and the interrelationships of its materials. On the other hand, they demonstrate that a discourse can be interrupted, and point attention outside the borders that had apparently emerged at an earlier stage.

Some of the most striking and surprising passages occur when the musical argument is not resolved, especially when a climax is reached but then the movement's tensions dissolve or even remain, rather than dialectically resolve. (Tonal tensions are left unresolved at the end of the first movement of the Fifth Symphony, for example.) At these points my expectations as a listener are challenged. The music draws on classical formal patterns and romantically expressive gestures. But these appear to fail at times, or else, are held in ambivalent suspension.

Given these general observations, I am seeking a theoretical perspective which has something to do with sonata form, allows music to step out of the discourse it has itself established, and can accommodate the possibility of ending in a state of failure or ambivalence. Sonata deformation theory offers a productive theoretical context for

analytical exploration of these characteristics. It has not been devised with Vaughan Williams's music in mind, but I intend to show that it does open some productive structural dialogues, and it is responsive to adaptation and extension.

Sonata Form, Sonata Deformation and the 'Early Moderns'

To discuss Vaughan Williams's symphonies in terms of sonata form is both problematic and unavoidable. Elements of exposition, development and recapitulation feature in all of the symphonies, yet there are such substantial deviations from any one definition of sonata form that there is no obvious benchmark against which to understand the individual structures. The problem is how to establish a definition of sonata form that is being deformed in nineteenth or twentieth-century works, when so many definitions of sonata form have been in circulation.

Any one definition of sonata form can be easily challenged. The relevance of a 'textbook' account, such as that given by A. B. Marx, to symphonic works can be disputed: Why should a definition, presented in a pedagogic context, have any bearing on the practice of professional composers? This question will return following the introduction of Sonata Deformation Theory. A contrasting definition is the twentieth-century concept of 'the sonata principle'.² Analysts and critics have proposed and employed the sonata principle as an essential definition, minimising the necessary and sufficient criteria to encompass as many canonised works as possible. Inevitably there are exceptions to this rule, even in classical works.³ The sonata principle satisfied a desire to consider structure in primarily tonal terms, and enabled anomalies to the basic design to be marginalised as thematic concerns. Harmonic resolution is the overall goal of the

movement, which is elaborated by a thematic argument.

Most definitions can be characterised as primarily thematic or tonal. A. B. Marx's 'textbook' account emphasised the thematic argument, for example. The analyst can favour one side or the other of this binary opposition. Tonal definitions are often associated with eighteenth-century ideas of structure, and thematic definitions with nineteenth-century textbooks. Mark Evan Bonds has argued that this division has been overstated. There is a change over time, but it is a gradual one.⁴ As an alternative, Bonds generalises an eighteenth-century idea of form as one based on the oration as a metaphor for the musical work:

The successive ordering of a work's individual sections was seen as a function of the manner in which the composer could effectively present a series of ideas to his audience and thereby elicit an intended emotional response.⁵

Through historically grounding his idea of form on the basis of eighteenth-century sources, Bonds attempts to escape the tonal/thematic duality which plays a role in most sonata form definitions. Joseph Straus emphasises the tonal/thematic opposition:

Thematic contrast, which functioned originally as reinforcement for the underlying harmonic polarity, thus survived the demise of that polarity to become, in the nineteenth century, the principal determinant of sonata form. ... Of course, thematic disposition is not as profound an element of musical structure as harmonic polarity. Composers who have understood the sonata in a nineteenth-century sense have tended to write uninteresting sonatas. In such works the sonata form floats upon the musical surface, a mere arrangement of themes lacking in real connection to the harmonic structure beneath. ... There are, however, twentieth-century sonatas that grapple in a profound way with the structural issues raised by the eighteenth-century view of the form.⁶

Straus clearly prefers the proposed complexity and depth of harmony over melody as structural determinant. While eighteenth century philosophers argued which musical element was the most important, harmony or melody, Straus debates the merits of a harmonic conception of form over a melodic conception of form in the twentieth century.

In both cases the chances of any meaningful resolution in favour of one or the other seem remote.

It is too early to suggest what a typical twenty-first century conception of sonata form might be. Charles D. Morrison considers the problems of understanding atonal music in terms of the form. He proposes six ‘functional qualities’ (‘introductory, expository, transitional, developmental, anticipatory and conclusive’) and analyses Bartók’s first violin sonata in terms of these.⁷ Morrison attempts to establish ‘what counts as a genuinely expository statement’, and considers whether there is ‘a genuine recapitulation’, opting finally for an understanding of the recapitulation as a ‘re-exposition’.⁸ In overall terms the author hears the piece ‘as a fully dynamic sonata design’ rather than as a theme and variations, as previous analysts have suggested.⁹

This analysis is perhaps indicative of the fact that despite its problematised status, more music is being understood in relation to sonata form, rather than less. Straus applies sonata form to works by Stravinsky and Schoenberg. Morrison analysed a Bartók sonata movement as a sonata form. Sonata deformation theory enables analysis of a tone poem such as Strauss’s *Don Juan* in relation to sonata form, where some previous writers have opted for other designs such as a rondo, for example.¹⁰ Scott Burnham has recently emphasised the values that are invested in this formal design:

In dramatising the return from dominant to tonic (so often conceptualised as the ‘chord of nature’), sonata form performs not just a return but a return to nature, in the same way that the dominant-tonic cadence does. This is a broadly resonant scenario, and hard to resist – sonata form brings us home, and who among us does not long for some sense of home?¹¹

Given this aesthetic and ideological investment, the idea of *deforming* a sonata design is a heavily loaded concept. But it is one that has been historically located amongst a

generation of ‘early modern’ composers, and for this reason, ‘deformation’ becomes a strikingly pertinent term. Carl Dahlhaus has argued for a self-conscious ‘musical modernism’ which flourished ‘between 1889 and 1914 as a self-contained period in music history.’¹² James Hepokoski agrees with this view, identifying a group of ‘early modernists’ that includes ‘Elgar (1857), Puccini (1858), Mahler (1860), Wolf (1860), Debussy (1862), Strauss (1864), Sibelius (1865), Glazunov (1865), Nielsen (1865), Busoni (1866), and several others.’¹³ Many other accounts place most, if not all, of these composers as late romantics, with the arrival of musical modernism more closely associated with the emergence of atonality. This historiographical choice has relevance to the study of musical form in late nineteenth and early twentieth century symphonic music. A primary concern for many of the ‘early moderns’, was to write a symphony that would be accepted as such. Across Europe, the composer was competing in a marketplace, where he had to be both original and invoke generic norms of the symphony. Hepokoski’s generation of early moderns all developed individual musical styles:

Nevertheless, these styles were all individualised solutions to the problem of seeking to fashion a marketable voice within the ‘idealistic’ tradition in an urban age in which such earlier aesthetic convictions were rapidly decaying away.¹⁴

As movements became longer, in all these different musical styles, ‘spotting’ the sonata form elements became an ever-increasing challenge for those aware of the game being played. The presence of sonata form elements was a defining feature of the symphonic genre, yet to use them in a conventional way would have been regarded as anachronistic. Composers, facing the daunting pressure to produce ‘original’ masterworks, developed innovative structural procedures, obscuring, delaying and manipulating the ‘traditional’

sonata form. Through this process the ‘home-coming’ that Burnham highlights as a powerful idea, is challenged. Hepokoski’s concept of ‘sonata deformation’ contrasts with this:

To perceive many modern works appropriately we should not try to take their measure with the obsolete ‘sonata’ gauge, as is often attempted, but rather to understand that they invoke familiar, ‘post-sonata’ generic subtypes that have undergone, in various combinations, the effects of differing deformational procedures.¹⁵

the term ‘deformation’ ... is most appropriate when one encounters a strikingly nonnormative individual structure, one that contravenes some of the most central defining traditions, or default gestures, of a genre while explicitly retaining others.¹⁶

Hepokoski sets out a number of ‘deformation-procedure families’, each with influential prototypes from the earlier nineteenth century. I have summarised these in Table 5.1. My formalised presentation risks making the deformation concept look rather rigid and taxonomic. In fact it is best conceived as flexible and reactive to the particularities of individual examples. Accordingly, single movements may engage with more than one deformational family. Musical works are in dialogue with these generic codes, moulding and adapting them according to requirements, rather than adhering to them as conventions. A range of structural solutions and expressive effects is generated by their manipulation and combination. Adorno identifies a dialectic between any formal model and the work in question:

even that which is going on underneath is not simply a second and quite different thing, but is in fact mediated by the formal schemata, and is partly, at any given moment, *postulated* by the formal schemata, while on the other hand it consists of deviations which in their turn can only be at all understood through their relationship to the schemata.¹⁷

With sonata deformations, there are two dialogues in operation: one between the piece and the deformational type, and the other between the deformation type and the

‘textbook’ sonata form model. Although Hepokoski does not use this phrase, I would characterise this process as a ‘double dialogue’.

Sonata deformation, in its flexibility, places more emphasis on the thematic argument than resolving a tonal opposition. Many critics and analysts have seen their role as teasing out and emphasising the sonata form elements in symphonies and tone poems, to show that the music ‘has’ form, explicitly or implicitly addressing the charge that the piece in question lacks this rational musical element. In some cases, debates may erupt as to which form a piece is in, as with Strauss’s *Don Juan*. A sonata deformational approach avoids such ultimately futile disputes in favour of advocating dialogue with more than one structural type. Such a dialogue can attend to the subtleties and differences that are encountered during the course of individual movements, rather than applying inflexible, static formal models, as if the musical work is a visible object. At this point the relevance of a ‘textbook’ definition, such as that presented by A. B. Marx, can be reconsidered. There is no suggestion that an ‘early modern’ composer would on one occasion, opt for this formal strategy rather than one of the deformations. Instead, deformation was the normative procedure for these composers. The account in the ‘textbook’ is a historical source which indicates an idea of form that was in currency during the nineteenth century. It represents one concept of a ‘traditional’ sonata form, that even at the time of its earliest dissemination was already an anachronism. Whether individual composers had this particular account of a traditional sonata form in mind, or another one, is largely unknowable. Whether composers even thought of sonata form at all is another possibility. Regardless of this, sonata deformation theory can come into play when this proposition is accepted: that orchestral works were and are received by listeners and critics against a

background of traditional sonata form. While there were any number of accounts of traditional sonata form in circulation, the consistent element is that ‘early modern’ music was in dialogue with these accounts, a process of deformation was enacted.¹⁸ An individual’s understanding of the deformational process will obviously vary, depending on which traditional sonata form account is in mind. The process of deformation is the element which must be present in order for sonata deformation to be useful.

A number of Vaughan Williams’s symphonic movements, like those of the ‘early modern’ composers listed above, can be understood in relation to the categories of sonata deformation summarised in Table 5.2. These are not the only possible types of sonata deformation, and I will propose two more categories in response to the analytical investigations that follow later in this chapter. Of the deformation types listed, rotational form is perhaps the one that allows the greatest deviation from the sonata form ‘model’ or ‘ideal’. In fact a movement can be in rotational form, without any reference to sonata form at all. On this basis it seems reasonable to assert that rotational form can be both a sonata deformation, and an independent form. For example, Hepokoski analyses the first movement of Sibelius’s Fifth Symphony as rotational, with each rotation mapping onto an individual sonata form section. By contrast, the slow movement of the fifth and the finale of the sixth are understood as examples of rotational form without any relation to sonata form.¹⁹ Warren Darcy gives this definition:

Rotational form is best considered an over-riding structural principle, an *Urprinzip* that in the instrumental genres may control the progress of movements organized according to more familiar Formenlehre categories such as sonata form or rondo.²⁰

Darcy layers rotational forms over sonata form movements by composers including Haydn and Bruckner, illustrating the flexibility of this concept.²¹ Individual rotations may

fit onto the exposition, development and recapitulation sections. Alternatively, one rotation might incorporate both the development and the recapitulation. Whether rotational form is understood in dialogue with another form, or independently, the first rotation has an expositional function, setting out the main thematic material. This is followed by any number of rotations which restate and/or develop that material further. In any case there will be some space between the model of rotational form, and how it is worked out in practice. Another expressive or structural element may be laid over the top of the rotational principle, such as growth towards a climax, then subsequent decay across the movement. Hepokoski and Warren Darcy refer to this as ‘teleological genesis’.

The coda is treated by these authors as lying outside the sonata form process as the recapitulation is charged with the task of restating (or failing to restate) the thematic materials in the tonic. This function cannot be deferred to the coda. Some writers describe such processes as ‘reversed recapitulation’.²² Darcy and Hepokoski regard this to be a misnomer, because then the coda is performing the recapitulation function. They refer to recapitulations that fail to restate the main themes in the tonic key as nonresolving recapitulations. Examples include the finale of Bruckner’s Seventh Symphony and Beethoven’s *Egmont* overture.²³ Darcy identifies the important function that a Bruckner coda must fulfil:

Bruckner always postpones the redemptive moment until the coda of the Finale, after the sonata-form portion of that movement has once again ‘failed’ to deliver it. According to sonata deformation theory, this coda must be understood as drawing its strength from outside the sonata form and, in a sense, must transcend that form in order to succeed.²⁴

The positioning of material outside the sonata form is an idea that will return in the analysis of Vaughan Williams’s symphonies.

As well as proposing sonata deformation sub-types, structural strategies can be observed in a less codified way. Hepokoski points to many ‘original’ structural devices in nineteenth century symphonies: the exposition may feature a gendered two-block structure (often without a bridge to create a juxtaposition), or interpolation of episodes and digressions; the formal development section may be replaced by recapitulation with elements of development worked in; the recapitulation may contain an unexpected return of development or introduction material, ‘loss’ of the second theme, no tonic restatement of the main theme or the tonal argument may go unresolved. In overall terms many unusual tonal schemes are employed, the coda may play an increased role in closure depending on the preceding material, or the idea of teleological genesis across the whole movement might be of central concern.²⁵ These devices, individually, or in combination, could be used by the composer to demonstrate his ‘originality’. Ironically, this drive for originality resulted in repetition of structural strategies.²⁶ This opens the possibility of interpreting individual works not with naive surprise at how far they deviate from Marx’s ‘textbook’ definition or the sonata principle, but reading structural strategies as examples of a more localised type. With this in mind, I refer to ‘sonata discourse’ or the ‘sonata argument’ because musical form is engaged performatively, rather than formulaically applied. Elements of the movement may conceivably lie outside this sonata argument. When discussing and comparing structural strategies the point is not to claim chains of influence from work to work, though this option remains open for historical investigations. Instead structures can be read intertextually as responses to and participants in the institution of the nineteenth- and twentieth-century symphony.

First Movement Structural Strategies in the Fourth and Sixth Symphonies

The first movement of *Symphony No. 4 in F Minor* includes some strikingly dissonant music. The first subject section is hard to understand in terms of tonal centres. For example, the opening motif juxtaposes, D \flat and C, and although a pattern of resolution establishes that C is more stable than D \flat , it is not possible to suggest a tonal centre when only two pitches are in use (Ex. 5.1, theme 1(a)). The following bars develop the semitone idea and state the distorted 'B-A-C-H' figure. This is clearly centred about one pitch, E, but again that is insufficient to clarify the tonality. A few bars later, tonal stability is avoided through the employment of quartal harmony (Ex. 5.1, theme 1(b)). If the tonality of such passages is unclear, the structure of the movement is comparatively straightforward (Table 5.3, Ex. 5.1). The exposition divides into three sections, each setting out a main theme and collection of tonal oppositions. (The second and third themes were discussed in Chapter Four.) The development draws mainly on the first subject material. The recapitulation retains the ordering of the three thematic sections, but the third theme is radically reworked. This ends the movement so that coda activity invades the recapitulation space. At the beginning of this final section of the movement a bass pedal C opposes triadic material in D \flat , thus revisiting the harmonic opposition from the opening bars of the movement. Although C defeated D \flat at the opening, the movement ends in D \flat major.

The tripartite sonata form design is salient in this movement. The first subject marks the beginning of each section as a structural juncture. The exposition and development sections perform their normal roles. Although tonal stability is generally avoided, the tonal argument still supports the structure by featuring different oppositions

in each section. The final part of the recapitulation, far from restating the third theme, transforms it, radically altering the course of the movement. Where the sonata form function is frustrated, a rotational structure can accommodate such a transformation. This movement is only partially rotational, as the development section does not form part of this structure. The first rotation maps onto the exposition, and the second rotation lasts for the length of the problematised recapitulation and coda. It could be said that the movement has a nonresolving recapitulation. However it is difficult to see how any recapitulation could be resolving in this dissonant idiom as each section contains substantial internal tonal oppositions. In such cases, one might not expect that the recapitulation would fully complete a resolution of the tonal tensions presented in the exposition. The tonal tensions could remain and closure could be achieved. However, a significant factor in this recapitulation is that it ends in a different place, in D \flat major, with transformed recapitulatory material rather than a coda section. The movement reaches a point of rest, but this is not so much closure, as a reversal of the opposition with which the movement started in favour of D \flat rather than C.

The deformed 'B-A-C-H' motif returns in each of the four movements of this symphony. It provides the subject for the 'Epilogo Fugato' section which closes the entire work. This section combines the rondo theme of the final movement with the first movement motif, culminating in a return of first movement material to close the work. As shown in Ex. 5.2, these bars are far from resolving the tonal oppositions of the first movement, but this is not a realistic expectation given that the first movement sonata argument so consistently played with semitonal opposition. In fact the symphony's coda restates the semitonal opposition with intensity. The penultimate harmony is a hexachord

comprising the pitches of F# minor and F minor. This is followed by an open chord on F. The symphony ends on a consonant chord, the sense of resolution is minimised by the absence of a third, but these final few bars still act as a violent closure to the work. They represent a return of the sonata argument from the first movement, finally achieving a closure deferred from that movement.

By contrast, the sonata argument from the first movement of the Sixth Symphony does not spill out into later movements (although the tonal opposition of E and F and many motivic connections can be traced throughout this work). The formal design given in Table 5.4 shows a tripartite sonata form (for main themes see Ex. 5.3). However, there is some ambiguity as to where the sections start. The first subject section is the most clearly defined, starting with the arresting opening figure, labelled 1(a). This returns twice (first on F, then on B, indicating the unstable tonality of this section) leading to a string melody opposed by aggressive accompaniment, theme 1(b). The accompaniment figure is derived from the opening motif and its initial continuation. The opposition of melody and accompaniment is reminiscent of the second theme from the first movement of the Fourth Symphony. But where the melodic element ultimately ‘won’ in the Fourth Symphony, reaching a cadential conclusion, the accompaniment material frames the melody in theme 1(b) from the Sixth Symphony, closing in E minor during bars 3.1-9. The end of the section is clearly juxtaposed with new material starting at bar 4.1, which suggests the two-block exposition design. This second subject melody dominates the texture, although the accompaniment is still prominent as well through syncopations. The second half of the two-block design features theme 2(b) from bar 8.1. Elements of the accompaniment style remain from theme 2(a). Bar 4.1 is the most clearly marked break in

the exposition, so that the bars up to this point form a first subject, and the following bars incorporate two themes into the second subject area.

So far the structure is reasonably straightforward. It is at bar 9.1 that the first ambiguity arises. Theme 2(a) returns, but with strong elements of continuity from the preceding bars, especially in the retention of the syncopated accompaniment style. This accompaniment runs through the whole of the development until the return of first subject material at bar 12.1. If sonata form is dispensed with, bars 4.1-11.13 could be regarded as a discrete section. But if sonata form is retained, while the beginning of the development section is not clearly demarcated, the return of material during bars 12.1-8 and subsequent restatement of exposition material are classic recapitulatory gestures. The point of recapitulation is clearly marked as the tensions of the first subject section return, even though the opening motif is conspicuously absent.

The transformation of theme 2(b) into an example of the pastoral style occurs in a passage that stands apart from the rest of the symphony. (The harmony of this passage was discussed in Chapter 3.) The contrasting fortunes of the two blocks of thematic material in the recapitulation is stark: the first subject is just as unstable, but without the distinctive opening motif; the second subject materials have been transformed into a tonally stable (though modally flexible) expression of pastoralism, sustaining the tonic pitch with a much greater clarity than the first subject materials. This second subject victory in the recapitulation is quickly shown to be a temporary state of affairs, as the opening motif, repressed during the recapitulation, returns to form the coda. Now E minor defeats the opposition of F minor, but the closure hardly achieves tonal stability, as discussed in Chapter 3.

The short recapitulation resolves the second subject in the tonic. The second subject becomes more stable than the first subject. The recapitulation is also incomplete, deferring the opening motif to the coda section. In a way this motif functions as part of an introduction-coda frame around the main sonata argument. But at the same time it is integral to the tensions of the first subject section, and so involved in the main part of the movement.

A comparison of the first movements of the fourth and sixth symphonies indicates the flexibility of sonata form, and something of the myriad possibilities of twentieth-century sonata discourse. While both movements feature three main themes, in the Fourth Symphony they each form a distinct section while in the Sixth Symphony the latter two are halves of one section. In the Fourth Symphony, the last theme of the exposition is transformed during the recapitulatory rotation to double up as the coda, deferring closure of the sonata argument to the finale. In the Sixth Symphony, the last theme of the exposition is also transformed during the recapitulation. But here it represents the victory of second subject material in tonal stability, although this is framed by the coda events. The Sixth Symphony's first movement coda effects a violent closure of the sonata discourse; the parallel passage in the fourth is a temporary resting place.

Rotational Form in *A Pastoral Symphony*

Rotational form is a structural element in the first movement of the Fourth Symphony. However, the basic tripartite sonata form provided an overall frame for the movement, even though coda activity 'invaded' the recapitulation space. In *A Pastoral Symphony* the rotational principle operates during the first, second and fourth movements. The third

movement, a Scherzo, is therefore the only movement which does not follow a rotational organisation.

The formal plan for the first movement, Table 5.5, shows the movement can be understood in relation to two structural models – sonata form and rotational form. In the table, modulatory passages are represented by an arrow. There is extensive use of modal alterations in this music, which I do not attempt to describe in detail. The thematic elements, presented in Ex. 5.5 with two alternative labels, can be mapped onto either the sonata form or the rotational form models. If the movement is conceived primarily in rotational form, then each quoted phrase can be described as a musical ‘element’, numbered 1-8. The term ‘element’ is used as a broad term that can include such factors as distinctive textures, themes, motifs, and cadential figures. The initial rotation proceeds through eight elements. The subsequent rotations then play with this order. If the movement is conceived primarily in sonata form, then the second of each pair of labels can be used.

Do both the sonata form and the rotational form offer equally viable ways of understanding this movement? The designation of an exposition section is relatively unproblematic: a first and second subject can be identified, and they are presented in different key areas, G Mixolydian for the first theme, and A Aeolian for the second theme. There are other significant tonal relationships in the exposition: during the first theme section, the stability of G is challenged by a chord stream in E \flat as discussed in Chapter 4; frequent modal alteration of B \sharp to B \flat also means that G major is not unequivocally established, although G is clearly the tonal centre at the start of the movement. The ‘bridge theme’ does not sound obviously modulatory, however it does

occur in a tonally unstable passage following a cadence in G. During these bars a number of tonal centres are suggested but none is firmly established. This contrasts with the following element, the second subject, which is clearly in A Aeolian. This continues until the cadential figure reintroduces parallel chords using notes outside the resource of A Aeolian and arrives on A major triads. The appearance of F# major in the codetta, and the subsequent return to A means that the two most stable pitch centres in the exposition, G and A, are both associated with a third related pitch centre.

All of the main themes in this movement employ modal melodic resources, and there are many motivic relations. Just as in a classical symphony, where the main themes can be connected through their use of similar arpeggio and step-wise shapes that comprise a significant element of common-practice tonality, so these folk-based modal tunes share the melodic shapes that frequently occur in modalised tonality. In both cases the attribution of specific relationships is hazardous, so that the question of what constitutes a significant relation between themes in a classical or romantic symphony can be asked of the modally influenced musical language of Vaughan Williams. In particular the flattened seventh is an extremely common feature, the harmonic and tonal implications of which were explored at length in Chapter Two. Another feature shared by the themes is the more general technique of only using certain pitches from within a scale, or gradually introducing new pitches as the phrase continues. For example, the two parts of theme 1 use $\hat{2}$ and $\hat{5}$ the most, with $\hat{6}$ in the first sub-phrase, adding $\hat{2}$ in the next, $\hat{7}$ in the third, and $\hat{4}$ in the fourth, as illustrated in Ex. 5.5.

Whether bars 1-F.2 of the movement are called rotation 1 or the exposition, this section performs the role of setting out a number of elements which all return later in the

movement. The types of thematic material and key relations are different from a 'textbook' sonata form account, but the function of setting out materials remains. The first problem with the sonata form account is identifying the beginning of the development section. As shown in Table 5.5, A major remains the tonal centre as the development begins at bar F.3, the point where a modulation is expected. In the following bars the first subject is developed at length, and other elements are also invoked, such as the codetta theme, and the first theme's cadence. Modulations do occur, the first at bar G.2. So the section does perform the development functions of modulation and thematic development, even though the end of the exposition and the beginning of the development are not clearly marked.

Identifying the start of the recapitulation is more difficult. Bar K.2 is tentatively suggested as a starting point in Table 5.5. The obvious problem with identifying this point is that the tonal centre is unclear during these bars. Bar L.8 could be regarded as the start of the recapitulation, as G is clearly established at this point. However the music starts to modulate away immediately. Either way the point of 'double return', so crucial to the sonata principle, is either absent or irrelevant.

In bars L.3-7, the first subject cadence recurs in G with greater tonal clarity than the parallel passage in the exposition. After a period of development, which moves quickly through many key centres, arrival in G is finally affirmed, following a departure that can be placed as early as bar F.3. The development has produced an arrival in the tonic, but this does not mark the start of a new section, instead it is the conclusion of a preceding one.

Rotational form offers a satisfying alternative to the problem of identifying the start of both the development and the recapitulation. A second rotation starts at bar F.3, going through to bar P.7. This 84 bar rotation starts with element 1, dwells upon element 2, and then proceeds through elements 3 to 8. Neither end of this rotation is marked by tonal arrival but there is a strong sense of continuity through the section. The second rotation can be easily understood with reference to the first rotation. There is departure from that precedent, as element 2 is developed, while the later stages of the rotation move through the elements in a similar fashion to rotation 1. The tonal argument involves two processes of resolution. Firstly, there is the arrival described above at bar L.7. Subsequently the tonic returns for element 5. The act of tonal resolution at bars L.3-7, problematic for the sonata form reading, can be taken at face value in a rotational account. Bars F.3-P.7 form one section, during which two acts of tonal resolution occur.

By the end of the second rotation, listening from a rotational point of view, it would be dogmatic not to recognise some engagement with sonata form elements. The first rotation was primarily expositional, it had two main key areas. The second rotation comprised elements of development, followed by recapitulation of later themes. So far rotational form offers a more inclusive account, reactive to the particularities of the movement. Yet it is also a rotational form in dialogue with sonata form conventions.

This makes the start of rotation 3 a significant point in the structure. Given the previous dialogue with sonata form, it would be reasonable to expect rotation 3 to be some kind of coda, perhaps synthesising the themes in a shorter closing section. The start of the rotation features elements 1 and 2, plus phrases such as the one at bars Q.7-R.4, reminiscent of the development section. There is some reference to B and B_b to the point

that either might temporarily be established as a key centre, but G quickly returns. The rotation then builds towards a dramatic climax, but this is not reached. There is a diminuendo and rallentando during bars S.7-8 leading to the first subject cadence. The tonic is affirmed, but the drive to the climax has failed. Furthermore, this turns out not to be a synthesising coda rotation. The next element in the rotation, element 5, enters but leads to the closing bars of the movement. The final phrase is a shortened statement of element 2 in the bass.

If the sonata form account had been continued, despite the problematic start of the recapitulation section, this ‘coda’ would have fulfilled the vital role of returning the first subject in the tonic. In other words, the recapitulation would have continued until very close to the end of the movement. Nonetheless, a suggestion of formal incompleteness seems highly appropriate to this movement, given the abrupt fashion of its ending. My preferred structural interpretation is of a movement engaging with rotational form and in dialogue with sonata form elements. It offers a continuity during the movement which is only broken when the third rotation fails to complete – this is a closer reflection of the musical argument than the ‘faulty’ sonata form account. This aborted third rotation reflects the multiple features of the coda space: a new section beginning with elements 1 and 2 at bar P.8 and the tonal argument being affirmed during these bars, but also a dramatic apex being invoked and then denied, and the thematic argument interrupted. In the first two rotations element 5 linked the appearance of first and second subject section material (the bridge section in rotation 1 and the beginning of the recapitulation in rotation 2). At the end of the movement it simply leads to a two bar fragment of element 2.

Both the second and fourth movements can be understood in terms of rotational form, and on each occasion the third rotation is aborted (Tables 5.6-7, with themes given in Exs. 5.6-7). Neither of these movements appears to be in dialogue with sonata form, but all three movements from *A Pastoral Symphony* which engage rotational form seem to be exploring the same structural process. There are contradictory aspects to each aborted final rotation. On the one hand closure and completion is suggested by the movement coming to an end, and the return of themes from the start of the movement. On the other hand, there is an interruption as the final rotation does not state all the themes, it is not completed. In the first movement, the B \flat minor to G major ‘cadence’ figure, combines both these elements within itself. The opposing element of B \flat minor is balanced with G major, but it is not a decisive resolution; the relationship is one of accommodation rather than synthesis. Yet it still performs the rhetorical function of cadencing.

In the second movement, the first rotation sets out three main elements. Element 1 begins with a pentatonic solo (C, D, E, G, A) which clashes with a held tonic (F minor) triad. This leads to a phrase of parallel chords, suggesting many potential tonalities, but placing the tonic at the registral highpoint and end of the phrase. The second element is a more flowing melody which is passed around the strings and winds, with quaver accompaniment derived from the second half of element 1. This leads to the third element, the fanfare inspired by Vaughan Williams’s experiences in France during the First World War, supported by parallel chords which evoke the accompaniment from the very opening of the movement.²⁷ During this rotation the arrival of each element is marked by a change in accompanying texture. The texture of each section is related in

some way to the opening element, so that the rotation as a whole can be understood to comprise three subsections each differentiated but connected. The second rotation starts with a radical reworking of element 1 for full orchestra, before leading to elements 2 and 3 in turn. The third rotation overlaps with the end of the second rotation. During bars L.1-M.1, a natural horn plays element 3, while element 1 is played by the clarinet, the first part of the third rotation. The movement ends with the repetition of further material related to theme 1. There is a return, but it does not complete the formal process.

In the fourth movement, the final rotation has the same effect (although it does not overlap with rotation 2). But in this movement element 1 also forms an introduction-coda frame. The introduction and coda consist of a wordless soprano, supported by timpani in the introduction and violins in the coda. This theme is also developed at the start of rotation 2, from bar 56 until a dramatic climax at bar 110. Here unison woodwind and strings play a fragment of the opening theme *fff appassionato*, molto largamente. Therefore, element 1 participates in an introduction and coda which frame the main part of movement, and it is developed during the central portion of the movement. The rotational model accommodates this dual function of element 1. However, the rotations can also be seen to map across a symmetrical structural pattern, shown in Table 5.7. This movement can be understood in relation to both the symmetrical and rotational structures. This symmetrical pattern emphasises the way that the third aborted rotation effects a return to the opening. Through the movement element 1 has been reworked in a contrasting way to produce a dramatic tension in the unison climax. But this tension has not been fully worked out. Instead the symmetrical structure is a retreat from it, encasing tension rather than resolving it. In general terms it would seem impossible for a rotational

structure and a symmetrical structure to map onto one another. Rotations are a strophe-like structure while symmetry implies departure and return. Because there is an aborted final rotation, and only two elements within each full rotation, the movement can be understood as simultaneously rotational and symmetrical.

A London Symphony, slow movement

The movement could be described as a simple ternary form (Table 5.8). Although the proportions are somewhat unbalanced by the short final section, this plan still provides a viable outline account of the movement. There are a number of recurring themes and tonal centres within each section that this formal division reflects. Themes 1-3 occur in the A sections. Themes 4 and 5 occur in the B section (Ex. 5.8). The first two themes are linked by their close proximity at the start of the movement, and are followed by theme 3. This leads into a simultaneous return of themes 1 and 2 at bar B.9, and the A section ends with theme 3 in bars C.9-15. There is a strong sense of continuity during this section and a clear break between it and the following section. Theme 4, played by a solo viola opens the B section, and this is developed orchestrally, leading to a climax, theme 5. Theme 4 is developed, leading again to theme 5, and the main climax of the movement. The unwinding from this climax leads into A' and a brief recapitulation of themes 1-3. The only exception to the division of themes between the A and B sections is where theme 4 returns to form the movement's closing bars. This 'epilogue-style' gesture (it is not of sufficient length to form an 'epilogue section' comparable with that which ends *A London Symphony*) could be regarded as somewhat anomalous in an otherwise rounded and closed form. Throughout the movement there are many changes of tonal centre, and keys are often suggested rather than unequivocally established. As the discussion of

harmony and tonality in Chapters 2-4 shows, this is typical of the composer's musical language but it does not assist in the clear definition of a formal structure.

Further examination of the movement brings the suitability of this 'textbook' model into question. The ternary design implies that the movement follows a teleological process whereby the return of A section material encloses a departure, and completes the thematic argument as a kind of 'mini-rondo' form. In Vaughan Williams's music, such a return does not necessarily result in completion, so that ABA' could actually be regarded as simplification to the point of being misleading. It is worthwhile problematising an approach which treats the closing phrase as 'anomalous'. In what follows, I will offer rotational form as an alternative to what might be called 'algebraic' formal analysis, before returning to some methodological issues opened by challenging the ternary account.

A rotational approach is summarised in Table 5.9. The first A section is now divided into an introduction plus two rotations, a third rotation replacing the closing A' section. These rotations are labelled A1, A2 and A3 respectively. The old B section is replaced by two rotations, labelled B1 and B2. These form a rotational process separate from the 'A' rotations.

The beginning of the movement features an eight bar introduction. This features themes 1 and 2, and a recurrent tonal element of modulation by major thirds. The first rotation begins at bar 9, restating the material from the introduction, and extending theme 3. By restating material from the introduction immediately, E is given some status as a referential tonal centre. There is tension between a sense of E as the tonic, and equal division of the octave by major thirds. The former approach treats one pitch as

referential, the latter implies that three pitch centres, E, A \flat , and C, are of equivalent importance.

The end of the first rotation does not have any formal marker such as a closed cadence or a pause. This is typical of rotational form. The rotational principle often effects continuity through the structural junctures, with the end of one rotation and the beginning of another not necessarily causing a break in the music. The development of theme 3 appears to generate the start of rotation A2 at bar B.9, which is marked by a return of the opening themes. The second rotation is shorter: theme 1 is less prominent while theme 2 is developed. Theme 3 is shorter and more subdued, ending the rotation quietly. This ending is emphasised by a pause and a change in tempo and texture so that the beginning of the first B rotation, a separate rotational process from that of the A rotations, is clear. The pitch centre is E at the start of B1. Unlike the A rotations, B1 retains E as a tonal centre, but shifts from tonic minor to tonic major. Rotation B2 is different in that it modulates through a number of keys. It also does not begin with the full solo statement of theme 4, but develops this theme immediately instead. The dramatic apex of the movement is reached during this cycle. Following this, tension is unwound and there is a smooth link into rotation A3.

Given that E, A \flat and C are the only tonal centres established during the A cycles, and that the movement starts on E, it is surprising to find that rotation A3 leads to an ending in A minor. While the tonal centre E cannot be understood to control the tonal direction of the movement in a Schenkerian sense, it clearly has some referential significance. Ending the movement in A therefore disrupts the sense of E as a referential pitch. The sense of disruption is emphasised by the melodic content at this point. The

movement ends with the second complete statement of theme 4. The first statement commenced the middle section, and was in E, the tonal centre whose status as 'tonic' is brought into question by this closing gesture. The 'traditional' relation of these two pitches (E and A) contrasts with the mediant relations between tonal centres found frequently throughout the movement.

In fact E, A \flat and C are all disrupted by their subdominants in some way during the movement. The subdominant of A \flat is never actually established as a tonal centre in this movement. The first, and most sustained suggestion of D \flat occurs during bars A.5-10 (Ex. 5.9). From bars A.1-3, A \flat is the tonal centre. After this, the bass rises upwards by step from A \flat to D \flat twice in succession (bars A.3-5 and A.6-8) before coming to rest on D \flat at bar A.10. However this bass line $\hat{5}, \hat{6}, \hat{7}, \hat{8}$ in D \flat clashes with C minor harmony in the upper parts. Further repetitions of this tension are found at bars C.5-6 and K.1-6.

The subdominant of C is also suggested during the A rotations. The progression first heard at A.15-16 is I-IV⁷⁻⁶ in C (Ex. 5.8, theme 3). This figure is repeated during rotation A3 (bars L.3-5). It is reworked in two further statements at L.5-6 and L.8-9 as I-IV⁷, which can also be heard as V-I⁷ in F major (Ex. 5.10).

Each of the tonal centres which feature most prominently in the A rotations is followed by a suggestion of its subdominant. These suggestions are concentrated towards the close of this movement. The closing rotation is an attempt to move away from the nexus of tonal centres found in earlier A rotations. This movement leaves the tonal argument unresolved.

Situating this second movement in *A London Symphony* as a whole offers an important perspective. The first movement starts with a slow introduction in D Dorian

and D Mixolydian. The beginning of the sonata allegro sets out a tension between E \flat minor and G major triads, and the movement ends in G major. In outline the movement's tonal argument goes from D to G. The movement also defeats a challenge from the flattened submediant. This 'progressive' tonal design is then continued in the second movement which starts in E and ends in A. In turn, this is a (minor) dominant preparation for the third movement in D minor. This is the dominant minor of the final movement's home key, so that the symphony ends in G, the key of the first movement sonata argument. Tonal relationships between the beginnings and ends of movements are significant to the overall design. However, it would be wrong to think that the internal argument of each movement effects a clean shift from the starting key to the ending one. Instead the slow movement's tonal argument is concerned with different types of movement away from E: by major third in the A rotations, from tonic minor to tonic major in rotation B1, by a mixture of minor third and fifth-based relationships in rotation B2, and in the location of a nexus of major third relations on each of the subdominants of E, A \flat and C.

Through all of these different tonal patterns, the thematic argument of the rotational principle is easily identifiable. Particularly in the shift from the first to the second rotation, the rotational principle provides a strong support to a key scheme that divides the octave equally. The two different types of rotation in this movement do not succeed in accommodating the final epilogue phrase, however. Theme 4 belongs to the B rotations, and becomes detached from them. Given this, one might consider that the rotational form has not overcome a significant difficulty of the ternary design. But it is appropriate to show this final phrase beyond the movement's form, to reflect the epilogue

quality of this gesture. Rotations offer a more adaptable approach to the algebraic letter labelling, reflecting a continuous sense of motion through the movement, which may or may not, depending on the course of events in the particular example, result in a teleological design. The real problem with the algebraic account is not the anomalous ending. (Although it would be a problem if the analyst, frustrated by the music not meeting ternary expectations, accused the composer of having a poor grasp of structural principles.) Locating an element outside the main form of the movement is an appropriate way of representing the epilogue gesture. Where ternary form fails to provide an adequate account is in implying that the return of A material creates a closed and rounded form, when the return of thematic material is countered by tonally drifting away from the movement's main key nexus. Rotational form, more sensitive to the particularities of the example is still reductive (necessarily) up to a point, but engages a greater reflexivity between theory and example, and gives a greater sense of a formal process taking place over time.

Symphony in D Major

Three movements from *A Pastoral Symphony*, the first movement of the Fourth Symphony, and the second movement of *A London Symphony* contain rotational processes that are incomplete or open-ended. This is not necessarily a characteristic of rotational form as Hepokoski's analyses of movements by Sibelius show.²⁸ However, it does seem to occur frequently in Vaughan Williams's symphonic movements. Given that the first movement of the Fifth Symphony is titled 'Preludio' it will be even less surprising if it turns out to be incomplete in some way. A number of the structural issues

that have been discussed so far resurface in combination: the relation of sonata form and rotational form; the relative fortunes of the first and second subject materials in the recapitulation; and, the idea of deferred closure. Sonata form sections can all be easily identified in the Fifth Symphony ‘Preludio’, partly because the joins are not obscured as they are at various points in the first movements of *A Pastoral Symphony* and the Sixth Symphony. Within the exposition and recapitulation, the first and second subject sections are juxtaposed, rather than being connected by any bridge section.²⁹ However the same motifs and textures are reworked in both sections. I am proposing that the exposition can also be understood as comprising three rotations. The rotational element is not present in the development, but returns in the recapitulation and coda. Table 5.10 shows this structure. In contrast to the analysis of the *Pastoral Symphony* first movement, where the rotational reading was shown to be in dialogue with elements of a sonata form, in the Fifth Symphony first movement, a sonata form interpretation draws on the principle of rotation, but does not engage it throughout. Tonal and thematic oppositions are not resolved in the recapitulation or the coda sections: closure is deferred to the final movement of the symphony.

The rotations contain six elements, given in Ex. 5.11. Element 1 is a pedal note, first heard at the opening of the symphony on C. It pervades the first subject section. Element 2 is the ‘horn-call’ motif that first appears in bars 1-2. The rhythm of this motif is also developed independently from the melody and harmony of its first appearance. In its first appearance, the horn call establishes the opposition of C and D. C does not function as a tonal centre, but it is sufficiently disruptive to the horn call that neither is D established as a tonal centre. The horn call is immediately followed by a melodic

fragment that also expresses the opposition of C and D: the first four pitches, G-C-D-A, are $\hat{5}-\hat{1}$ (in C) followed by $\hat{1}-\hat{5}$ (in D). A bass fragment moves by step from C to A and back again, before another string melodic fragment gathers this bass fragment and the previous melodic statement together in bars 6-9. As well as elements of C and D, this phrase suggests A in its falling quaver figure. During these opening nine bars the pitch resource is the seven notes of D Mixolydian. However three of these pitches have been suggested as pitch (but not tonal) centres: C is the pedal, the horn call on D, and A in the second melodic fragment. The melodic fragments are all part of element 3, the textural 'soaring melody' element. A motivic element, the perfect fourth interval, is also introduced in these bars. It appears in two forms: as a leap in bars 3-4, and filled in by step at bar 8. From bar 9 there is a change of pitch resource, as F \sharp is replaced with F \natural . The pitch resource is now D Dorian, but the opposition between C in the bass and D in the upper parts remains. In the following bars some new melodic material is introduced: a motivic figure at bar 1.1 (element 5) and a descending melodic pattern, $\hat{8}-\hat{7}-\hat{5}-\hat{2}-\hat{1}$ (element 6). These motifs are also part of element 3, the 'soaring melody' texture. A repetition of elements 5 and 6 brings the first rotation to a close. The first rotation is just 20 bars long, but it sets out the rotational elements, including distinctive textures, rhythms and motifs, that will be developed during the movement. Within the rotation itself, motivic ideas return in expanded phrases, creating the effect of continuous development.

The second rotation (bars 2.1-4.15) comprises the remainder of the first subject section. It develops the materials of the first rotation over a longer section, reintroducing the motifs and themes in the same order as before. No substantial new ideas are

presented. The shift from D major horn calls to the full pitch resource of D Dorian is also repeated, however this longer section then moves through F minor (with no sixth degree used) to C Dorian at bar 4.2. The absence of the sixth degree of F during bars 3.8-4.1, means that for six bars the pitch D is absent, while C remains. The named tonic, D, is temporarily defeated by C during these bars. Following this, D is reintegrated to the C Dorian scale for the closing bars of the rotation.

The first and second subject sections are juxtaposed in a striking way. Immediately, C Dorian gives way to E major - the tonic triads of the two 'keys' are a pair of hexatonic poles. However, the arrival of E major is marked by an incomplete plagal cadence (Ex. 2.2) so that the new key centre is stable from the point of its first arrival. The tonality of the second subject section has been analysed in Chapter Two. The tonalities of the first subject rotations and the second subject section contrast strikingly. But there are also elements of continuity between the two sections. The horn call rhythm (element 2) is used in the second subject accompaniment. The melody is high in the violins, largely reinforced at the octave (element 3). In particular this melody shares the filled-in interval of a fourth which helps articulate cadential arrival (element 4). Even the use of a pedal (element 1) is prominent, although it is now played by the timpani. The opening four bars of this section bring together a number of rotational elements in a newly consonant, major, context. The second subject section, obviously very different from the first subject section, also synthesises a number of elements in a way that has not so far been achieved. For this reason I am interpreting the second subject section as a third rotation. The cadence reached at bar 6a.1 is marked by element 5 leading immediately to element 6. The reworking and recombination of so many rotational

elements in a section which also strongly contrasts in tonality and character from what goes before, makes a strong case for understanding these bars as the second subject section of a two-block exposition, which is simultaneously a third rotation.

The third rotation gives way to the development section, and a return of the key from the end of the second rotation, C minor. But the development interrupts the rotational structure, focusing on a symmetrical motivic figure in the strings and descending thirds in the winds. The tonal centre rises by minor thirds from C, through E \flat , F \sharp and A, before the recapitulation arrives, restating the opposition of C and D. This also marks the start of another rotation. The shift from major horn calls to D Dorian is present, as in the first and second rotations. All the rotational elements occur during this 21 bar recapitulatory rotation, which ends with a variant of element 6 at bar 12.6.

This leads to a *fortissimo* ‘tutta forza’ statement of the melody from the start of the second subject section, now stripped of the horn call accompaniment and tonic pedal. However, these two elements immediately follow at bar 13.1 where G is established as the tonal centre. This is the recapitulation of the second subject section, and the start of another rotation. The section features a massive climax, largely attained through restatement of element 4. In parallel with bar 6a.1, the cadential arrival is marked with elements 5 and 6 (Bar 14.1-5). But now there is a diminuendo from *fff* to *pp*: the climax is followed by exhausted collapse. The tonal centre G remains during the seven bars of this collapse, so there is simultaneously a sense of achievement, but that this cannot be sustained into triumphal closure.

Instead the coda remains quiet and finally ends with a dyad comprising the pitches C and D. In part the coda reuses material from the development section, which

itself stands largely separate from the rest of the movement. The consequence of this is that the coda partially integrates the development with the rotational ‘argument’ that has been sustained throughout the exposition and recapitulation sections. A *piano* ‘soaring’ melody in the strings at bars 15.1-4 recalls the same material as used in the development (bars 9.2-6, 10.5-11, and alluded to throughout the section). But it also sounds as a brief, tamed version of element 3. Finally element 5 (on F) and element 2 (on D) over a C pedal (element 1) are juxtaposed in the closing bars.

While there are obvious contrasts between the halves of the two-block exposition and recapitulation, there is also a continuous development through rotations during both sections. The exposition culminates in the climax at bar 6a.1. The recapitulation revisits this build-up to reach an even greater climax at bar 14.1. But the coda draws further on the rotational materials to avoid a decisive ending, or a ‘deferred closure’. The functions of exposition, development, recapitulation and coda have all occurred in their respective positions, but the rotational procedure creates an overriding continuity that can accommodate climaxes and still leave a sense of a process incomplete.

This movement is also an intriguing working out of the deformation I have labelled ‘second subject victory’. The second subject sections do achieve tonal stability and climactic arrival in a way that the first subject sections do not. But the coda events and the continuity of elements between the first and second subject sections show that second subject victory combines with deferred closure in this movement.

The description ‘deferred closure’ makes an assumption: that closure is expected to occur later. Of course closure of the sonata argument does not necessarily have to be achieved. The Fifth Symphony’s last movement, titled ‘Passacaglia’, is largely based on a

theme which does not occur in the first movement, but shares the descending four note figure (ex 5.12). At bar 13.9, the sonata argument from the first movement returns (along with the tempo of the 'Preludio') in the form of a 22 bar rotation. All the rotational elements are present (except the triplet figure), and there is a shift from a D Mixolydian (no $\hat{6}$) scale to D Dorian (no $\hat{6}$). This is followed by the D major (entirely diatonic) epilogue, based on the passacaglia theme. The opposition between D and C is finally resolved at this point in favour of the symphony's tonic key. But it seems harder to argue that the whole sonata argument of the 'Preludio' is simultaneously resolved. The horn calls and element 5 and 6 are never heard over a D (tonic) pedal. The resolution of the C pedal into D opens the way to a stable ending, but this is an epilogue, not a Brucknerian synthesising coda. The expectation of closure deferred is not fulfilled as the sonata argument is left largely unresolved. In this way the symphony effects a critique of the expectation of closure.

Vaughan Williams's music has never previously been understood with reference to rotational procedures. But analysis of the Fifth Symphony shows that they have some significant role to play in the first movement. As noted earlier, Sibelius's music has been analysed in terms of thematic rotations, especially his fifth and sixth symphonies. Vaughan Williams's Fifth Symphony was dedicated 'To Sibelius, without permission'.³⁰ Kennedy writes that Vaughan Williams had 'an intense admiration' for this composer's music.³¹ Perhaps it was Sibelius's use of rotational form, and more generally the idea of continuous development of motifs throughout a movement that provided Vaughan Williams with a model.

As shown in Table 4.1, the third movement of this symphony can also be understood in terms of a rotational structure. In this movement, the rotations broadly relate to the sonata form sections, although these do not map on exactly, as shown in the table. In Chapter 4, the role of the coda in the tonal structure was discussed. The final rotation contains an arrival in A diatonic major as the culminating point of the whole movement.

Sonata Deformation Types

The analyses presented in this chapter reveal that rotational form plays a significant role in a number of Vaughan Williams's symphonic movements. Rotations may or may not be in dialogue with sonata form. Some movements are in dialogue with established sonata deformational types, such as the breakthrough in the first movement of *A Sea Symphony*, and the reworking of the introduction-coda frame model in the first movement of *London Symphony*. In addition, two new types of sonata deformation have emerged through the analysis:

1) Deferred closure

This is found in the first movement of multimovement works. The thematic and tonal musical materials are not resolved during the recapitulation and coda. The whole first movement therefore sets up a tension to be explored later in the work. The tension may or may not be resolved in the end, but it is referred to in some way at, or near, the close of the work. This sonata deformation subtype can be found in the fourth and fifth symphonies. The search for precedents to this deformation sub-type is problematised by

the fact that a nonresolving movement is somewhat alien to classical formal models. A related idea, with examples from works by Beethoven, is that of nonresolving recapitulation. Here part of the expected function of the recapitulation section is deferred to the coda of the same movement. Another loosely related precedent is the idea of cyclic integration in multimovement works. The connection of thematic materials between movements often increases the sense that the last movement is charged with the task of closing the whole work. Whether or not the final movement actually attains resolution of the tensions of the whole work is a matter open to the interpretation of individual movements.

2) *Second subject victory*

This deformation focuses on the relationship between first and second thematic areas in the recapitulation compared with that in the exposition. In many romantic and early modern works the opposition of first and second theme groups, a crucial feature of *Formenlehre* accounts, is emphasised by the juxtaposition of the two sections without a bridge passage. Instead of the recapitulation accommodating the second subject in the tonic key, this deformation features increased opposition between first and second subject areas. The internal tensions of the first theme materials remains, while the resolving or stable qualities of the second theme are celebrated. The second subject successfully resists appropriation by the first subject during the recapitulation. Earlier precedents for second subject victory could be sought in the idea of nonresolving recapitulation. Examples of second subject victory can be found in the first movements of the *London*, fifth and sixth symphonies. The second subject victory may cause triumphal closure in the tonic – this is exemplified by the first movement of *A London Symphony*.

Alternatively, it may not result in the whole movement achieving closure, depending on events in the coda space. The coda events may cause ‘deferred closure’, as in the first movement of the Fifth Symphony, or frame the recapitulation ‘victory’ event by invoking another opposition, as found in the first movement of the Sixth Symphony.

Structure and Genre

The Eighth Symphony opens with a set of variations. This is the only first movement of a Vaughan Williams symphony that is unrelated to sonata form. A variety of sonata deformation strategies are employed: breakthrough, play with the introduction-coda frame model, second subject victory, deferred closure, rotational dialogue with sonata form. As discussed earlier, precedents for sonata deformation types can be found in classical and romantic symphonies. The generation of ‘early modern’ composers, identified by Hepokoski, following Dahlhaus, engaged the deformation types, in accordance with expectations of the symphony as a genre. The deformation strategy enabled composers to demonstrate their ‘originality’, through their deformation of the ‘textbook’ form. A similar approach is found in Vaughan Williams’s music, although this composer was working in a later period.

While these sonata deformations were in play for ‘early modern’ and many later composers, this is not a definitive indicator of the symphony as a genre. Indeed, the identification of defining symphonic features is now surely an impossible task. There is no essential content shared between the symphonies of, say, Stamitz, Beethoven, Shostakovich and James Macmillan. The *New Grove* defines the symphony as follows:

A term now normally taken to signify an extended work for orchestra. The symphony became the chief vehicle of orchestral music in the late eighteenth century, and from the time of Beethoven came to be regarded as its highest and most exalted form. The adjective 'symphonic' applied to a work implies that it is extended and thoroughly developed.³²

The contemporary definition, given as the first sentence above, reflects the current position: any long work that is called a symphony is a symphony.³³ This marks a significant shift from the positions of critics in early-twentieth century Britain, where a tighter set of criteria was applied. At various points, Vaughan Williams's music came into conflict with these expectations. There was a suspicion of programmatic elements, but the first three symphonies had titles. Symphonic music was regarded as distinct from 'lower' forms and genres, yet music from 'real life' was quoted in *A London Symphony* and every symphony includes folksong-like melodies. Rotational forms and epilogue sections prevented dialectical resolution of the musical argument. Evidence of the composer's originality was found wanting when similar thematic and harmonic devices recurred in different symphonies. The following remarks were made in reviews of the first performance of the Ninth Symphony:

'Chatting to the converted' ... 'It is composing for the sake of composing'. The themes 'plainly resemble the themes of his other works'. The adjectives 'silly' and 'asinine' were applied to the second movement.³⁴

These factors reflect that attitude towards the symphony summarised in the *New Grove* definition as the 'highest and most exalted form'. Where critics applied a Beethovenian set of expectations to twentieth-century symphonies this was clearly problematic. My purpose here is not to engage these arguments. I raise them simply to make the point that in Vaughan Williams's symphonies, their generic status is conveyed differently. The genre is signified by the types of movements composed. But this is not just the dialogue

with sonata form in the first movement. All the four movement symphonies have one Scherzo and one slow movement as the middle pair. The *Sinfonia Antartica* has five movements. Of the middle three, one is a Scherzo, the other two are slow movements. The final movements engage the rhetoric of a closing movement, drawing on devices such as rondo form, epilogue sections and ‘breakthrough’ events. All of Vaughan Williams’s symphonic movements can be understood in dialogue with the movement types of the symphony as a genre. The presence of a slow movement and a Scherzo in every symphony makes these more consistent markers of the genre than the dialogue with sonata form (which is absent from the Eighth Symphony).

The slow movements employ a range of structural strategies: the fourth uses a sonata form; rotational structures are engaged in the *London*, Pastoral, fifth and ninth symphonies; ternary structures are found in the *Sea*, sixth and *Sinfonia Antartica*. The slow movement of the Eighth Symphony is titled ‘Cavatina’ and is scored for strings (contrasting with the symphony’s Scherzo for winds). It evokes the style of a pastoral rhapsody for strings. In each of the slow movements a recognisable structural strategy (or in the case of the eighth, a related genre) is invoked.

The Scherzi employ the expected ABA, or ABABA, structure every time, where the B sections represent Trio material. In some cases the initial A section consists of two varied strophes. The closing A section is generally shortened. The combination of opening double strophe and shortened closing A section can change the proportions of the Scherzo considerably, as in the Ninth Symphony.³⁵ Perhaps the most unusual feature of any of the Scherzi is the attachment of a lengthy coda section in *A Pastoral Symphony*.

In outline the Scherzo is a structural strategy the listener can easily identify and may signify the symphonic genre.

The final movements engage a variety of closure devices that can be summarised in five types. Firstly, the self-contained rondo structure. Here the movement is based around one recurring theme, creating a unifying design that on the one hand emphasises a main idea through its repetition, and on the other hand accommodates other material in the intervening episodes. Secondly, an integrative rondo structure. The same points as for the self-contained rondo apply, except that the episodes include material from earlier movements. This creates an effect of drawing together material as closure approaches that critics have described as effecting ‘cyclical unity’. Thirdly, an epilogue section or gesture. This will be the final closure gesture that will normally follow other factors suggesting closure is imminent. Fourthly, return of the first movement main theme. The main theme may be included in an integrative rondo, in an allusive way. Alternatively the main theme may return more forcefully, to change the course of the finale, and it is this which is meant by ‘return’ of the first movement main theme. Fifthly, a ‘breakthrough’ event. This changes the course of a movement, opening a path to closure.

Not all the symphonies end with a resolution of the tensions within, but all invoke the rhetoric of closure. The presence of these elements in Vaughan Williams’s symphonies is summarised in Table 5.11, and one of these movements is analysed in detail in the following section.

Ninth Symphony Finale

Vaughan Williams describes this movement as ‘really two movements, played without break’.³⁶ Frogley notes that the composer describes his music misleadingly, for there is a significant level of connectedness about the two ‘movements’. On this basis, Frogley proposes a binary structure.³⁷ In Table 5.12 I give a further alternative, which shows the rhetoric of closure as an important element of the movement’s structure. The themes are given in Ex. 5.13. This movement starts as a rotational form. The first rotation contains four main themes, one of which is repeated. The second rotation contains some variation in the ordering of themes, but the basic structure is discernible. The rotational principle is being employed flexibly, in a comparable fashion to other rotational movements. One difference is that no other Vaughan Williams finale uses rotational form, so its appearance at this stage is perhaps a little unexpected.

A new theme is introduced at bar 16.1. It is heard first in the violas below a high violin pedal, and immediately generates a contrapuntal texture, based on this theme. At first it sounds as if this section will be an episode. A structural pattern of rotations has already been established, and so it seems likely that any new idea will be accommodated within this. Themes from the first movement are recalled, amidst the development of theme 5. Certainly theme 5 is a central element of the second half of the movement, which builds to a massive climax on this theme at bar 29.1. When the earlier themes are interspersed with further development of theme 5 during bars 22.1-29.1, the breakthrough theme has a similar function to the main theme of an integrative rondo. At the point of climax, the importance of the events starting at bar 16.1 is revealed, theme 5’s function as an initially understated breakthrough event is confirmed, and as a consequence the

overall shape of the movement clarifies. The breakthrough device is familiar from works such as Strauss's *Don Juan* and the finale of Mahler's First Symphony.³⁸ The extra trick played on the listener in Vaughan Williams's Ninth is that the breakthrough event is introduced quietly as if it is an episode. In the passage from the disguised breakthrough to the climax, the relationship between themes from the rotations and the breakthrough theme gradually changes.

The point of climax is in C major, with disguised tonic-dominant harmony, as shown in Ex.5.14. The example also shows a number of modal alterations at and around the climax bars (29.1-2). A moment of major tonality is glimpsed amongst minor modal alterations. It is not just that $\flat\hat{3}$ is changed to $\sharp\hat{3}$ at 29.1, but $\flat\hat{2}$ at 28.4 becomes $\sharp\hat{2}$ at 28.5, $\flat\hat{6}$ at 28.3 becomes $\sharp\hat{6}$ at 28.4 and $\flat\hat{7}$ from bar 28.4 becomes $\sharp\hat{7}$ at 29.2. This moment of C major is not part of a progressive tonal scheme, leading to closure in this major key. Three of the minor modal alterations return in subsequent bars ($\flat\hat{6}$ and $\flat\hat{7}$ at 29.3, $\flat\hat{3}$ at 30.1). $\flat\hat{2}$ does not return in C, although this scale degree features in E during the coda (Ex. 5.15).

In the first half of a two-part coda, fragments of theme 2 and theme 4 are juxtaposed. While the breakthrough effected a climax, it has not succeeded in containing the material from the opening rotational process. Themes 1 and 3 do not recur after bar 16.1 – although the breakthrough is successful it cannot contain all the earlier themes, and ignores two of them. When themes 2 and 4 return after the climax they forcibly reject transformation into the tonic major (Ex. 5.15): within a key signature of E major, the tonic and the tonic minor are juxtaposed in the theme 2 fragment, and theme 4 articulates

its flat modal alterations, at first: $\flat\hat{2}$ and $\flat\hat{6}$ (no $\hat{3}$). Then $\flat\hat{7}$ and $\flat\hat{5}$ at 33.4-5 and finally a collapse into $E\flat$ major at 33.5-6.

The second part of the coda, starting at bar 34.1 sustains the tonic major, resolving the F minor saxophone figure from the first movement into the tonic major at bar 34.4 and 35.1. The climax may have been forceful but it has not led to a synthesis. The final bars are stable, but the tonic major has been asserted by force, rather than coming as a result of the climax. With regard to the tonal argument, there have been so many different tonal centres and tonal oppositions that it seems hard to imagine any closing strategy that would actually draw together a convincing synthesis. The validity of this expectation could be challenged if the symphony's full title was not *Symphony No. 9 in E Minor*:

what may constitute true resolution in a complex tonal language of the kind employed by Vaughan Williams is clearly open to question. In some ways it runs counter to this ambiguous symphony to look for definitive resolution; and yet the way in which the Finale builds to its climax invites a search for firm conclusions.³⁹

The finale of the Ninth Symphony draws on the rhetoric of closure in order to play with the expectations associated with the symphonic genre. Twice the movement steps out of the discourse it has established for itself: firstly at the breakthrough event, secondly in the second half of the coda space. Such moves are part of the rhetoric of closure in this music. But invoking the rhetoric of closure is not the same as achieving closure. Ultimately the breakthrough does not open the way to successful synthesis, as the second half of the coda is an epilogue gesture. The climax does not work against closure, it contributes (flat submediant) major mode material, but a further step is required to actually close in the tonic major. The irony is that although the final bars represent a closure in the tonic major, they do not contain the material of the movement.

Form and Expressive Shape

Stepping out of the discourse of a movement is an important element of the rhetoric of closure, and in Vaughan Williams's symphonies as a whole. All types of movements contain examples of this. The first movement of *A London Symphony* has an episode for strings and harp inserted in the development section. The Fifth Symphony Scherzo contains a slow chorale-like episode quite different in style from the rest of the movement. The slow movement of the Ninth Symphony ends on a chord which sounds quite divorced from the preceding music. The finales contain a variety of devices discussed earlier in the chapter. Most of Vaughan Williams's compositions end quietly and this represents a more general idea of standing back from the main discourse established at the end of the movement. Of the composer's thirty-seven symphonic movements, only seven end loudly.

In many movements, not only is it the case that the movement ends quietly, but this ending seems to flow directly out of a loud climax that forms the expressive apex of the movement. In these cases the expressive shape of the movement can be approximately represented by the growth and decay shown in Fig. 5.1. Such shapes are discussed in relation to Sibelius's music.⁴⁰ Here, rather than an expressive climax opening a path to victory, this point forms the movement's *telos*, which is followed by a decay or collapse in tension. The first movement of the Fifth Symphony illustrates this. As shown in Fig. 5.2 there are three climaxes in the movement, but it is the last one which is the overall expressive goal, or *telos*, and it leads very quickly to a decreased dynamic, and a return of the tensions with which the movement began.

A similar pattern occurs in the last movement of *A Pastoral Symphony*. Here, there is a peak in the middle of the movement, the unison statement of theme 1. This is not a climax, so much as a point of extreme tension. The expressive climax comes very close to the end of the movement. It comes as a successful release of tension, like the second subject victory in the first movement of the fifth, but it too is followed by a post-climactic collapse into tensions from the start of the movement.

There are two instances where a point of climax leads immediately to stepping out of the discourse of the movement. In the first movement of the Ninth Symphony, there is clearly a main climax, which occurs at bar 17.5. This leads to an episode which is based on the movement's second subject. The theme is greatly extended in a section featuring solo violin and flugelhorn, the start of which sounds as a clear disjunction. The Scherzo from the Fifth Symphony provides the second example. The majority of this movement is at a low dynamic level. Brass and wind interjections are the main disruptions to this. These interjections become more closely spaced towards the end of the movement. The last one forms the movement's climax. It is played by the whole orchestra, and leads into the post-climactic chorale episode for strings mentioned above.

Obviously not all movements by Vaughan Williams follow such patterns of post-climactic collapse. The first and last movements of the Fourth Symphony contain a great deal of loud music throughout with no obvious main expressive apex. Similarly many of the Scherzi do not have an expressive apex, but many do follow the pattern of ending quietly. However, the idea of post-climactic descent or collapse is common.

The *Tallis Fantasia* is an earlier, non-symphonic model of climax and post-climax events. The climax itself is clearly the expressive apex of the movement. It is also the

registral highpoint. An unwinding of tension follows the point of climax, leading to a return of the main theme and stable closure in the tonic. But here the climax does not lead to closure directly. Two different perspectives are offered on the climax event. The first is the experience of the climax itself: fully committed, a satisfying release of pent-up tension. The second results from the descent and a return of earlier material. Now the climax is cast in a new light. It did not fundamentally alter the course of the movement or open a path to victory, yet at the time it was experienced as a genuine release. The post-climax events frame the climax experience and offer an alternative perspective to that previously enjoyed.

Generally the post-climax events involve a return of material from earlier in the movement. But this is not usually a recapitulating return. This is the principal reason for rejecting a ternary model in the slow movement of *A London Symphony*. The returning materials are now heard in the light of the climax event: they may frame the climax, but they do not usually contain it within a closed structure. At the end of the movement the climax has cast a shadow over the returning material, the returning material has cast a shadow over the climax: the climax and post-climax events are locked into binary opposition.

This sequence of fully committed climax, then expressive collapse or descent coinciding with thematic return is by no means a formula, consistently producing the same effect. I would highlight three post-climax types. The first is illustrated by the *Tallis Fantasia* where the post-climax section is lengthy enough that closure feels convincing and stable. In addition a mini-departure-and-return is contained within the post-climax material. This creates an unusual example where the outer sections contain the events

within: this is a ternary structure with a long B section. Here the genre contributes to the relationship. A Fantasia on a theme comes with the expectation that the theme is the originating, main material. The theme's return contains the fantasia material derived from it.

The second post-climax type is where the returning material contains an inherent instability which goes unresolved. Here the post-climax events, although still framing the climax, do not resolve the tensions of the movement. The first movement of the Fifth Symphony and the final movement of *A Pastoral Symphony* both illustrate this. An additional example is the first movement of the Ninth Symphony where an opposition between F minor triads and an E minor tonic pedal remains unresolved. This tension is resolved in the second half of the coda to the final movement.

The third type of post-climax event is where an epilogue gesture or section occurs. The slow movement of *A London Symphony* has already been mentioned as an example where the return of material does not contain the impact of the climax. But here the additional device of an epilogue gesture causes a step back from the climax/post-climax relationship. Similarly in the finale of the Ninth Symphony, the second half of the coda steps back from the opposition of breakthrough/rotation themes in the climax and first half of the coda as an epilogue gesture. Here the epilogue gesture interrupts the established flow of discourse in a movement and points outwards, through a different musical discourse. In the Ninth Symphony finale it prompts a return of material from the first movement and effects a tonal resolution that was earlier left unresolved. Sometimes, as in the finale of the Fifth Symphony, the outward look of the epilogue is towards some idea of the transcendent.

Conclusion

The symphony, once judged as that 'highest and most exalted form', came to be associated with a demanding set of generic expectations. In the early twentieth century British critics expected originality, dialectical resolution and a 'purely musical' argument untainted by functional music from everyday life. Vaughan Williams's music was judged to violate these expectations. Critics and composers then either sought to explain why the symphony in question deviated from these generic associations,⁴¹ or found the symphony wanting.⁴² By contrast it is not necessary to invoke such a generalised definition of the genre as 'an extended work for orchestra' when discussing Vaughan Williams's symphonies. The types of movements and the structures employed signify that these compositions are symphonic: sonata form play in the first movement, one slow movement and a Scherzo as the middle movements, and some motion towards closure in the finale (even if a definitive resolution is denied).

Each movement type has a range of structural strategies to draw on. The Scherzi draw on the smallest range of structural variants - ABA, AABA, ABABA - with the option of a coda added to any of these designs. For using a smaller number of related structural procedures the Scherzo is the clearest signifier of the symphonic genre. Slow movements have a wider range of strategies available including ternary, sonata form, rotational structures. But with the Scherzo these two movements form the middle pair in eight of the nine symphonies. The rhetoric of closure in final movements includes overall structural strategies, such as rondos and epilogues, as well as events, including return of the first movement main theme, and the arrival of a breakthrough theme.

The presence of expected movement types is a much more reliable generic signifier than the aesthetic expectations applied by early critics of this music. Whilst the movement types consistently indicated the genre, the other expectations could be problematised. The music could be symphonic and contain programmatic elements, quote 'everyday' themes, refuse dialectical resolution or rework material first heard in other compositions.

The fairly recent development of sonata deformation theory has contributed an approach to sonata form movements which is sensitive to the particularity of individual movements, harnessing a sense of form being performatively engaged during the unfolding of a movement, and recognising form as a generic signifier. This flexibility partially lies in the potential for new deformational types to be proposed, such as 'deferred closure' and 'second subject victory'. Sonata deformational types offer a great advantage over attempted sonata form definitions, particularly when analysing more extended movements. The sonata principle, more suited to many, but by no means all, classical sonata form movements, is stretched beyond breaking point when it is applied to music of the later nineteenth and earlier twentieth centuries. Rotational form has also only been observed in recent writings, yet it appears to be applicable to a wide range of composers' music, including Bruckner, Mahler, Sibelius and Vaughan Williams. While sonata deformation theory casts an illuminating perspective on first movements, equally there is an established range of structural strategies available for slow movements, Scherzi and finales to draw upon.

What does not happen in a movement can be vital. It is no longer confusing to find an incomplete sonata form plan, a movement that does not resolve all the tensions

within, a theme that first sounds like the start of an episode turning out to be a disguised breakthrough point, a climax that does not lead to triumphal closure. However, expectations can be brought to a symphony by Vaughan Williams that had been applied to generations of previous symphonists since Beethoven: the teleological impulse, cyclic integration, tonal and thematic resolution, the strife to victory model. Play with expectation was nothing new as Dahlhaus's 'early modernists' routinely invoked a symphonic strategy only to reject it. The structural innovations that were developed by composers such as Mahler, Sibelius and Strauss were not confined to a period ending with the emergence of atonality. Similar structural play is invoked in Vaughan Williams's symphonies. At times, the interplay of structure, climax and closure results in failure of the apparently invoked strategy. This, of course, is a strategy in itself.

ENDNOTES

¹ '[I]f analysis can display musical unity, then it must also have the capacity to display disunity.' Fred Everett Maus, 'Concepts of Musical Unity', in Nicholas Cook and Mark Everist, eds, *Rethinking Music* (Oxford: Oxford University Press, 1999), p. 171.

² '[I]mportant statements made in a key other than the tonic must either be restated in the tonic, or brought into a closer relation with the tonic, before the movement ends.' Edward T. Cone, *Musical Form and Musical Performance* (New York: Norton, 1968), pp. 76-7.

³ James Hepokoski shows that the sonata principle has been understood according to different definitions, contrasting the formulations given by Edward T. Cone, Ethan Haimo and James Webster. Hepokoski's assessment is that 'the sonata principle commonly functions as a hazy,

background truism to be largely reaffirmed, not problematized.’ (‘Beyond the Sonata Principle’, *JAMS*, vol. 55/1 (2002), p.93.) A contrasting ‘Sonata Theory’ will (presumably) be presented in James Hepokoski and Warren Darcy, *Elements of Sonata Theory: Norms, Types, and Deformations in the Late-Eighteenth-Century Sonata* (Oxford: Oxford University Press, forthcoming). Scott Burnham discusses some classical exceptions to the sonata principle in ‘The Second Nature of Sonata Form’ in Suzannah Clark and Alexander Rehding, eds, *Music theory and Natural Order from the Renaissance to the Early Twentieth Century* (Cambridge: Cambridge University Press, 2001), pp. 111-41.

⁴ Mark Evan Bonds, *Wordless Rhetoric: Musical Form and the Metaphor of the Oration* (Cambridge, M.A.: Harvard University Press, 1991), pp. 36-52.

⁵ Bonds, *Wordless Rhetoric*, p. 54.

⁶ Joseph N. Straus, *Remaking the Past: Musical Modernism and the Influence of the Tonal Tradition* (Cambridge, M.A.: Harvard University Press, 1990), p. 97.

⁷ Charles D. Morrison, ‘Formal Structure and Functional Qualities in the First Movement of Bartók’s First Violin Sonata (1921)’, *Music Analysis* 20/3 (2001), p. 328.

⁸ *Ibid.*, pp. 329, 332, 337.

⁹ *Ibid.*, p. 327.

¹⁰ The literature on *Don Juan* is summarised by Hepokoski in ‘Fiery-Pulsed Libertine or Domestic Hero? Strauss’s *Don Juan* Reinvestigated’, in Bryan Gilliam, ed., *Richard Strauss: New Perspectives on the Composer and His Work* (Durham: Duke University Press, 1992), pp. 142-3. A free sonata structure is proposed by Norman Del Mar, *Richard Strauss: A Critical Commentary on His Life and Works* (Ithaca: Cornell University Press, 1986 [1962]), vol. 1, pp. 65-9 and Michael Kennedy, *Richard Strauss* (London: Dent, 1976), pp. 129-30; a free rondo structure is proposed by Gerald Abraham, *A Hundred Years of Music*, 3rd edn (Chicago: Aldim, 1996), p.

209; Douglas Green argues for an ad-hoc structure of AA'BA'' in *Form in Tonal Music*, 2nd edn (New York: Holt, Rinehard and Winston, 1979), pp. 299-303.

¹¹ Burnham, 'The Second Nature of Sonata Form', p. 111.

¹² Carl Dahlhaus, *Nineteenth-Century Music*, trans. J. Bradford Robinson (Berkeley: University of California Press, 1989), p. 330 quoted in Hepokoski, *Sibelius: Symphony No. 5* (Cambridge: Cambridge University Press, 1993), p. 2.

¹³ Hepokoski, *Sibelius*, p. 2.

¹⁴ Hepokoski, 'Beethoven Reception: The Symphonic Tradition', in Jim Samson, ed., *The Cambridge History of Nineteenth-Century Music* (Cambridge: Cambridge University Press, 2002), p. 456.

¹⁵ Hepokoski, *Sibelius*, p. 5.

¹⁶ Hepokoski, 'Fiery-Pulsed Libertine', p. 143.

¹⁷ Theodor W. Adorno, 'On the Problem of Musical Analysis', trans. Max Paddison, *Music Analysis* 1/2 (1982), p. 173.

¹⁸ Some written accounts of sonata form include Nancy Kovaleff Baker, *Heinrich Christoph Koch: Introductory Essay on Composition* (New Haven: Yale University Press, 1983), pp. 197-213; A. B. Marx, *Musical Form in the Age of Beethoven: Selected Writings on Theory and Method*, ed and trans. Scott Burnham (Cambridge: CUP, 1997), pp. 91-154; and, Johann Christian Lobe, 'Die erste Form des Streichquartetts' in Ian Bent, ed., *Music Analysis in the Nineteenth Century: Volume One, Fugue, Form and Style* (Cambridge: Cambridge University Press, 1994), pp. 197-220.

¹⁹ Hepokoski, *Sibelius*, pp. 58-77, and 'Rotations, Sketches, and the [Sibelius's] Sixth Symphony' in Timothy L. Jackson & Veijo Murtomäki, eds, *Sibelius Studies* (Cambridge: Cambridge University Press, 2001), pp. 322-51.

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- ²⁰ Warren Darcy, 'Rotational Form, Teleological Genesis, and Fantasy-Projection in the Slow Movement of Mahler's Sixth Symphony', *Nineteenth-Century Music*, vol. 25/1 (2001), p. 52.
- ²¹ Darcy, 'Bruckner's Sonata Deformations', in Timothy L. Jackson & Paul Hawkshaw, eds., *Bruckner Studies* (Cambridge: Cambridge University Press, 1997), pp. 256-77.
- ²² Timothy L. Jackson, 'The Finale of Bruckner's Seventh Symphony and the tragic reversed sonata form' in Jackson & Hawkshaw, eds, *Bruckner Studies*, pp. 140-208.
- ²³ Darcy, 'Bruckner', pp. 256-77; James Hepokoski, 'Back and Forth from *Egmont*: Beethoven, Mozart, and the Nonresolving Recapitulation', *Nineteenth-Century Music*, vol. 15/2-3 (2002), pp. 127-54.
- ²⁴ Darcy, 'Bruckner', p. 259.
- ²⁵ Hepokoski, 'Beethoven reception', pp. 447-54.
- ²⁶ Carl Dahlhaus, *Between Romanticism and Modernism*, trans. Mary Whittall (Berkeley: University of California Press, 1989 [1974]), p. 98.
- ²⁷ Kennedy, *The Works of Ralph Vaughan Williams*, 2nd edn (Oxford: Oxford University Press, 1980), pp. 170-1.
- ²⁸ Hepokoski, *Sibelius*, pp. 58-70.
- ²⁹ There are many nineteenth-century precedents for this. Hepokoski, 'Beethoven Reception', pp. 448-50, proposes the 'gendered two-block exposition' as a structural element in movements such as Wagner's *Flying Dutchman* overture, Tchaikovsky's *Romeo and Juliet*, 6/i, and Mahler's 1/iv, 2/i, 6/i and 5/ii.
- ³⁰ Kennedy, *A Catalogue of the Works of Ralph Vaughan Williams*, 2nd edn (Oxford: Oxford University Press, 1996), p. 173.
- ³¹ Kennedy, preface to Vaughan Williams, *Symphony No. 5 D Major* [Miniature Score] (London: Eulenberg, 1982), p. iv.

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- ³² Jan La Rue and Eugene K. Wolf, 'Symphony', in Stanley Sadie and John Tyrrell, eds, *New Grove Dictionary of Music and Musicians*, 2nd edn (London: Macmillan, 2001), vol. 24, p. 812.
- ³³ This question is pursued by Hans Keller in 'The State of the Symphony: Not only Maxwell Davies's', *Tempo* 125 (1978), pp. 6-11.
- ³⁴ Kennedy, *The Works of Ralph Vaughan Williams*, 2nd edn (Oxford: Clarendon Press, 1980), p. 343. The quotes are not attributed in the source.
- ³⁵ Alain Frogley, *Vaughan Williams's Ninth Symphony* (Oxford: Oxford University Press, 2001) pp. 148-55.
- ³⁶ Kennedy, *A Catalogue of the Works of Ralph Vaughan Williams*, 2nd edn (Oxford: Oxford University Press, 1996), p. 235. Programme note to the first performance.
- ³⁷ Frogley, *Vaughan Williams's Ninth Symphony*, p. 193.
- ³⁸ Hepokoski, 'Fiery Pulsed Libertine', pp. 135-76; James Buhler, '“Breakthrough” as Critique of Form: The Finale of Mahler's First Symphony', *Nineteenth-Century Music*, 20/2 (1996), pp. 125-43.
- ³⁹ Frogley, *Vaughan Williams's Ninth Symphony*, pp. 202-3.
- ⁴⁰ Hepokoski, 'Rotations', p. 327-9.
- ⁴¹ Herbert Howells, 'Vaughan Williams's "Pastoral Symphony"', *Music and Letters* 3 (1922), pp. 122-32.
- ⁴² 'A Pastoral Symphony ... gave rise to some of the most asinine contemporary comments, e.g. Hugh Allen's "it suggests V.W. rolling over and over in a ploughed field on a wet day".' in Kennedy, *A Catalogue*, p. x-xi.

Chapter 6

Conclusions

Having drawn on a number of different theoretical perspectives, it seems no more likely that an overarching Vaughan Williams ‘theory’ could be developed than it did in Chapter Two. But each of the theoretical contexts has opened a complementary perspective, and the analyses have provoked theoretical reflection. Clearly, modal theory, in respect of twentieth-century music, is largely under-developed.¹ An overarching theory seems highly unlikely – the range of composers engaging modal elements is wide, including Darius Milhaud, Bartók and Stravinsky. Rehearing modal elements against a context of tonality is a key challenge for theorising modes in Vaughan Williams’s music. The previously attempted extensions of Schenkerian analysis also offer a way into investigating these relationships. Informed by this approach, modalised tonality is offered here as a way of exploring the interaction of flexible scale degrees with tonal centricity.

While modes are under-theorised, Neo-Riemannian theory is vulnerable to the charge of over-theorisation. Certainly theory leads analysis in the majority of published articles. The repertoire studied has largely remained within the nineteenth-century Austro-Germanic canon. Within this another ‘canon’ of favoured musical examples has emerged, but analytical engagement in relation to Vaughan Williams’s music opens a useful perspective on the harmonic progressions in question. The idea of voice leading efficiency and the general properties of chords a third apart are perhaps more relevant than the straight application of particular theoretical models to passages of the composer’s music. Even so, the emphasis on contrapuntal properties

of harmonic progressions remains illuminating. The different musical context leads analysis to inform theoretical reflection. While most of the Neo-Riemannian musical examples illustrate temporary suspensions of tonal norms, Vaughan Williams's 'characteristic' progressions often occur against a much more tonally flexible background. From investigation of these relationships, I have proposed that the roots of third relations are a distinguishing feature of the progressions in question.

Sonata deformation theory is perhaps the most straightforwardly applicable of the theories engaged with during this thesis. This is due in part to the inherent flexibility of the theory. The facility to propose new sonata deformation types reflects this. Sonata deformation theory enables structural processes to be related to the institution of the symphony. But while Hepokoski and Darcy have focused on a generation of 'early moderns', the applicability of their theory stretches well beyond this group of composers. Through exploring these structural dilemmas, not only is a valuable perspective opened on Vaughan Williams's symphonies, but it may be considered that Vaughan Williams's music shares concerns with works by Sibelius, Mahler and Strauss. Rotational form is frequently employed in the symphonies, often opening a dialogue with conventional elements of sonata form. This structural element, though it may not be the only organisational principle at work, often provides a line of continuity through diverse thematic materials.

In Chapter One, I suggested some common themes in recent music analysis within the very broad area of 'composer studies'. These have provided some methodological principles that have remained constant, while theoretical perspectives varied. Three of these are general observations which offer a disciplinary context rather than informing particular analytical propositions. Firstly, the diversification of 'composer studies' towards previously neglected figures is evident from the literature.

Secondly, the interdisciplinary context of music analysis is felt now more keenly. Thirdly, the moves towards increasingly elaborate, technical theories (Neo-Riemannian Theory) and a greater awareness of context have both played a role in this thesis. Three more points have been evident in the practice of analysis: it has been productive to hold apart the ‘life’ and ‘works’ duality; the analysis has been interpretative rather than factual; theory has been engaged with instead of simply applied.

One might consider that close reading resists generalised conclusions about a composer’s musical language as the methodology looks towards details, studying the particularities of individual pieces. But it would also be surprising if such an approach did not suggest some generalities about the composer’s musical language. Given the methodology employed, what conclusions can be reached about Vaughan Williams’s music? It does not easily divide into stylistic periods. Although the early influence of a romantically inspired chromaticism declined, once other techniques started to emerge, these were revisited in the composer’s music throughout his life. While the pastoral element persisted, so did more confrontational techniques. The composer never decisively moved away from pastoralism towards modernism, and any such ‘progressive’ narrative seems inappropriate. Likewise it is not the case that once established, the composer’s musical language remained constant for the rest of his life. Instead, it is more representative to consider his musical language as one where the range of techniques employed expanded over time. Such an approach views the dissonance of the fourth symphony as one facet of Vaughan Williams’s musical language, rather than an anomaly. In addition, largely diatonic pieces composed as early as 1901 (‘Linden Lea’, the composer’s first published song) and as late as 1952 (the short motet ‘O taste and see’) are accommodated.

While more specifically tailored norms have been proposed in relation to Vaughan Williams's music such as modalised tonality, 'characteristic' harmonic progressions, structural deformations, some norms more readily associated with aspects of nineteenth-century romanticism have not entirely disappeared. These include diatonicism, tonal centricity and the four-movement symphony plan. One might doubt the relevance of these norms to a twentieth-century composer if Vaughan Williams's musical language had shifted from one style to another, rather than gradually expanded. Given this process, those norms most commonly associated with nineteenth-century romanticism do have roles to play. Diatonicism, especially when it is strategically positioned after long periods of tonal opposition and modalised tonality, can appear without *naïveté* in a hard-won tonal resolution. This occurs in the Fifth Symphony, as first the symphony's dominant and then its tonic are 'won' during the final two movements. Tonal centricity plays some role in all Vaughan Williams's music, whether it is present, resisted or temporarily suspended. Of course the listener comes to expect play with the idea of centricity. But it is equally possible for it not to be problematised during diatonic passages and in modalised music where it is gently sustained by frequent presence and a wide range of cadential motions. Sonata form is perhaps the one procedure that cannot be employed without some sense of 'play'. It is a generic marker in the symphony, but equally it is normal that deformation occurs in tonal symphonies from the mid-nineteenth century onwards. In other words, deformation becomes normative. While structure is individualised in first movements, a much more restricted range of structural procedures are employed in the Scherzi. Of course other elements may be more keenly contested - the role of tonal centricity may be challenged in such movements, for example - but the outline form remains easily apparent to the listener.

From the ‘old’ norms, more specific approaches have been developed. But it is the case that points of contact have also remained with notions of tonality and structure typical of the common-practice period. Tonality is *modalised*, there is *play* with tonal centrality, conventional structures are *deformed*. It has been appropriate to retain a dialogue with an earlier set of norms, articulating a sense of difference between one musical language and another, during this analysis. Furthermore, the range of harmonic, tonal and structural strategies built upon ‘new’ norms is wide. While a range of suitable expectations may be brought to the music, no particular outcome is ever guaranteed until the last note has ended: local harmony may or may not affirm the perceived tonic, an emerging or apparently established structure may give way to a disruptive event interrupting structural process. In Vaughan Williams’s music such mobile strategies are commonplace.

Analysis has enabled a sustained engagement with the composer’s music. Given the inclusion of this composer in relevant historical and contextual studies, and that at least some of the music enjoys frequent performance and recording, it is perhaps incongruous that the repertoire discussed here has generally received little analytical attention. Such a state of affairs has been previously observed, and while there have been some recent analytical studies, many are still content to consider early twentieth-century British music without recourse to detailed exegesis of the works under discussion. It would be wrong to criticise studies in cultural history for this. Such an approach is clearly different from, and often complementary to, musicological perspectives. Analysis can, however, usefully serve to refute propositions driven more by political ideology than a desire for historical accuracy such as the following:

The actual emancipation of our national music from bondage to the continent, the potential foundation of an English national school of composition, was the work of two composers, Ralph Vaughan Williams and Gustav Holst.²

This assertion of independence does not allow for the extensive influence of continental music on British composers, including Holst and Vaughan Williams. Analysis in the preceding chapter revealed Vaughan Williams's symphonic music to be in dialogue with structural procedures common to many European works composed in the late nineteenth and early twentieth centuries.

Howes's celebration of English 'emancipation' is part of a tradition of writing about culture, through which this perceived independence is celebrated. Most recently, this has been continued by Simon Heffer, Roger Scruton and Peter Ackroyd.³ Before these recent studies, Christopher Norris warned against not considering the ideological and cultural work of English music. For example, the socialism of Vaughan Williams and Holst is not often discussed, in favour of establishing 'their credentials as authentically native figures':

And so there develops that powerful mythology of Englishness, a sense of deep-laid cultural character and destiny somehow manifest in musical form. As always, the result of this hegemonic drive is to repress or to marginalise any sense of the conflicts, the divided loyalties and class-affiliations that affect a composer's work. Thus music becomes a most effective means of preserving tradition - one particular tradition - against any threat from social forces beyond its power to contain or control.⁴

Norris, and the other contributors to his collection of essays, seek to locate music firmly in social, cultural and political contexts. Such discourses can benefit from interaction with music analysis. Once again, the idea that Vaughan Williams's music is independent of 'foreign' influence can be challenged, not only through appeal to context, but also through detailed study of the scores, where such influences are readily apparent. The 'breakthrough' sonata deformation was not invented by Vaughan Williams in his *A Sea Symphony*. It has precedents in Mahler's first symphony and Strauss's *Don Juan*, for example. This adds a quite different

perspective from that which locates the same work in a tradition of English oratorios. Comparisons of this kind disrupt the co-option of Vaughan Williams to the agenda discussed above, and music becomes much less effective at preserving this particular tradition.

But it is not only in the realms of symphonic writing and structural strategy that Vaughan Williams's music can be understood in wider contexts on the basis of analytical study. The influence of English Tudor music and folksong on the composer's harmonic and melodic style is often noted. The truth of this statement is not disputed. The 'Englishness' of a work such as the *Tallis Fantasia* is evident from the choice of form (linked by Kennedy to Elizabethan precedent), the main theme, and folk-song influenced melody. However, this work also features the 'characteristic progressions' noted by Pople, and discussed above in Chapter Three. In discussion of the *Tallis Fantasia*, Kennedy states:

Best of all is the strong impression that the work is as old as time itself and yet as new as though it had been written yesterday.⁵

The 'old' is already accounted for, but where can the 'new' be located? At this point Kennedy has already praised harmonic devices in this work. But third relations are hardly an invention of Vaughan Williams's, a point demonstrated in the discussion of Neo-Riemannian Theory and chromatic transformations in nineteenth-century romantic music.

Given the identification of precedents, one might question whether such progressions can really be regarded as 'characteristic' of Vaughan Williams. The striking effect of hexatonic polar relationships has been discussed. Ex. 6.1 highlights one such progression in the *Tallis Fantasia*. But the same progression, a semitone lower, can be found in a work such as Schubert's Mass in E \flat major (Ex. 6.2). The musical contexts of the two progressions mark their differences. In this particular

case, Schubert's progression from the tonic to the flattened submediant minor, although striking, is later followed by the return of functional harmony at the end of the phrase. Vaughan Williams's hexatonic pole does not lead to a return of functional harmony, but is one of a number of closely juxtaposed triadic jumps. Such a comparison suggests that earlier precedents can be found not only for the 'English' elements like folksong, but those chord progressions that many commentators infer are 'new'. At the same time, while the implicit claim of originality is problematised, the treatment of those progressions is different from earlier examples such as the Schubert extract.

Analytical perspectives enable the comparison of compositions. But the survey of literature on Vaughan Williams in Chapter One shows that a wider range of contexts have been suggested in relation to the composer's music. The variety of relationships between Vaughan Williams's music and modernism was one contested issue. With or without analysis, a range of positions have been advanced. For example, *The Lark Ascending* is read as anti-modern pastoralism by Stradling and Hughes, and Trentmann.⁶ The work is seen as a reaction against either artistic modernism, or the lived experience of modernity, or both. It is also evident that *A Pastoral Symphony* was influenced by the composer's experience of the First World War, so anti-modern pastoralism is confronted by an extreme experience of modernity in this work. (This is reflected in the dissonant confrontation of musical materials during the piece, for example the E \flat material against a G tonic in the opening movement.) By contrast, the Fourth Symphony is generally recognised to bear the influence of musical modernism, although this is regarded as atypical of the composer's music. Each of these readings draws on different contexts for contrasting works, and I do not wish to contest any of them, except to comment that the Fourth

Symphony is only one of a number of works that features elements of musical modernism (these include *Job*, the concertos for violin, and for piano, *Sancta Civitas* and *Riders to the Sea*). Analysis can aid these readings of *The Lark Ascending* as reactive to modernity or modernism, *A Pastoral Symphony* as an attempt to come to terms with an aspect of modernity, and the Fourth Symphony as the composer's first symphonic essay in (modernist) 'absolute' music. However, analysis can also show that while these three works may have very different relationships with modernism, they also share musical materials, throwing up relationships that are not immediately apparent.

For example, pentatonicism is prominent in *The Lark Ascending*, a constituent element of the pastoral style. Pentatonic organisation in the solo part pervades the cadenza sections, often supported by a held chord in the orchestral strings as shown in Ex. 6.3. The opening of the second movement of *A Pastoral Symphony* also features a pentatonic melody. But here the pentatonic on C clashes with a held F minor chord (Ex. 5.6, element 1) - the pastoral melody is undermined by a disruptive element. In Ex. 4.7, from the Fourth Symphony, a distorted pentatonic scale is used. As previously discussed, this distortion creates tritone intervals in the scale. While the pentatonics in the first two examples are easy to find, the Fourth Symphony example might be overlooked. The three examples show how the tonally ambivalent pastoralism of a conventional pentatonic can be challenged and distorted. But they also reveal that similar musical materials are employed in radically contrasting contexts. A historical study or stylistic survey may seek to emphasise the differences between these three works. Vaughan Williams's informal remark about the Fourth Symphony that 'I don't know whether I like it, but it's what I meant', is generally taken to mean that the composer was deliberately adopting a 'foreign' musical

language for this work.⁷ One can point to the strained lyricism of the second subject as evidence of an opposition between dissonant modernism and modal melody. But the third subject also draws on folk-derived material in its use of a distorted pentatonic scale. While the differences between *The Lark Ascending*, *A Pastoral Symphony* and the Fourth Symphony are obvious, the similarities can be uncovered through close reading. Rather than being one work in an ‘other’ musical language, the Fourth Symphony could be regarded as a part of Vaughan Williams’s musical language, one which is multifaceted, constituting more than pastoralism. Indeed, one might reflect that several of the symphonies problematise the pastoral discourse through a range of techniques: confrontation in the *Pastoral*, dissonance in the Fourth, juxtaposition in the Sixth. All three devices are revisited in the Ninth Symphony.

In light of the main part of this study, it is possible to suggest that analysis can become a complementary methodology to historical approaches, and make some preliminary points of contact between them. Firstly, the independence of ‘Englishness’ has been challenged, particularly on the basis of analytical investigation of symphonic structural procedures, and ‘characteristic’ harmonic progressions. Secondly, a clear distinction of an anti-modern pastoralism from occasional modernist forays has been problematised. These two points illustrate that it is beneficial to bring contextual and analytical approaches into contact. There have been cultural historical studies and musicological ‘life-and-works’ surveys of this composer and his music. Theoretically engaged analysis complements these historical and contextual approaches, and enables a deeper understanding of Vaughan Williams’s music.

ENDNOTES

¹ However, a significant publication in this field is Deborah Mawer, *Darius Milhaud: Modality and Structure in Music of the 1920s* (Aldershot: Scolar Press, 1997).

² Frank Howes, *The English Musical Renaissance* (London: Secker & Warburg, 1966), p. 230.

³ Simon Heffer, *Vaughan Williams* (London: Phoenix, 2001); Roger Scruton, *England: An Elegy* (London: Pimlico, 2001); Peter Ackroyd, *Albion: The Origins of the English Imagination* (London: Chatto & Windus, 2002).

⁴ Christopher Norris, 'Introduction' in Christopher Norris, ed., *Music and the Politics of Culture* (London: Lawrence & Wishart, 1989), pp. 12-13.

⁵ Michael Kennedy, *The Works of Ralph Vaughan Williams*, 2nd edn (Oxford: Clarendon Press, 1980), p. 126.

⁶ Robert Stradling and Meirion Hughes, *The English Musical Renaissance 1860-1940: Construction and Deconstruction* (London: Routledge, 1993); Frank Trentmann, 'Civilization and Its Discontents: English Neo-Romanticism and the Transformation of Anti-Modernism in Twentieth-Century Western Culture', *Journal of Contemporary History* 29 (1994), pp. 583-625.

⁷ Kennedy, *The Works*, p. 246.

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**Harmony, Tonality and Structure in Vaughan Williams's
Music**

Volume 2

David Manning

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Ex. 2.1: From Felix Salzer, *Structural Hearing: Tonal Coherence in Music* (New York: Dover, 1982), Vol. 2, Ex. 331.

Moderato

The image displays three systems of musical notation for a piano piece in 4/4 time, key of D major. The first system is labeled 'bar 6.3' and shows a piano introduction with a treble and bass staff. The second system, labeled 'a', shows a piano introduction with a treble and bass staff, with harmonic analysis labels 'I', 'CS', 'I⁶', 'CS', 'V', and 'I' below the bass staff. The third system, labeled 'b', shows a piano introduction with a treble and bass staff, with harmonic analysis labels 'I', 'CS', 'I⁶', 'CS', 'V', and 'I' below the bass staff. The analysis labels are connected to specific notes in the music by lines.

bar 6.3

a

b

I CS I⁶ CS V I

I CS I⁶ CS V I

Ex. 2.2: Fifth Symphony, First Movement, 'Preludio', bars 4.14-6a.13.

The image displays a musical score for the 'Preludio' section of the Fifth Symphony, First Movement, covering bars 4.14 to 6a.13. The score is written for piano and features three systems of staves.

System 1 (Bars 4.14-4.15): The first system shows the beginning of the section. The key signature is B-flat major (two flats). The time signature is 4/4. The first staff (treble clef) contains a melodic line with a long note in bar 4.14 and a half note in bar 4.15. The second staff (bass clef) contains a corresponding melodic line. The third staff (piano accompaniment) features a rhythmic pattern of eighth notes. The dynamic marking *pp* (pianissimo) is indicated in bar 4.14. The section number 5.1 is marked at the beginning of bar 4.15.

System 2 (Bars 5.1-5.2): The second system continues the melodic and harmonic development. The first staff (treble clef) shows a melodic line with a long note in bar 5.1 and a half note in bar 5.2. The second staff (bass clef) contains a corresponding melodic line. The third staff (piano accompaniment) features a rhythmic pattern of eighth notes. The dynamic marking *p* (piano) is indicated in bar 5.1.

System 3 (Bars 6a.1-6a.13): The third system shows the continuation of the section. The key signature changes to A major (three sharps). The time signature changes to 3/4. The first staff (treble clef) contains a melodic line with a long note in bar 6a.1 and a half note in bar 6a.2. The second staff (bass clef) contains a corresponding melodic line. The third staff (piano accompaniment) features a rhythmic pattern of eighth notes. The section number 5.3 is marked at the beginning of bar 6a.1.

(Ex. 2.2 continued)

The musical score is divided into two systems, each containing two grand staves (treble and bass clef). The key signature is D major (two sharps). The first system includes measures 5.7 and 6.1. The second system includes measure 6.4. The notation includes various musical symbols such as notes, rests, slurs, and dynamic markings.

System 1:

- Staff 1 (Treble):** Measures 5.7 and 6.1. The melody consists of quarter and eighth notes, with a slur over measures 5.7 and 6.1.
- Staff 2 (Bass):** Measures 5.7 and 6.1. The bass line features a series of eighth notes, with a slur over measures 5.7 and 6.1.
- Staff 3 (Treble):** Measures 5.7 and 6.1. The melody consists of quarter and eighth notes, with a slur over measures 5.7 and 6.1.
- Staff 4 (Bass):** Measures 5.7 and 6.1. The bass line features a series of eighth notes, with a slur over measures 5.7 and 6.1.

System 2:

- Staff 1 (Treble):** Measure 6.4. The melody consists of quarter and eighth notes, with a slur over measures 6.4 and 6.5.
- Staff 2 (Bass):** Measure 6.4. The bass line features a series of eighth notes, with a slur over measures 6.4 and 6.5.
- Staff 3 (Treble):** Measure 6.4. The melody consists of quarter and eighth notes, with a slur over measures 6.4 and 6.5.
- Staff 4 (Bass):** Measure 6.4. The bass line features a series of eighth notes, with a slur over measures 6.4 and 6.5.

(Ex. 2.2 continued)

The first system of the musical score consists of three staves. The top staff is a single treble clef with a key signature of one sharp (F#). The middle staff is a grand staff with a treble clef and a bass clef, both with a key signature of one sharp. The bottom staff is a grand staff with a treble clef and a bass clef, both with a key signature of one sharp. The music features various melodic lines, including a long, flowing line in the top staff and a more rhythmic, eighth-note line in the middle staff. The bottom staff contains a complex, multi-measure passage with many beamed eighth notes. The system is labeled with '6.8' in the bottom left and '6a.1' in the bottom right.

The second system of the musical score consists of three staves. The top staff is a single treble clef with a key signature of one sharp (F#). The middle staff is a grand staff with a treble clef and a bass clef, both with a key signature of one sharp. The bottom staff is a grand staff with a treble clef and a bass clef, both with a key signature of one sharp. The music continues with melodic lines, including a long, flowing line in the top staff and a more rhythmic, eighth-note line in the middle staff. The bottom staff contains a complex, multi-measure passage with many beamed eighth notes. The system is labeled with '6a.2' in the bottom left.

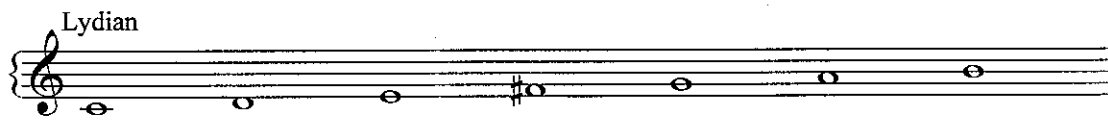
(Ex. 2.2 continued)

First system of musical notation (measures 1-4). The system consists of four staves. The top two staves are grand staves (treble and bass clefs) with a key signature of one sharp (F#). The bottom two staves are grand staves (treble and bass clefs) with a key signature of one flat (Bb). The notation includes various musical symbols such as notes, rests, and slurs. The first measure contains a whole note in the top staff and a whole note in the bottom staff. The second measure contains a whole note in the top staff and a whole note in the bottom staff. The third measure contains a whole note in the top staff and a whole note in the bottom staff. The fourth measure contains a whole note in the top staff and a whole note in the bottom staff. The label "6a.6" is present in the bottom left corner of the system.

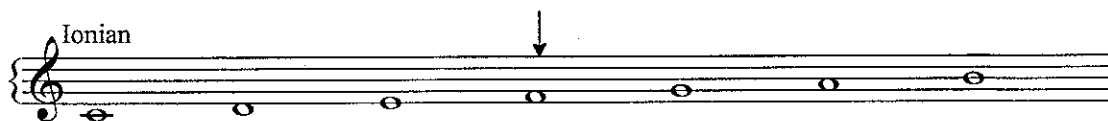
Second system of musical notation (measures 5-8). The system consists of four staves. The top two staves are grand staves (treble and bass clefs) with a key signature of one sharp (F#). The bottom two staves are grand staves (treble and bass clefs) with a key signature of one flat (Bb). The notation includes various musical symbols such as notes, rests, and slurs. The fifth measure contains a whole note in the top staff and a whole note in the bottom staff. The sixth measure contains a whole note in the top staff and a whole note in the bottom staff. The seventh measure contains a whole note in the top staff and a whole note in the bottom staff. The eighth measure contains a whole note in the top staff and a whole note in the bottom staff.

Ex. 2.3: The Modal Scales


Lydian




Ionian




Mixolydian




Dorian




Aeolian



Phrygian



Locrian



Ex. 2.4: *Five Variants of 'Dives and Lazarus'*, Variant I, bars C.15-D.9.

(Adagio ♩=68)

C.15

D.1

D.6

Ex. 2.5: *Hodie*, No. 5, 'Choral', 'The Blessed Son of God', bars 1-19.

The musical score is presented in three systems, each containing a vocal line and a piano accompaniment. The key signature is B-flat major (two flats) and the time signature is 3/4. The piano part features a steady eighth-note accompaniment in the left hand and chords in the right hand.

System 1 (Bars 1-5): The vocal line begins with a half note G4, followed by a half note A4, and then a half note Bb4. The piano part starts with a half note G3 in the left hand and a half note Bb3 in the right hand.

System 2 (Bars 6-10): The vocal line continues with a half note C5, followed by a half note D5, and then a half note E5. The piano part continues with a half note C4 in the left hand and a half note D4 in the right hand.

System 3 (Bars 11-15): The vocal line continues with a half note F5, followed by a half note G5, and then a half note A5. The piano part continues with a half note E4 in the left hand and a half note F4 in the right hand.

System 4 (Bars 16-19): The vocal line continues with a half note Bb5, followed by a half note C6, and then a half note D6. The piano part continues with a half note G4 in the left hand and a half note A4 in the right hand.

Annotations in the score include "bars: *p dolce*" and "1" in the first system, and "6" and "12" in the second and third systems respectively.

(Ex. 2.5 continued)

The musical score is written for piano and consists of two systems. The first system contains two staves. The treble staff features a melodic line with eighth and sixteenth notes, some beamed together, and slurs. The bass staff provides a supporting line with similar rhythmic values. The second system begins at measure 16, indicated by the number '16' in the bass staff. It also consists of two staves. The treble staff continues the melodic development, while the bass staff provides harmonic support. A crescendo hairpin is visible in the second system, spanning across measures. The key signature has one flat (B-flat), and the time signature is common time.

Ex. 2.6 has been removed for copyright reasons

Ex. 2.7: Tallis *Fantasia*, main theme, bars A.3-B.3.

The image displays a musical score for the main theme of Tallis's *Fantasia*, specifically bars A.3 through B.3. The score is written for a four-part setting, with two staves for the upper voices (Soprano and Alto) and two staves for the lower voices (Tenor and Bass). The key signature is one flat (B-flat major or D minor), and the time signature is 6/8.

The score is divided into three systems, each containing two staves. The first system (bars A.3 to A.7) features a melodic line in the Soprano part and a supporting line in the Alto part. The second system (bars A.8 to A.12) continues the melodic development. The third system (bars B.1 to B.3) shows the final bars of the main theme, with the Soprano part ending on a long note.

Key musical features include:

- Bar A.3:** The Soprano part begins with a melodic phrase, and the Alto part provides harmonic support.
- Bar A.8:** The Soprano part has a melodic line, and the Alto part has a supporting line.
- Bar B.1:** The Soprano part ends with a long note, and the Alto part has a supporting line.

The score is marked with "A.3", "A.8", and "B.1" to indicate the specific bars. The notation includes various musical symbols such as notes, rests, and accidentals.

Ex. 2.8: *The Lark Ascending*: main themes.

Cadenza material:



A Section:



B Section:



Ex. 2.9: *The Lark Ascending*: cadenza introductions.

Introduction 1, bars 1-3.

Introduction 1, bars 1-3. The score is in 6/8 time. The treble clef staff contains a melody of eighth notes, starting on G4 and ascending to A5. The bass clef staff contains a supporting accompaniment of eighth notes, starting on G3 and ascending to A4. The dynamic marking *ppp* is present in the bass staff.

Introduction 2, bars F.4-7.

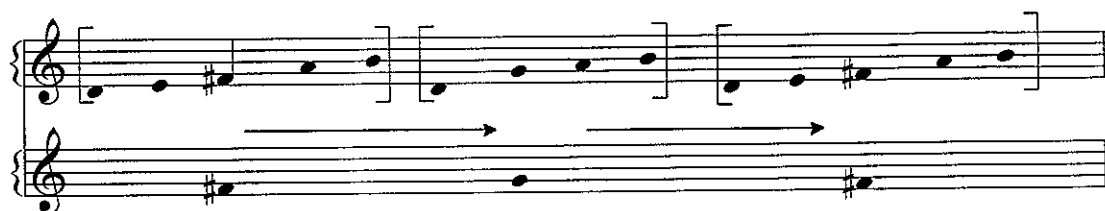
Introduction 2, bars F.4-7. The score is in 6/8 time. The treble clef staff contains a melody of eighth notes, starting on G4 and ascending to A5. The bass clef staff contains a supporting accompaniment of eighth notes, starting on G3 and ascending to A4. The dynamic marking *ppp* is present in the bass staff.

Introduction 3, Y.1-6.

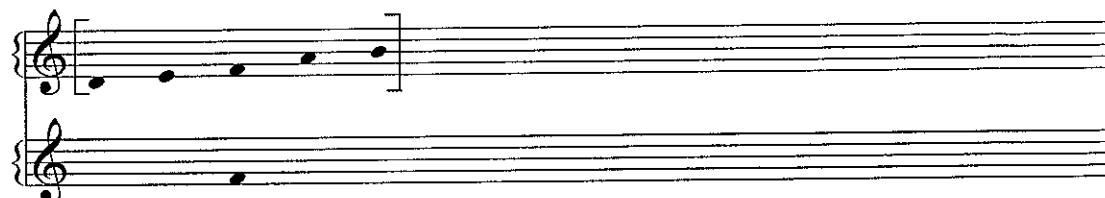
Introduction 3, Y.1-6. The score is in 6/8 time. The treble clef staff contains a melody of eighth notes, starting on G4 and ascending to A5. The bass clef staff contains a supporting accompaniment of eighth notes, starting on G3 and ascending to A4. The dynamic marking *ppp* is present in the bass staff.

Ex. 2.10: *The Lark Ascending*: Cadenza Pitch Resources.

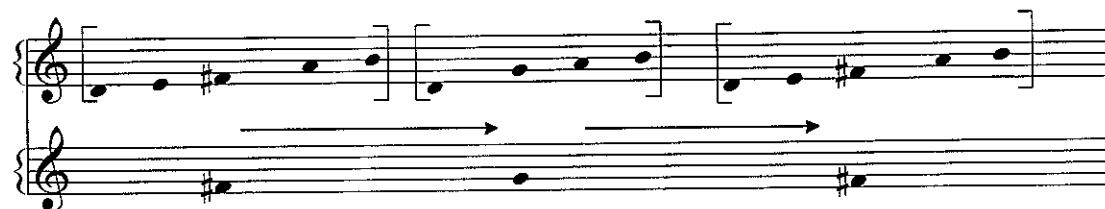
Cadenza 1



Cadenza 2



Cadenza 3



Ex. 2.11: *The Lark Ascending*: D major elements in the A section.

(a) bars 5-6, orchestra only. Upper voice emphasises D major.



(b) bars A.7-9, orchestra only. Upper voice emphasises D major.



Ex. 3.1: *On Wenlock Edge*: 'From far, from eve and morning', bars 1-4.

VLE Score: 3 6 6

Harmonic Reduction

Cycle: O2

Andantino

Voice

misterioso

pp una corda

3

O2

From far, from eve and morn - ing

Ex. 3.2: *O Vos Omnes*, bars B.10-C.7.

VLE Score: 5 2 5 1 1 6 3

Harmonic reduction

Cycle: O1 H2 H2 O1

Choir

bar B.10 C.1 3

2 3 3 3 6 4 5

O1 O3

C.4

4 4 6 3 3 6

O1 O1

C.6

Ex. 3.3: Sixth Symphony, first movement, bars 14.4-16.4.

VLE scores: 2

Cycles: 02
(♩=♩.) Tranquillo [♩.=56]

bar 14.4 *p*

15.1 *p*

cantabile

15.2

5 1 5 6 3 2
H3 H0

15.5

2 2 2 2 6 3 3 3 1
O2 O2 O2 O2 H3

15.8

(Ex. 3.3 continued)

16.1

16.3

3 3 2 6 3

H3 O1

2 2 2

H0 O2 O2

3

p.

p.

The musical score is for a piano piece in A major (three sharps). It consists of two systems of staves. The first system contains measures 16.1 and 16.2. The second system contains measures 16.3 and 16.4. Fingerings are indicated by numbers 1-5 above notes. Dynamics include piano (p.) and piano fortissimo (p.).

Ex. 3.4: *Mass in G Minor, 'Gloria', bars 1-5.*

VLE Score:

Cycle:
Lento

Choir 1

Solo

Glo - ri - a in ex - cel - sis De - o.

pp Tutti

Et in ter - ra

Choir 2

pp

3 6 3 3 5 4 5 3 4 4 4

O2

pax ho - mi - ni - bus bon - ae vo - lun - ta - tis.

Ex. 3.5: *A Sea Symphony*, first movement, 'A Song for all seas, all ships', bars 1-8.

Andante maestoso ♩=59

Choir

ff Be - hold, — the

Orchestra

ff

3

sea — it - self

ff brillante

3

And on its

8va

f cantabile largamente

3

Ex. 3.6: Complete Modal Scale (CMS)**Ex. 3.7(a): Chromatic Scale****Ex. 3.7(b): Chromatic Scale****Ex. 3.8 B♭ minor to D major: an enharmonic impossibility.**

Ex. 3.9: Sixth Symphony, first movement, bars 1-6.

Allegro $\text{♩} = 100$
8va

ff allarg. a tempo

p cresc.

Ex. 3.10: Sixth Symphony, first movement, bars 18.1-7, and second movement, bars 1-2.

8va

f ff

(8)

ff

Ex. 3.11: *Vision of Aeroplanes*, bars 11.4-12.6

Piu Lento (♩=92)

S.A. *p* Andwhenthey went, I heard the *f* noise

T.B.

Org. 11.4 *p*

of their wings, *ff* like the noise of

11.8 12.1

great wat ters, as the voice of the Al-

12.2

(Ex. 3.11 continued)

musical score for Ex. 3.11 continued. The score is in G major (one sharp) and 4/4 time. It consists of three systems. The first system shows a vocal line with the lyrics "might" and "ty" and a piano accompaniment. The second system continues the piano accompaniment, marked with a forte (*ff*) dynamic. The third system shows the piano accompaniment continuing with various chords and melodic lines.

Ex. 3.12: *Job*, Scene VII, bars Rr.5-20.

musical score for Ex. 3.12: *Job*, Scene VII, bars Rr.5-20. The score is in G major (one sharp) and 3/4 time. It consists of three systems. The first system shows a VLE (Violin, Viola, and Cello) line with the instruction "Cycles: All H3 until Rr.19" and a piano accompaniment. The second system shows the VLE line with a forte (*ff*) dynamic and the piano accompaniment. The third system shows the VLE line with a piano (*ppp*) dynamic and the piano accompaniment. The score includes various musical notations such as notes, rests, and dynamic markings.

(Ex. 3.12 continued)

2

Rr.14

pp

1 3 5

O1

Rr.17

ppp

Detailed description: This musical score continues from Ex. 3.12. It consists of two systems of staves. The first system (measures 14-15) features a treble staff with a single chord marked '2' and a piano staff with a melodic line containing triplets and a dynamic marking of *pp*. The second system (measures 16-17) features a treble staff with chords marked '1', '3', and '5', and a piano staff with a melodic line containing triplets and a dynamic marking of *ppp*. The piano staff in measure 17 also includes a marking 'O1'.

Ex. 3.13: *The Souls of the Righteous*, bars 14-28.

VLE Score: 3 4

Harmonic reduction

Cycles: All O1

Soloists

Baritone Solo (*freely*)

p For though they be

very slow

Chorus

bar 14

ppp But they are in peace,

2 2 4

Tenor Solo (*freely*)

p pun-ished in the sight of men, yet is their hope full of

18

in peace, they are in peace,

4 6

Treble Solo (*freely*)

p im - mor - ta - li - ty; and hav - ing

22

They are in peace, in

(Ex. 3.13 continued)

been a lit-tle has tised, they shall be grea - tly re war - ded;

peace. they shall be grea - tly re - war - ded;

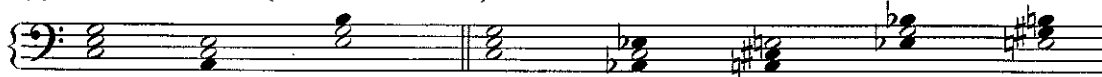
p *f*

3 3 3 3 3 3 3 3

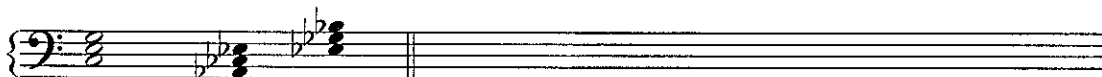
The musical score is for a vocal and piano piece. It is in the key of D major (two sharps) and 4/4 time. The vocal line (soprano) has lyrics: "been a lit-tle has tised, they shall be grea - tly re war - ded;". The piano accompaniment (grand staff) has lyrics: "peace. they shall be grea - tly re - war - ded;". The piano part includes dynamic markings *p* (piano) and *f* (forte). There are several triplet markings (3) over the notes in both parts. The score is divided into measures by bar lines.

Ex. 3.14: Mediant relationships in C major. From David Kopp, *Chromatic Transformations in Nineteenth-Century Music* (Cambridge: Cambridge University Press, 2002), pp. 10-11.

(a) Relative mediants (two common tones) (b) Chromatic mediants (one common tone)



(c) Disjunct mediants (no common tones)



Ex. 3.15: Voice Leading Efficiency Score Problem

Progressions from C major:

(a) where efficient voicing masks a semitonal voice leading path, and an equally parsimonious alternative.

'hidden' semitones:

equally parsimonious alternatives:

(b) where efficient voicing masks a semitonal voice leading path.

(c) where efficient voicing masks a smoother alternative.

(d) with an equally parsimonious alternative to efficient voicing.

Ex. 3.16: *A London Symphony*, second movement, bars 1-8.

Relationship of
durationally
emphasised
chords

VLE Scores: 2 2 2

Maximally
smooth
voicing of
the chords

VLE Scores: 6 6 2 6 6

Lento

Cor Anglais

Strings

ppp con sordini

p misterioso

The first system of the musical score shows the relationship of durationally emphasised chords and the maximally smooth voicing of the chords. The VLE scores for the first system are 2, 2, 2. The VLE scores for the second system are 6, 6, 2, 6, 6. The tempo is Lento. The Cor Anglais part is marked p misterioso. The Strings part is marked ppp con sordini.

(0) 2

(0) 6 6

The second system of the musical score shows the relationship of durationally emphasised chords and the maximally smooth voicing of the chords. The VLE scores for the second system are (0), 2. The VLE scores for the third system are (0), 6, 6. The tempo is Lento. The Cor Anglais part is marked p misterioso. The Strings part is marked ppp con sordini.

Ex. 3.17: 'Cloud Capp'd Towers' from *Three Shakespeare Songs*, bars 1-4.

VLE Scores: 4 1 2 5

Harmonic Summary

Cycles: O1 H3 H3 O3

Lento

Soprano

Alto

Tenor

Bass

pp The cloud-capp'd towers, the gor-geous pal-a-ces,—

pp The cloud-capp'd towers, the gor-geous pal-a-ces,—

The musical score is presented in a standard format with five staves. The top staff shows VLE Scores (4, 1, 2, 5) and a Harmonic Summary. Below this, the Cycles are listed as O1, H3, H3, and O3. The tempo is marked 'Lento'. The vocal parts are for Soprano, Alto, Tenor, and Bass. The lyrics are 'The cloud-capp'd towers, the gor-geous pal-a-ces,—'. The Soprano and Tenor parts begin with a piano (*pp*) dynamic. The Alto and Bass parts also begin with a piano (*pp*) dynamic. The score is in 4/4 time and the key signature has two sharps (F# and C#).

Exs. 3.18 and 3.19 have been removed for copyright reasons

Ex. 3.20: *O Vos Omnes*: analysis of bars G.1-8.

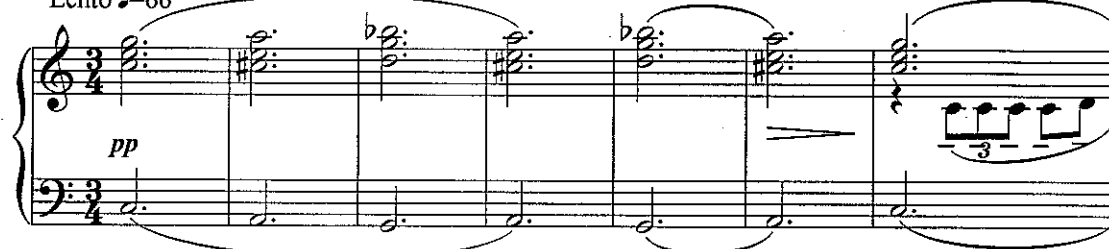
VLE Scores: 3 3 1 3 4 6 4



Cycles: O1 H2 O3 O3 O1


Ex. 4.1: Fifth Symphony, third movement, 'Romanza', bars 1-A.1.

Lento ♩=66



pp

In C: I VI v VI etc.
In A: vii I



Ex. 4.2: Lydian Minor Scale



Ex. 4.3: *Sancta Civitas*, bars 4.2-6.

Tempo I ♩=76

Baritone

And I heard _____ as it were the voice of a

Distant choir

Al - le - lu - ia, _____

Semi-chorus

great. _____

Full chorus

A - - - - -

Orchestra

A - - - - - men, _____

(Ex. 4.3 continued)

great mul-ti-tude and as the voice of ma-ny wa-ters

al-le-lu - - ia.

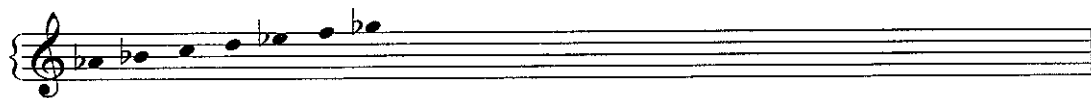
Al-le-lu - - ia, Al-le

- men, A - - men.

A - - - men.

The musical score is written for voice and piano. The key signature is one sharp (F#). The tempo is marked with a '3' above the first measure. The lyrics are: 'great mul-ti-tude and as the voice of ma-ny wa-ters', 'al-le-lu - - ia.', 'Al-le-lu - - ia, Al-le', '- men, A - - men.', and 'A - - - men.'. The piano accompaniment features a steady eighth-note bass line and a more complex treble line with chords and arpeggios.

Ex. 4.4: A compound minor scale



Ex. 4.5: *Sancta Civitas*, bars 2a.1-5.

Ex. 4.5 shows musical notation for bars 2a.1-5 of *Sancta Civitas*. The score is in 3/4 time and features three staves: Distant choir, Distant trumpet, and Orchestra.

The Distant choir part (top staff) has the lyrics: "Al-le - lu - ia, sal - va - tion, and glo - ry,". The Distant trumpet part (middle staff) and the Orchestra part (bottom staff) provide accompaniment. The Orchestra part features a series of dotted half notes in the bass line, connected by a slur.

Ex. 4.6: Fourth Symphony, first movement, bars 5.1-8.

Ex. 4.6 shows musical notation for bars 5.1-8 of the first movement of the Fourth Symphony. The score is in 3/4 time and features three staves: Piano (top), Violin (middle), and Viola (bottom).

The Piano part (top staff) begins with a forte (*ff*) dynamic and includes the instruction *f appass. sost.* (forcefully, appassionato, sostenuto). The Violin part (middle staff) includes the instruction *sim.* (simile). The Viola part (bottom staff) features a triplet of eighth notes in the first measure of bar 5.1.

Ex. 4.7: Fourth Symphony, first movement, bars 8.1-8.

The musical score is written for piano and violin. It is in 6/4 time and the key of D major (two sharps). The score consists of three systems, each with a piano staff and a violin staff.

System 1: The piano staff begins with a fortissimo (*ff*) dynamic. The violin staff begins with a fortissimo appassionato (*f appassion.*) dynamic. The piano staff has a *simile* marking under the second measure.

System 2: The piano staff begins with a mezzo-forte (*mf*) dynamic. The violin staff begins with a mezzo-forte (*mf*) dynamic.

System 3: The piano staff begins with a mezzo-forte (*mf*) dynamic. The violin staff begins with a mezzo-forte (*mf*) dynamic.

Ex. 4.8: *A Pastoral Symphony*, bars 1-B.9.

Molto moderato ♩=80

p

4

7

10

cantabile

pp

A.1

A.3

(Ex. 4.8 continued)

The musical score continues Example 4.8, consisting of four systems of piano music. Each system is written for a grand piano with a treble and bass staff.

- System 1:** Labeled *A.7 p*. It begins with a treble staff containing a series of beamed sixteenth notes and a bass staff with a triplet of eighth notes. The key signature has one flat (B-flat).
- System 2:** Labeled *A.10* and *B.1*. It features a treble staff with a triplet of eighth notes and a bass staff with a triplet of eighth notes. The key signature changes to two flats (B-flat and E-flat).
- System 3:** Labeled *B.4* and *pp*. It shows a treble staff with a triplet of eighth notes and a bass staff with a triplet of eighth notes. The key signature remains two flats.
- System 4:** Labeled *B.7*. It features a treble staff with a triplet of eighth notes and a bass staff with a triplet of eighth notes. The key signature changes to three flats (B-flat, E-flat, and A-flat).

Ex. 4.9: Job: A Masque for Dancing, bars 1-A.10.Largo sostenuto $\text{♩} = 48$

The musical score is written for piano and consists of five systems of staves. The key signature has two flats (B-flat major), and the time signature is 4/4. The tempo is marked "Largo sostenuto" with a tempo indicator of a quarter note equal to 48 beats. The score includes various musical notations such as triplets, slurs, and dynamic markings like *p*, *ppp*, and *mp cantabile*. The systems are numbered 4, 7, 10, and 12 on the left side of the piano staff.

System 1 (Bar 1): *p sost.* (piano sostenuto). The piano staff begins with a triplet of eighth notes. The bass staff has a similar triplet pattern.

System 2 (Bar 4): The piano staff continues with a triplet of eighth notes. The bass staff has a similar triplet pattern.

System 3 (Bar 7): The piano staff begins with a triplet of eighth notes. The bass staff has a similar triplet pattern. The dynamic marking *ppp* (pianissimo) is present.

System 4 (Bar 10): The piano staff continues with a triplet of eighth notes. The bass staff has a similar triplet pattern.

System 5 (Bar 12): The piano staff begins with a triplet of eighth notes. The bass staff has a similar triplet pattern. The dynamic marking *mp cantabile* (mezzo-piano cantabile) is present.

(Ex. 4.9 continued)

(Ex. 4.9 continued)

14

A.1

This musical score continues from the previous example. It consists of two systems, each with a treble and bass staff. The key signature is one flat (B-flat). The first system (measures 14-15) features a treble staff with eighth-note triplets and a bass staff with quarter notes. The second system (measures 16-17) continues the treble staff with eighth-note triplets and the bass staff with quarter notes, marked with 'A.1' above the first measure of the system.

A.4

pp

A.7

The musical score for 'A.7' consists of two staves. The upper staff is in treble clef with a key signature of one flat (B-flat). It features a melodic line with a long slur spanning across the first three measures, ending with a fermata. The lower staff is in bass clef with a key signature of one flat. It contains a rhythmic accompaniment of eighth notes, grouped in pairs and slurs, with a final measure containing a whole note and a fermata.

Ex. 4.10: Fifth Symphony, third movement themes

Theme 1 (bars 1-1.1):

Lento $\text{♩} = 66$

pp

ppp

3

Theme 2 (bars 1.1-1.9):

Theme 3 (bars 2.4-7):

Ex. 4.11: Fifth Symphony, third movement, 'Romanza': white note dissonance.

1.4

Ex. 4.12: Fifth Symphony, third movement, 'Romanza': Continuity across phrase ending.

1.16

pp 2.1

Ex. 4.13: Fifth Symphony, third movement, 'Romanza', bars 11.1-21.

11.1 *pp*

11.6

11.12

11.17 *pp*

Ex. 4.14: *Sancta Civitas*, bars 35.6-37.3.

Adagio J=50 36

ppp Cello & Bass *ppp* Violin Solo *ppp*

*** TUTTI**
ppp parlando

And I saw a
ppp parlando
And I saw a
ppp parlando
And I saw a
ppp parlando
And I saw a

new heav'n and a new earth; for the first earth and the first heav'n were
new heav'n and a new earth; for the first earth and the first heav'n were
new heav'n and a new earth; for the first earth and the first heav'n were
new heav'n and a new earth; for the first earth and the first heav'n were

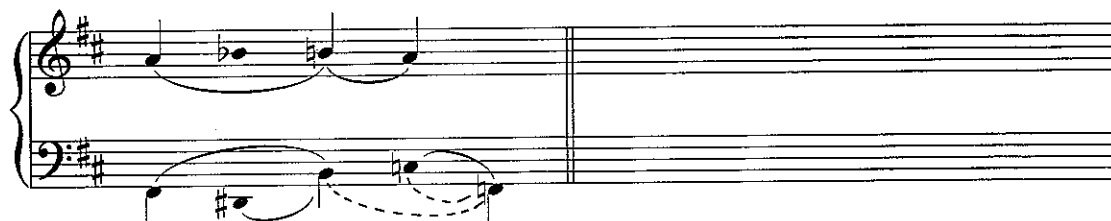
37

passed a - way; and there was no more sea.
passed a - way; and there was no more sea.
passed a - way; and there was no more sea.
passed a - way; and there was no more sea.

37

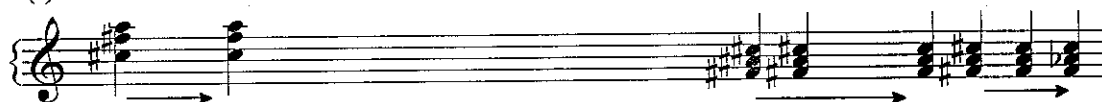
Ex. 4.15 has been removed for copyright reasons

Ex. 4.16: A Schenkerian approach to 'The Cloud Capp'd Towers', opening bars.



Ex. 4.17: Analysis of 'Cloud-Capp'd Towers'

(f) tonal failure



(e) downward chromatic chain



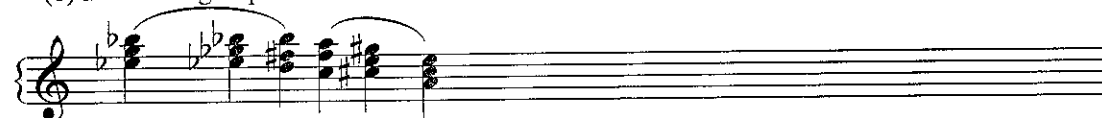
(d) whole-tone scale on A



(c) whole-tone scale on F#



(b) hexatonic groups



(a) harmonic reduction



Ex. 4.18: Sixth Symphony, fourth movement, bars 1-1.11.

(end of third movement) Fourth Movement: Epilogue
Moderato ♩=56

sempre pp e senza cresc.

2

5

8

1.1

(Ex. 4.18 continued)

1.2

The image shows a musical score for a three-part setting of 'The Rose Tree'. It consists of three staves: a treble staff at the top, a middle treble staff, and a bass staff at the bottom. The key signature has one flat (B-flat), and the time signature is 3/4. The music is written in a style typical of 19th-century vocal or instrumental settings. The first staff begins with a treble clef and a key signature of one flat. The second staff begins with a treble clef and a key signature of one flat. The third staff begins with a bass clef and a key signature of one flat. The music is divided into three measures. The first measure contains a single melodic line in the first staff. The second measure contains a single melodic line in the first staff. The third measure contains a single melodic line in the first staff. The second and third staves provide harmonic accompaniment. The second staff has a '1.2' marking below it. The third staff has a '1.2' marking below it. The music is written in a style typical of 19th-century vocal or instrumental settings.

A musical score for the song 'The Rose Tree'. It features a treble and bass staff. The treble staff has a key signature of one flat (B-flat) and a common time signature. The bass staff has a key signature of one flat (B-flat) and a common time signature. The melody is written in the treble staff, and the accompaniment is in the bass staff. The score includes a repeat sign and a double bar line. The lyrics 'The Rose Tree' are written below the bass staff.

1.8

The musical score for 'The Rose Tree' is presented in two systems. The first system consists of a treble clef staff with a key signature of one flat (B-flat) and a common time signature (C). The melody is written in a simple, folk-like style. The second system continues the melody, featuring a key signature change to two flats (B-flat and E-flat) and a common time signature (C). The melody is written in a simple, folk-like style. The score is labeled '1.8' in the bottom left corner.

A musical score for the song 'The Rose Tree'. The score is written for voice and piano. The voice part is on a single staff with a treble clef, key signature of one flat (B-flat), and a 2/4 time signature. The piano accompaniment is on two staves, with the right hand in treble clef and the left hand in bass clef. The key signature is one flat, and the time signature is 2/4. The score consists of two systems. The first system has a vocal line starting with a quarter note G4, followed by a half note A4, and a quarter note B4. The piano accompaniment starts with a quarter note G3, followed by a quarter note A3, and a quarter note B3. The second system has a vocal line starting with a quarter note G4, followed by a half note A4, and a quarter note B4. The piano accompaniment starts with a quarter note G3, followed by a quarter note A3, and a quarter note B3. The score ends with a double bar line.

Ex. 4.19: Sixth Symphony, fourth movement, analysis of bars 1-3.

(a) On F:



(b) On E:



Ex. 4.20: Sixth Symphony, fourth movement, bars 2.7-2.10.



Ex. 4.21: Sixth Symphony, fourth movement, bars 3.7-4.2.

Ex. 4.22: Sixth Symphony, fourth movement, bars 10.10-11.11.

Ex. 5.1: Fourth Symphony, first movement themes.

Theme 1(a), bars 1-7.

Theme 1(b), bar 1.2

Theme 2, bars 5.1-8.

Theme 3, bars 8.1-8.

ff

f appassion.

mf

mf

simile

Ex. 5.2: Fourth Symphony, 'Finale con epilogo fugato', bars 34.1-12.

Meno mosso (Tempo di No. 1)

34.1 *ff*

34.5

34.8 *ff*

34.11 *fff*

Ex. 5.3: Sixth Symphony, first movement themes.

Theme 1(a), bars 1-2.

8va

allarg. *a tempo*

Theme 1(b), bars 2.1-3.

f cantabile

(Ex. 5.3 continued)

Theme 2(a), bars 4.5-6.

Theme 2(b), bars 8.1-5.

Ex. 5.4: *A Pastoral Symphony*: first movement themes.

Element 1; opening texture

Element 2; Theme 1(a)

Element 3; Theme 1(b)

(Ex. 5.4 continued)

Element 4; End of first theme section cadence

bar B.4

Element 5; Bridge theme

bar B.8

Element 6; Second subject

bar D.1

Element 7; End of second theme section cadence

bar D.9

Element 8; Codetta theme

bar E.4

Ex. 5.5: Role of Scale Degrees in Element 2.

bar 4

Ex. 5.6: *A Pastoral Symphony*: second movement themes.

Element 1

Element 1, measures 1-4. The score is in 3/4 time, marked *pp*. The treble clef staff begins with a whole rest in measure 1, followed by a triplet of eighth notes (G4, A4, B4) in measure 2, and continues with a melodic line. The bass clef staff provides a harmonic accompaniment with sustained chords and moving lines. A slur groups measures 2 through 4.

Element 2

Element 2, measures 1-4. The score is in 3/4 time, marked *pp*. The treble clef staff features a continuous eighth-note melody. The bass clef staff has a sustained harmonic accompaniment. A slur groups measures 2 through 4.

Element 3

Element 3, measures 1-4. The score is in 3/4 time, marked *pp*. The treble clef staff begins with a whole rest in measure 1, followed by a melodic line. The bass clef staff features a sustained harmonic accompaniment with complex chordal textures. A slur groups measures 2 through 4.

Ex. 5.7: *A Pastoral Symphony*: fourth movement themes.

Element 1

bar 1 *tr*

pp *p* *pp*

The first system of music for Element 1 is in 3/4 time. The treble clef staff begins with a whole rest, followed by a triplet of eighth notes (G4, A4, B4) and then a series of eighth notes (C5, B4, A4, G4, F4, E4, D4, C4). The bass clef staff has a whole note chord (G2, B1) in the first measure, followed by a half note chord (G2, B1) and a whole note chord (G2, B1). The dynamics *pp*, *p*, and *pp* are marked under the first, second, and third measures respectively.

The second system of music for Element 1 continues the melody in the treble clef staff with eighth notes (D4, E4, F4, G4, A4, B4, C5, B4, A4, G4, F4, E4, D4, C4). The bass clef staff has a whole note chord (G2, B1) in the first measure, followed by a half note chord (G2, B1) and a whole note chord (G2, B1).

Element 2

A.4 *pp*

The first system of music for Element 2 is in 3/4 time. The treble clef staff has a whole note chord (G4, B4, D5) in the first measure, followed by a half note chord (G4, B4, D5) and a whole note chord (G4, B4, D5). The bass clef staff has a whole note chord (G2, B1) in the first measure, followed by a half note chord (G2, B1) and a whole note chord (G2, B1). The dynamics *pp* and A.4 are marked under the first measure.

The second system of music for Element 2 continues the melody in the treble clef staff with eighth notes (D5, C5, B4, A4, G4, F4, E4, D4, C4). The bass clef staff has a whole note chord (G2, B1) in the first measure, followed by a half note chord (G2, B1) and a whole note chord (G2, B1).

Ex. 5.8: *A London Symphony*, second movement themes.

Theme 1

bar 1 *ppp*

Theme 2

p misterioso
bar 5

Theme 3

A.13 *pp*

Theme 4

D.1 *p semplice*

Theme 5

F.1 *p sost.* *pp* *poco f* *p* *dim.*

Ex. 5.9: Suggestion of D \flat , bars A.5-10.

Ex. 5.9 is a musical score in 4/4 time, consisting of two systems of three measures each. The key signature has one flat (B-flat). The first system begins with a piano (*pp*) dynamic. The melody in the right hand features a series of eighth and quarter notes, while the left hand provides a harmonic accompaniment. The second system starts with a mezzo-forte (*p*) dynamic, followed by a piano (*pp*) and then a pianissimo (*ppp*) section. The melody continues with various note values and rests, and the left hand maintains a steady accompaniment.

Ex. 5.10: Suggestion of F, bars L.5-7.

Ex. 5.10 is a musical score in 4/4 time, consisting of two systems of three measures each. The key signature has one flat (B-flat). The first system features a piano (*p*) dynamic and includes triplet markings (3) over groups of notes in both hands. The second system continues the melodic and harmonic development, with a piano (*pp*) dynamic indicated in the final measure.

Ex. 5.11: Fifth Symphony, first movement: opening rotation.

Ex. 5.11 is a musical score in 4/4 time, consisting of two systems of three measures each. The key signature has one sharp (F-sharp). The first system begins with a piano (*p*) dynamic. The score is annotated with four elements: Element 1: pedal (pointing to the left hand), Element 2: 'horn-call' (pointing to the right hand), Element 3: 'soaring melody' (pointing to the right hand), and Element 4: fourth intervals (pointing to the right hand). The melody in the right hand is characterized by a series of ascending and descending intervals, while the left hand provides a steady accompaniment.

(Ex. 5.11 continued)

Element 5
mf cantabile

1.1



Element 6

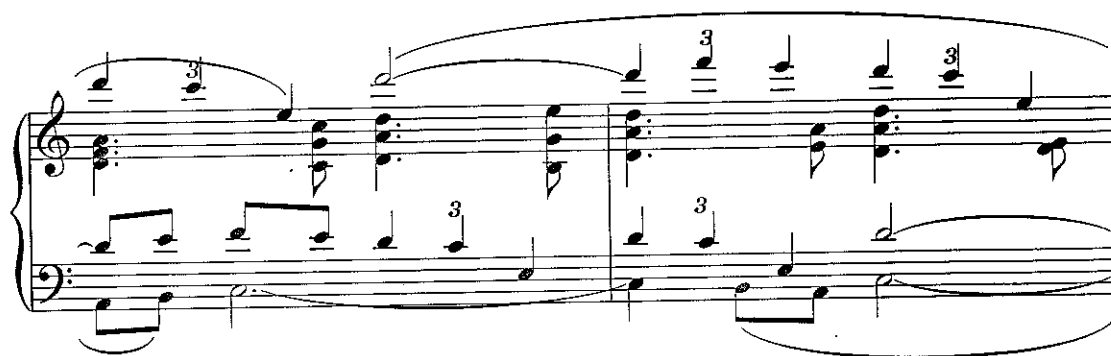
Element 5



3

3

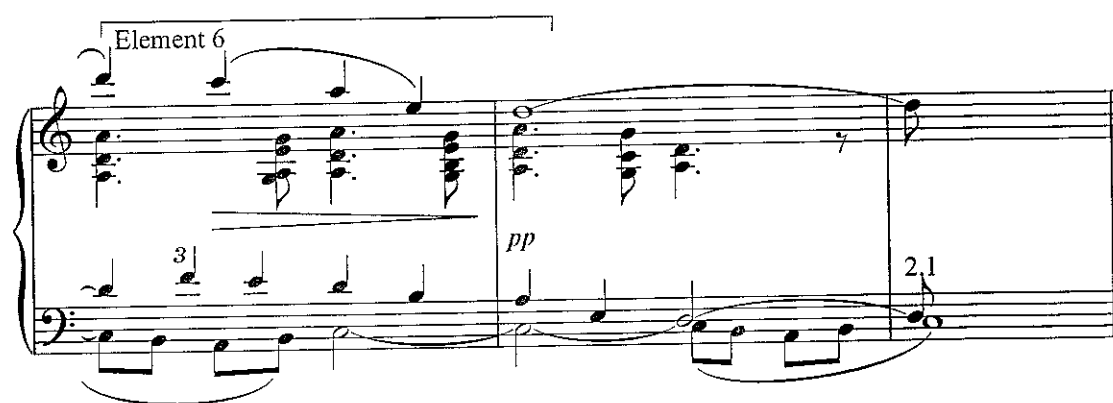
3



Element 6

pp

2.1



Ex. 5.12: Fifth Symphony, fourth movement, Passacaglia theme.

Ex. 5.13: Ninth Symphony, fourth movement themes, and relevant first movement themes.

Theme 1

bar 1

Theme 2

2.1

Theme 3

2.5

Theme 4

6.1

(Ex. 5.13 continued)

Relevant First Movement Themes:

First Movement, bar 2.1



Fourth Movement, bar 21.1



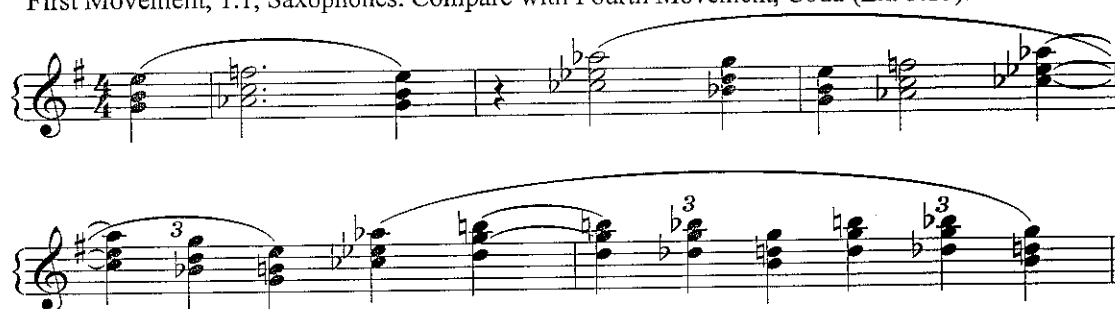
First Movement, bar 2



Fourth Movement, bar 22.1 (also compare Theme 4)



First Movement, 1.1, Saxophones. Compare with Fourth Movement, Coda (Ex. 5.15).



Ex. 5.14: Ninth Symphony, fourth movement climax, bars 28.1-29.5.



Ex. 5.15: Ninth symphony, fourth movement coda, bars 32.1-35.5.

The musical score for the coda of the fourth movement of Beethoven's Ninth Symphony, bars 32.1 to 35.5, is presented in five systems of piano and grand staff notation. The key signature is D major (two sharps) and the time signature is 4/4.

- System 1 (Bar 32.1):** The piano part begins with a fortissimo (*ff*) dynamic. The grand staff features complex chordal textures in the right hand and a more active bass line.
- System 2 (Bar 33.1):** The piano part is marked *marc.* (marcato). The grand staff continues with similar textures, showing a slight shift in the bass line.
- System 3 (Bar 34.1):** The piano part features a fortissimo (*fff*) dynamic with a harp glissando (+hp gliss.) indicated. The grand staff shows a transition from fortissimo to pianissimo (*pp*) in the right hand.
- System 4 (Bar 35.1):** The piano part begins with a fortissimo (*ff*) dynamic, followed by a pianissimo (*pp*) section. The grand staff shows a transition from fortissimo to pianissimo in the right hand.
- System 5 (Bar 35.5):** The piano part features a fortissimo (*fff*) dynamic, followed by a pianissimo (*pp*) section, and then a very pianissimo (*ppp*) section leading to *niente* (nothing).

fff

Do - mi - nus De - us Sa - ba - oth!

fff

Ex. 6.3: *The Lark Ascending*, bar 3.

The image shows a musical score for a violin solo and an orchestra. The violin part is written on a single staff with a treble clef, featuring a series of eighth and sixteenth notes, some beamed together, and a few slurs. The orchestra part is written on two staves (treble and bass clefs) and is mostly empty, with a few long horizontal lines indicating sustained notes or rests.

Figures 3.1 and 3.2 have been removed for copyright reasons

Figure 3.3: The Hyper-Octatonic System

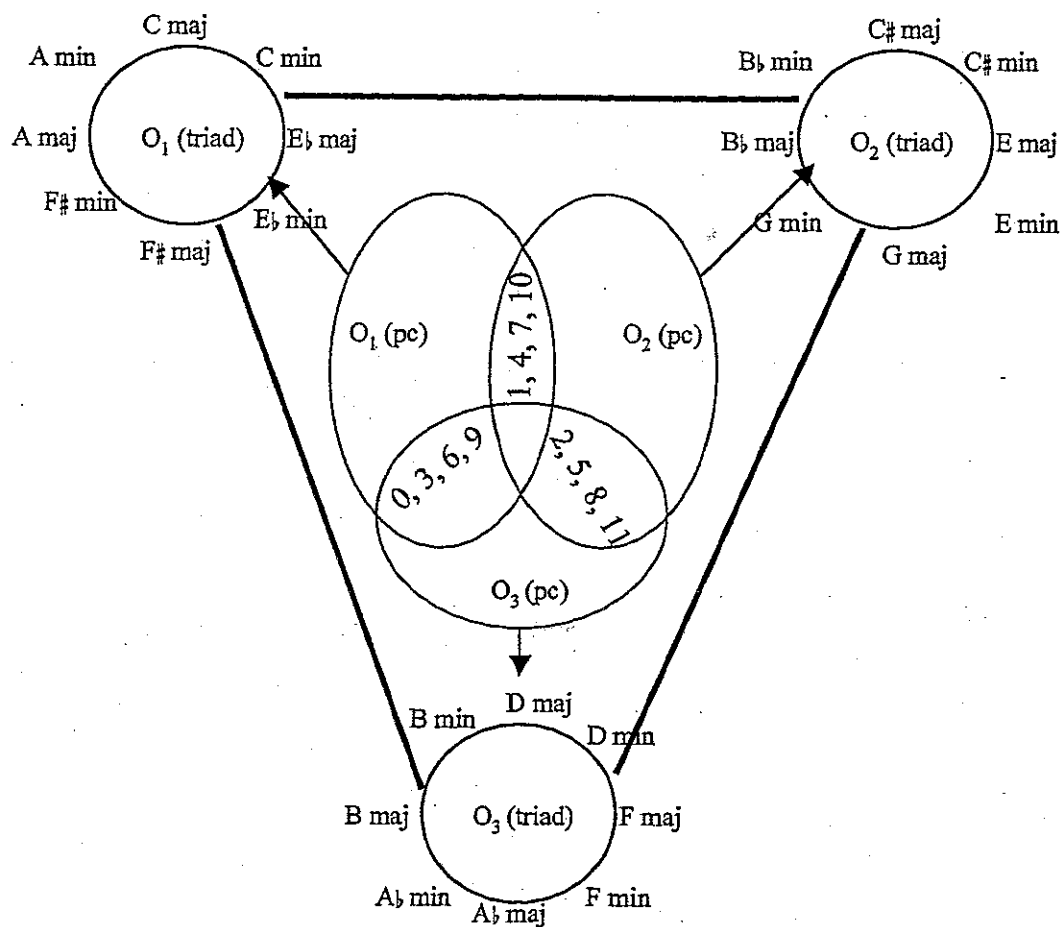
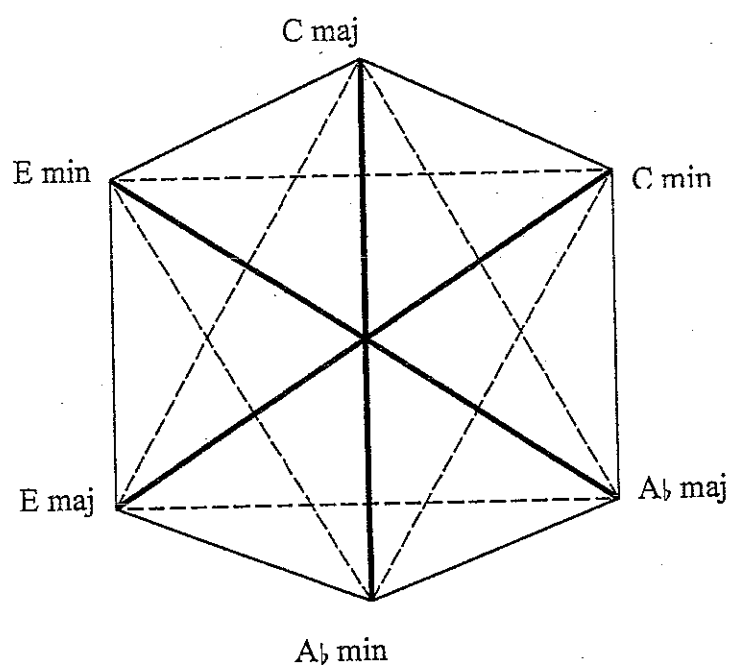
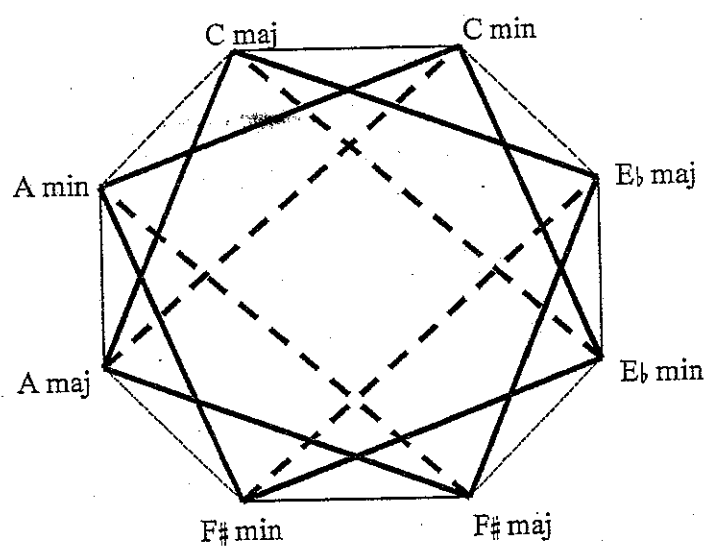


Figure 3.4: Hexatonic Network



VLE Score:	
1:	_____
2:	-----
3:	—————

Figure 3.5(a): Octatonic Network, VLE scores 1-4



VLE Score:	
1:	_____
2:	-----
3:	—————
4:	-----

Figure 3.5(b): Octatonic Network, VLE scores 5-6

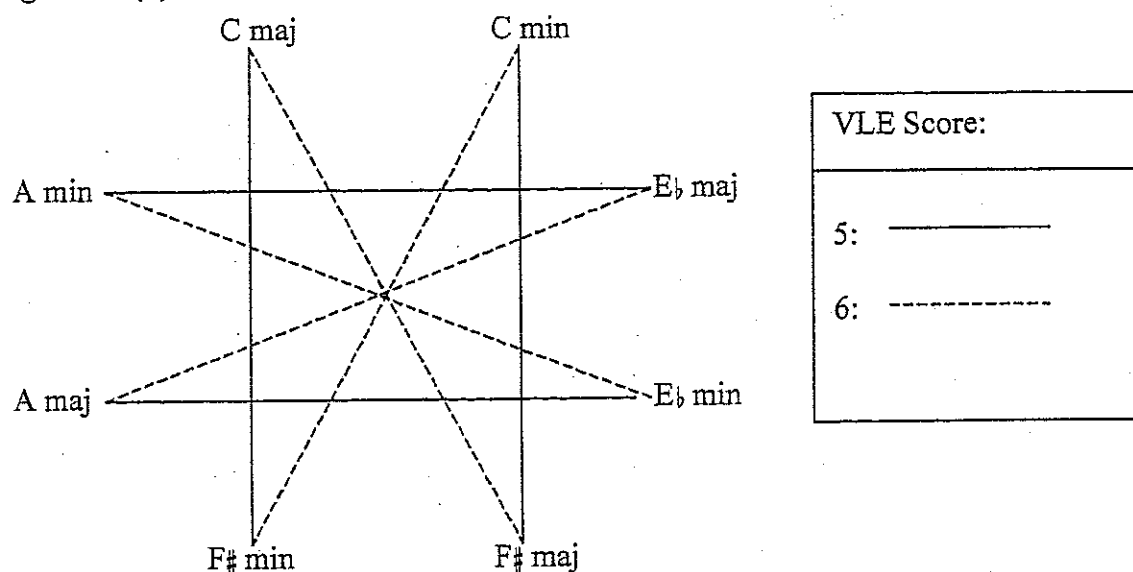


Figure 3.6: 'Graph of SSD[single semitonal displacement]-relations between the twenty-four *Klänge* and the four augmented triads (*Weitzmann graph*)' from Cohn, 'Weitzmann Regions, My Cycles, and Douthett's Dancing Cubes', *Music Theory Spectrum*, 22/1 (2000), p. 94.

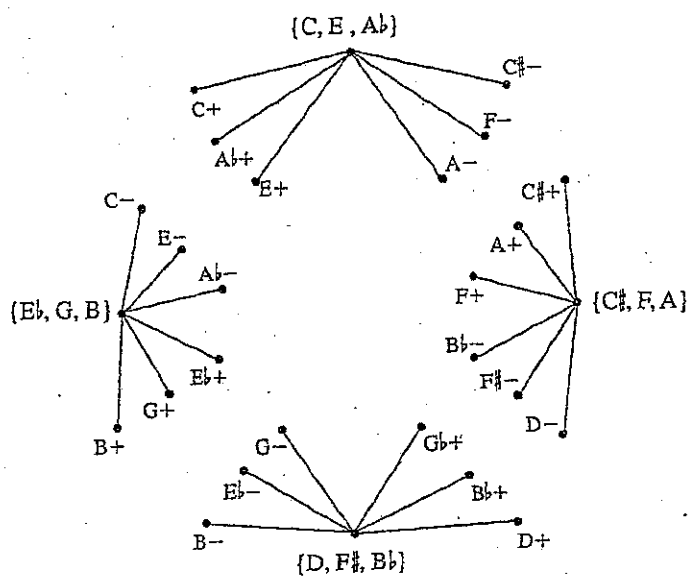


Figure 3.7: P, L and R transformations from G minor plotted on the *Tonnetz*

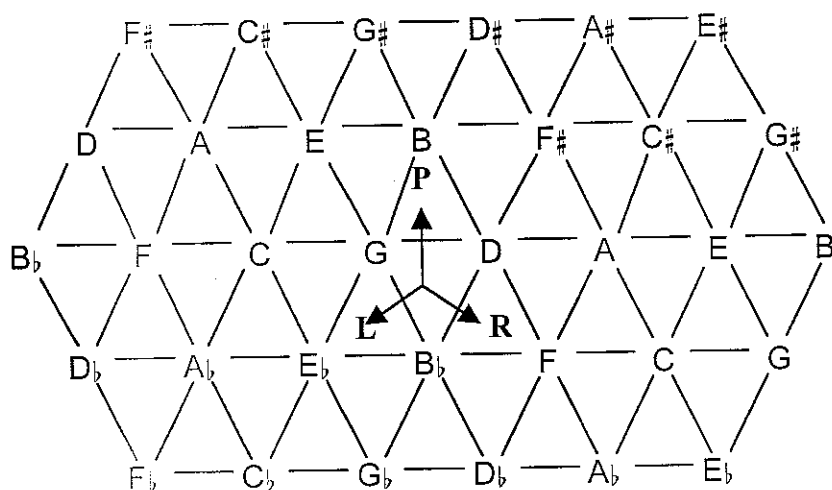


Figure 3.8: Hexatonic and Octatonic cycles plotted on the *Tonnetz*

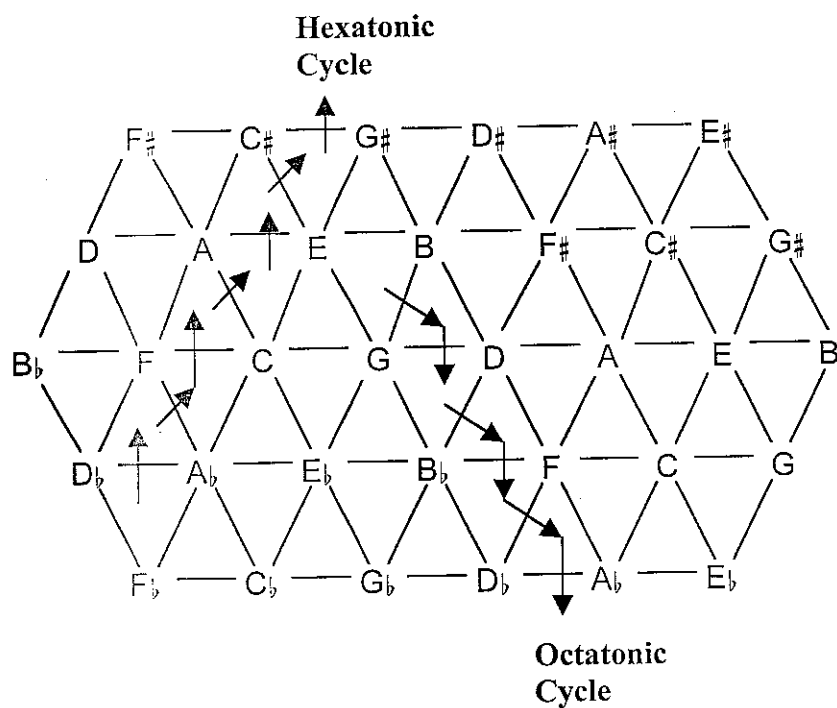


Figure 3.9: A Weitzmann region plotted on the *Tonnetz*

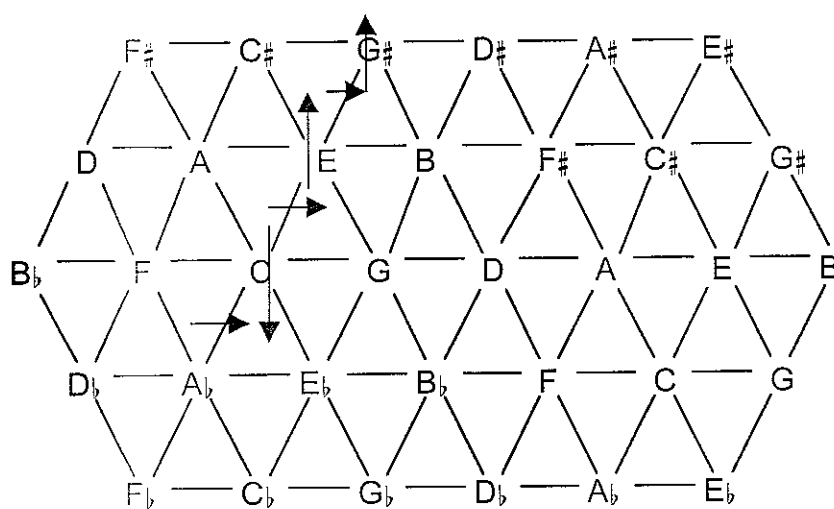


Figure 4.1: Descending chromatic chain on the *Tonnetz*

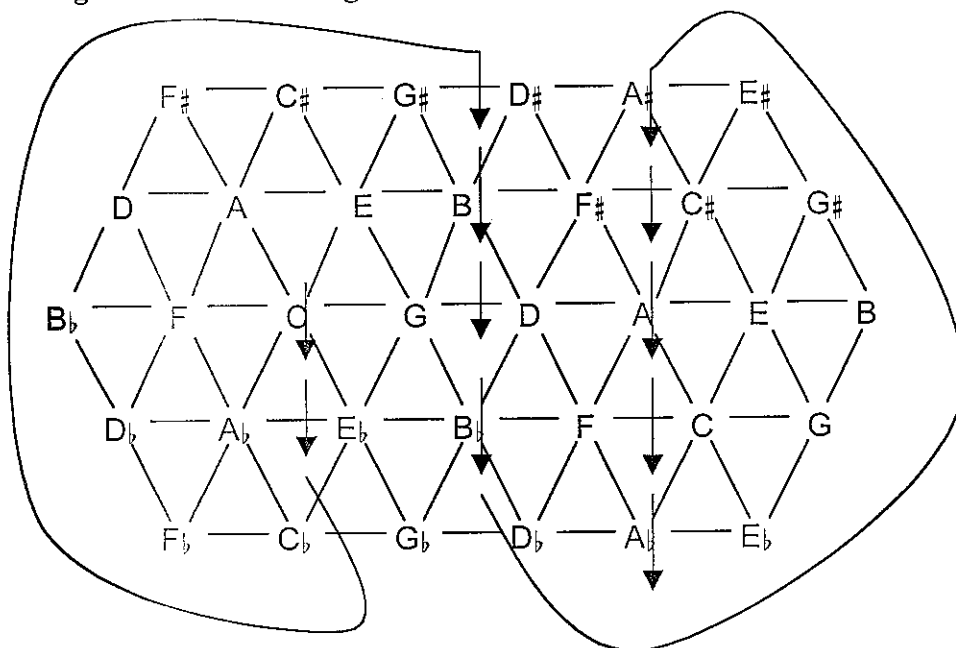


Figure 5.1: Expressive growth and decay across a movement.

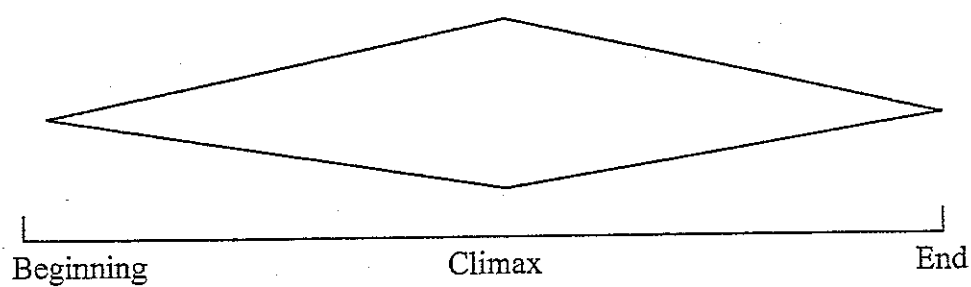


Figure 5.2: Expressive growth and decay in the fifth symphony, first movement.

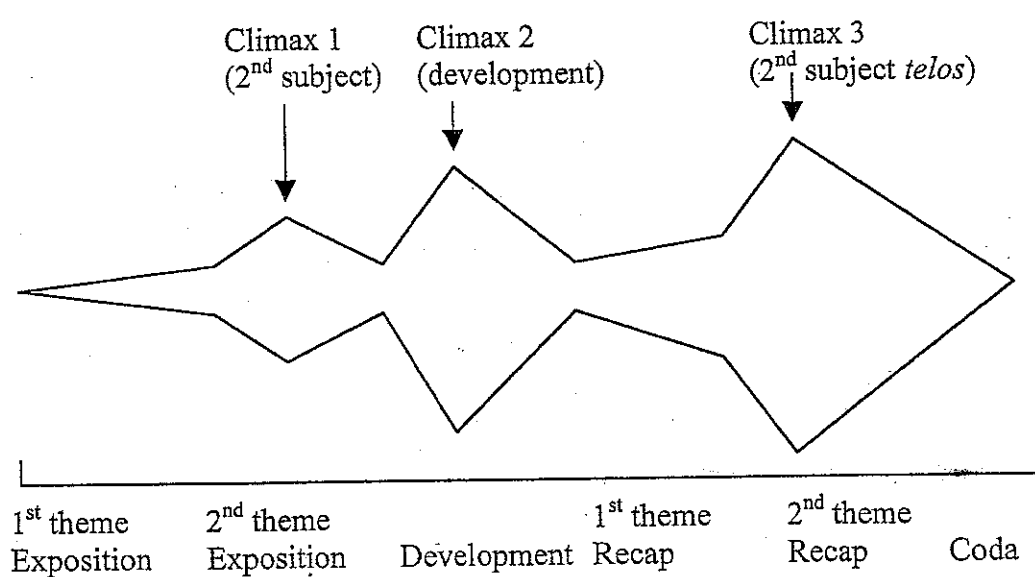


Table 2.1: *The Lark Ascending* – Formal Plan

Bar	Section	Theme	Pitch Centres
1	Introduction 1	(see Ex. 2.9)	E Dorian
3	Cadenza 1	Cad. 1	D Pentatonic (D, E, F#, A, B)
4		A1	(G, A, B, D) then D Pentatonic
5	A section	A1, A2, A3	E Dorian
C.10		A4	modulating
D.10		A2, A1	E Aeolian
F.4	Introduction 2	(see Ex. 2.9)	E Dorian
F.7	Cadenza 2	Cad. 1	D Pentatonic
F.8	B section	B1	E Aeolian
L.6		B2	D Dorian
R.1		B1	E Aeolian
T.10	A' section	A1, A2, A3	modulating, E Aeolian
V.9		A4	modulating
W.4		A2, A1	E Aeolian
Y.1	Introduction 3	(see Ex. 2.9)	E Aeolian
Y.6	Cadenza 3	Cad. 1	E Pentatonic, B Pentatonic, E Pentatonic

Table 3.1: Voice Leading Efficiency Scores from C major, Arranged by Hexatonic Cycle

Hexatonic Cycle:	Triads, with VLE score from C major:		
H0:	C major: 0	E major: 2	A \flat major: 2
	C minor: 1	E minor: 1	A \flat minor: 3
H1:	C# minor: 2	F minor: 2	A major: 2
	C# major: 3	F major: 3	A minor: 3
H3:	E \flat major: 3	G major: 3	B major: 3
	E \flat minor: 4	G minor: 4	B minor: 4
H2:	D minor: 5	F# minor: 5	B \flat minor: 5
	D major: 6	F# major: 6	B \flat major: 6

Table 3.2: VLE Scores from C major, arranged by VLE score, and then ascending by root from C.

VLE Score 1	
VLE between neighbouring chords	1 2 1
Chords with this VLE Score	(C min C min E min (C maj))
Distance between roots in semitones	0 4 8

VLE Score 2	
VLE between neighbouring chords	2 2 2 2
Chords with this VLE Score	(C maj) C# min E maj F min Ab maj (C maj)
Distance between roots in semitones	1 3 1 3 1 3

VLE Score 3	
VLE between neighbouring chords	3 6 6 6 6 6 3
Chords with this VLE Score	(C maj) C# maj Eb maj F maj G maj A maj B maj (C maj)
Distance between roots in semitones	1 2 2 2 2 2 1

VLE Score 4	
VLE between neighbouring chords	4 2 2 4
Chords with this VLE Score	(C maj) Eb min G min (C maj)
Distance between roots in semitones	3 4 4 1

VLE Score 5	
VLE between neighbouring chords	5 2 2 5
Chords with this VLE Score	(C maj) D min F# min Bb min (C maj)
Distance between roots in semitones	2 4 4 2

VLE Score 6	
VLE between neighbouring chords	6 2 2 6
Chords with this VLE Score	(C maj) D maj F# maj Bb maj (C maj)
Distance between roots in semitones	2 4 4 2

Table 3.3: 'From far, from eve and morning'

Section:	Bars:	Key:
A	1-11	E
B	12-21	F#, modulates
A'	22-27	E

Table 4.1: Fifth Symphony, Third Movement Structure

Bar	Sonata Form	Rotations	Themes	Tonal Centres and Triadic Juxtapositions*
1	Exposition 1	Rotation 1	1	<i>C major/A major</i>
1.1			2	White note resource
2.4			3	White note resource
2.11	Exposition 2	Rotation 2	1	<i>G major/E major</i>
3.1			2	White note resource
4.4			3	White note resource
4.14	Development	Rotation 3	3	White note resource
5.6			1	<i>E major/C# major</i>
7.1			1	A: [A, B \flat , C, D, E, F \sharp /F \sharp , G]
7.11		Rotation 3	2	B \flat : [B \flat , C \flat /C \sharp , D \flat /D \sharp , E \flat /E \sharp , F, G, A \flat]
8.1			3	E Aeolian
8.6	Recapitulation	Rotation 4	1	<i>E\flat major/C major</i>
8.12			1	<i>C major/A major</i>
8.19			2	White note resource
10.12			3	White note resource
11.1	Coda	Rotation 5	1	<i>A major/F# major</i>
11.4			3	E Dorian
11.8			1	<i>C major/A major</i>
11.14			2	A major

* Tonal centres are given in normal type. "White note resource" is discussed in the commentary. Tonal oppositions are given *in italics*.

Table 5.1: Summary of James Hepokoski's Sonata Deformation Subtypes¹

Deformation Type	Description	Examples
The breakthrough deformation	'Here an unforeseen inbreaking of a seemingly new (although normally motivically related) event in or at the close of the 'developmental space' radically redefines the character and course of the movement'	Schumann, 4/i. Mahler, 1/i and iv, 5/ii, 8/i. Strauss, <i>Don Juan</i> , <i>Death and Transfiguration</i> . Sibelius, 5/i.
The introduction-coda frame	'This procedure gives the effect of subordinating 'sonata-activity' to the overriding contents of an encasing introduction and coda'	Mendelssohn, 3/i, <i>A Midsummer Night's Dream</i> Overture. Schubert, 9/i. Wagner, <i>Tannhäuser</i> Overture. Tchaikovsky, 2/i. Glazunov, 4/i. Elgar, 1/i.
Episodes within the developmental space	'Here the space normally allotted to development is partially or wholly given over to one or more – but often a pair of – episodes, which may or may not be motivically related to material heard earlier.'	Weber, <i>Euryanthe</i> Overture. Brahms, <i>Tragic</i> Overture. Wagner, <i>Tannhäuser</i> Overture, <i>Siegfried Idyll</i> . Liszt, <i>Tasso</i> . Strauss, <i>Macbeth</i> , <i>Don Juan</i> , <i>Death and Transfiguration</i> .
Various strophic/sonata hybrids	'“four strophes” of a first/second theme-pattern'	Beethoven, <i>Appassionata</i> sonata, first mvnt. Mendelssohn, 'Scottish' Symphony
	'early fusions of the strophic and sonata principles'	Berlioz, <i>Harold in Italy</i> , first mvnt, <i>Le Carnaval Romain</i> .
	'three broad, multithematic strophes simultaneously articulating a sonata deformation, or vice-versa.'	Mahler, <i>Resurrection</i> symphony finale
	'rotational form ... a basic thematic or rhetorical pattern presented at the outset of a piece ... is subsequently treated to a series of immediate, though often substantially varied, repetitions.'	Sibelius, 5 (all movements), 6/iv.
Multimovement forms in a single movement	Featuring the 'interrelation and fusion of movements'	Schubert, <i>Wanderer Fantasy</i> ; Schumann 4. Wagner, <i>Die Meistersinger</i> overture. Sibelius 3/iii, 3/iv, 7.

¹ This summary draws from James Hepokoski, *Sibelius: Symphony No. 5* (Cambridge: Cambridge University Press, 1993), pp. 6-7, 29, and his 'Rotations, Sketches, and the [Sibelius's] Sixth Symphony' in Timothy L. Jackson & Veijo Murtomäki, eds, *Sibelius Studies* (Cambridge: Cambridge University Press, 2001), pp. 322-51.

Table 5.2: Some Sonata Deformations in Vaughan Williams's Symphonies

Deformation Type:	Symphony Movements:
Breakthrough:	1/i
Introduction-coda frame:	2/i (coda deferred to finale), 3/iv
Episode within the developmental space:	2/i
Rotational form (not sonata form):	2/ii, 3/ii, 3/iv, 9/ii
Rotational dialogue with sonata form:	3/i, 4/i, 5/i, 5/iii, 9/i

Table 5.3: Fourth Symphony, First Movement Structure

Bar	Section	Theme	Pitch Centres
1	Exposition (rotation)	1	Centred on C, then unclear
1.7			Centred on F, then unclear from 2.1
5.1		2	B \flat /D minor, then modulating
6.5			A minor, then modulating
7.9			F \sharp minor theme ends section
8.1		3	D major modified ($\sharp 4$, $\flat 6$, $\flat 7$)
8.12			E \flat major/minor
9.8			D major modified ($\sharp 4$, $\flat 6$, $\flat 7$)
11.1	Development (not rotational)	1	D major/minor
14.4	Recapitulation (rotation)	1	F minor
15.1		2	B \flat /D minor, then modulating
16.6			A minor, then F \sharp minor
17.1	Coda activity in recap space (still part of rotation)	3	C pedal against D \flat major/minor harmony
18.1			D \flat major/minor then final D \flat major chord

Table 5.4: Sixth Symphony, First Movement Structure

Bars	Section	Themes	Pitch Centres
1	Exposition	1(a)	F/E minor
2.1		1(b)	E \flat major theme against other materials
4.1		2(a)	G minor
8.1		2(b)	B minor/major
9.1	Development	2(b)	D minor
11.1			G minor/major
12.1	Recapitulation	1(a) (but without opening motif)	E minor
13.6		1(b)	E minor
15.1		2(b)	E major/minor
18.1	Coda	1(a) opening motif	E minor

Table 5.5: *A Pastoral Symphony*, First Movement Structure

Sonata Form	Exposition		Codetta		Development	?Recap	Recapitulation (order of themes changed)		Recap or coda?	?		
Rotational Form	Rotation 1				Rotation 2							
Pitch Centres	G	G	G	→ a	A	F#	A		c	→ G	→ g	G
Elements	1	2	3	1,2,3	4	5	6	7	8	9	10	11
Bars	1	4	8	A.2	B.	B.	D.	D.	E.	E.1	F.	F.3
					4	10	2	9	4	0	5	2
					4	4	10	2	9	4	0	5
					4	4	10	2	9	4	0	5
					4	4	10	2	9	4	0	5
					4	4	10	2	9	4	0	5
					4	4	10	2	9	4	0	5
					4	4	10	2	9	4	0	5
					4	4	10	2	9	4	0	5
					4	4	10	2	9	4	0	5
					4	4	10	2	9	4	0	5
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					4	4	10	2	9	4	0	5

Table 5.6: *A Pastoral Symphony*, Second Movement Structure

Rotational Form	Rotation 1			Rotation 2		Overlapping Rotation 3 (aborted)
Pitch Centres	F min	F min, → G min	E _b maj →	A → min	F min	F min
Elements	1	2	3	1	2	3, 1
Bars	1	B.2	F.7	G.5	H.6	L.1
						M.2

Table 5.7: *A Pastoral Symphony*, Fourth Movement Structure

Rotational Form	Rotation 1		Rotation 2		Rotation 3 (aborted)	
Symmetrical Structure	A	B	C	B	A	
Pitch Centres	A minor	D min	→	D min, D maj	A min	
Elements	1	2	1	2	1	
Bars	1	A.4	E.6	M.8	P.9	

Table 5.8: *A London Symphony*, Second Movement, Ternary Structure

Section:	Bars:
A	1-C.15
B	D.1-H.5
A'	H.6-L.13

Table 5.9: *A London Symphony*, Second Movement, Rotational Structure

Bar	Formal Section	Themes	Pitch centres
1	Introduction	1	E minor
5		2	A \flat minor - C minor
9	Rotation A1	1	E minor
A.1		2	A \flat minor - C minor, D \flat in bass
A.13		3	C minor - C major
B.9	Rotation A2	1, 2	E minor - modulating
C.9		3	C minor - C major
D.1	Rotation B1	4	E minor
F.1		5	E major - E minor
F.10	Rotation B2	4	E minor - modulating
G.1		5	G major - modulating
H.6	Rotation A3	1	E minor
H.8		2	A \flat minor - C minor, D \flat in bass
L.1		3	C minor - C major
L.7	Epilogue phrase	3, 4	A minor

Table 5.10: Fifth Symphony, First Movement Structure

Bar	Sonata Form	Rotations	Elements	Tonal Centres
1	Exposition: 1 st themes	Rotation 1	1-4	D Mixolydian over C
9			5, 6, 1-4	D Dorian over C
2.1		Rotation 2	1-6	D Mixolydian over C, then D Dorian over C
3.8				F Dorian (no $\hat{6}$)
4.2				C Dorian
5.1	2 nd themes	Rotation 3	1-6	E Major, with alterations
6a.11	Development	(not rotational)	2, then dvlp of 4	C Dorian
8.9			Dvlp of 4	E \flat Aeolian
9.3				F \sharp Aeolian/Phrygian
9.12				A Phrygian
11.1	Recapitulation: 1 st themes	Rotation 4	1-6	D Mixolydian over C, then D Dorian over C
12.7	2 nd themes	link to ...	3, 4	modulating
13.1		Rotation 5	1-6	G maj with modal alterations
14.8	Coda	Rotation 6	1-6, dvlp material	Modulating, then F dorian (no $\hat{6}$) alternating with D mixolydian over C

Table 5.11 Summary of Rhetoric of Closure in Final Movements

Symphony:	Device(s):
<i>Sea</i>	Breakthrough at the words "Steer for the deep waters only", leads to epilogue section.
<i>London</i>	Integrative rondo, leads to epilogue, which includes further integration of first movement introduction material and main theme.
<i>Pastoral</i>	Introduction-coda frame makes closing bars an epilogue gesture.
4	Rondo leads to fugal epilogue and resolution of first movement sonata argument.
5	Passacaglia opens space for resolution of first movement tonal opposition, and final movement's main theme provides material for epilogue closure.
6	Movement is titled 'Epilogue' but avoids all rhetoric of closure during the movement, ending with ambivalent juxtaposition of Eb major and E minor (tonic) chords.
<i>Antartica</i>	Integrative rondo leads to breakthrough of first movement main theme. Triumphant closure possibility rejected in favour of unstable ending comprising tonal opposition of G and Eb plus wind machine.
8	Rondo leads to triumphant closure, restating the movement's main theme.
9	Breakthrough theme provides climax material, followed by return of first movement opening theme and epilogue style ending.

Table 5.12: Ninth Symphony, Fourth Movement Structure

Bar	Structure	Theme
1	Rotation 1	1
2.1		2
2.6		3
5.1		2
6.1		4
8.1	Rotation 2	1
10.1		3
11.1		2
12.1		4
16.1	Episode? – Breakthrough theme	5
21.1	(theme becomes integrative)	1 st mvnt triplet figure and 5
22.1		1 st mvnt main theme, 4 and 5
25.1		2
27.1		5
28.1		4
29.1	(breakthrough theme climax)	5
32.1	Coda, 1 st half	Dvlp 2, 4 (relates 1 st mvnt main).
34.1	Coda, 2 nd half	From 1 st mvnt, main themes section