

**‘THE DIFFERENCE BETWEEN US’: USING EARLY MEDIEVAL NORTHERN
EUROPEAN TEXTS IN THE CREATION OF A WORK FOR INSTRUMENTAL
ENSEMBLE, VOICES AND ELECTRONICS**

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A thesis submitted in partial fulfilment of the requirements of Birmingham City University
for the degree of Doctor of Philosophy

October 2016

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Abstract

The aim of this investigation was to explore ways of using untranslated early medieval texts in contemporary musical composition, drawing on literature in Old English, medieval Irish, Old Norse and Middle Welsh. The ultimate goal of this research was to compose a chamber opera for three singers, ensemble and electronics. Despite focusing on the use of text, this is not a literary or linguistic research project. While a knowledge of languages, form and metre has been crucial to my work, the texts have been treated as an element of the creative compositional process. The music has not been written to exemplify text, but to explore and extrapolate the ideas that might arise from it. Moreover, although the texts under consideration were from early medieval northern Europe, the project did not address issues of historical performance practice. Neither was there any attempt to recreate a historical or imagined form of early music. Instead, the texts were used for the literary and sonic content that they provided. The musical language with which these ideas were expressed is my own, which owes its development both to contemporary music and to the legacy of the twentieth century.

The first chapter introduces the background to the project, with reference to contemporary composers whose works have informed and influenced the development of my ideas. This is followed by a brief description of the major piece, a chamber opera for three singers, ensemble and electronics entitled *The Difference Between Us*. In order to hone and explore the various approaches that had the potential to be used in the chamber opera, it was necessary to compose a variety of supporting works. The first supporting work, *We Are Apart; Our Song Together*, is discussed in detail in Chapter Two, since the composition was included in its entirety as part of the final work. Additional supporting works are discussed in Chapter Three, with sections of this chapter devoted to the vocal, instrumental and electronic compositions of the portfolio. The ideas that were

developed in these three compositional genres achieved synthesis in the final work, *The Difference Between Us*, which is discussed in Chapter Four.

In writing *The Difference Between Us*, the supporting compositions provided invaluable preparatory research into the ways in which early medieval texts could shape the musical structure and content of the work at every level, from surface detail through to global structure. However, the use of untranslated texts in a chamber opera raised profound questions regarding communication and narrative. The form, structure and content of *The Difference Between Us* arose precisely as an attempt to answer these questions. Rather than limiting the scope of the chamber opera, the early medieval texts became the cornerstone of the musical structure and drama of the work. These conclusions are discussed and evaluated in Chapter Five.

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Contents of Folio

Volume 2: We Are Apart; Our Song Together (2009–10) Mezzo-Sop., Electronics (7'04'')

Volume 3: Two Old Irish Poems (2010, rev. 2014) Mezzo-Sop., Fl. and Electronics (3'42'')

Volume 4: Ginnungagap (2010–11) Picc. 2. 2. C.A. 2. B.Cl. 2. Cbsn. 4. 3. 2. B.Tbn. 1. Timp. 4.Perc. Hp. Pf. Mezzo-Sop. Strings 16.14.12.10.8 (c.7'20'')

Volume 5: Argatnél (2014) 2 (II=Picc./A. Fl.). 2 (II=C.A.). 2 (II=B.Cl.). 2 (II=Cbsn.). 2. 2. 1. B.Tbn. 2.Perc. Hp. Pf. Strings 3.2.2.2.2 (c.9')

Volume 6: Ildathach (2014) Cl., Accordion, Pf., Vn., Vc. (c.6'30'')

Volume 7: The Deirdre Prophecy (2014 - 15) Fl., Cl., Hn., Tbn., Perc. (1 player), Hp., Vn., Vc. (c. 4')

Volume 8: Ungelīc is Ūs (2015) Electroacoustic fixed media (11'40'')

Volume 9: A Travelling Spirit (2015) Electroacoustic fixed media (5'25'')

Volume 10: The Seeress (2012–15) Electroacoustic fixed media (10'00'')

Volume 11: The Death of Odin (2014–15) Cl. db. B.Cl., Perc. (1 player), Vc., Countertenor, Tenor, Bar., Pf. (c.11')

Volume 12: The Difference Between Us (2015–16) Fl., Ob., Cl. db. B.Cl., Bsn., Hn., Perc. (1 player), Hp., Mezzo-Sop., Countertenor, Bar., Synth., Vn., Va., Vc., Db., Elec. (c.25')

Contents of CDs

Disc 1: Works for One or More Singer(s) and Instrumentalist(s)

1. We Are Apart; Our Song Together. Lucie Louvrier (mezzo-soprano) (7'06'')
2. Two Old Irish Poems. Lucie Louvrier (mezzo-soprano), Ivan Bellocq (flute) (3'46'')
3. Ginnungagap. Phillipa Thomas (mezzo-soprano), Birmingham Conservatoire Orchestral Workshop 2011, Edwin Roxburgh (conductor) (7'26'')
4. Argatnél. London Philharmonic Orchestra, Clement Power (conductor) (10'02'')
5. Ildathach. Composit Ensemble, Hans Kretz (conductor) (6'42'')
6. The Deirdre Prophecy. BCMG, Richard Baker (conductor) (4'10'')
7. The Death of Odin. Adrian Dwyer (tenor), Jonathan Gunthorpe (baritone), William Purefoy (countertenor), Auriol Evans (violoncello), John-Paul Gandy (piano), Jack McNeill (clarinet), Oliver Pooley (percussion), Timothy Redmond (conductor) (11'22'')

Disc 2: Electroacoustic Fixed Media Works

1. Ungelīc is Ūs (11'40'')
2. The Seeress (10'00'')
3. A Travelling Spirit (5'25'')
4. The Difference Between Us – bars 50–74. Electroacoustic fixed media part (1'36'')
5. The Difference Between Us – bars 75–111. Electroacoustic fixed media part, for study purposes only. Multiple audio files have been combined into a single electronic track, in order to give an impression of the combined effect of multiple, superimposed audio files. In performance, individual audio files will be triggered at specified points in the score. (2'24'')
6. The Difference Between Us – bars 139–167. Electroacoustic fixed media part, for study purposes only. Multiple audio files have been combined into a single electronic track, in order to give an impression of the combined effect of multiple, superimposed audio files.

In performance, individual audio files will be triggered at specified points in the score.)
(1'23'')

7. The Difference Between Us – Bars 210–362 / We Are Apart; Our Song Together
Electroacoustic fixed media part (7'04'')

8. Two Old Irish Poems – Electroacoustic fixed media part (3'42'')

Disc 3: Additional Media

Folder: Numbered Sound Files and Integra Live Patch for The Difference Between Us

1. The Difference Between Us. Audio file 1. WAV file (25.1 MB)
2. The Difference Between Us. Audio file 2. WAV file (4.6 MB)
3. The Difference Between Us. Audio file 3. WAV file (4.7 MB)
4. The Difference Between Us. Audio file 4. WAV file (6.9 MB)
5. The Difference Between Us. Audio file 5. WAV file (4 MB)
6. The Difference Between Us. Audio file 6. WAV file (6.9 MB)
7. The Difference Between Us. Audio file 7. WAV file (7.3 MB)
8. The Difference Between Us. Audio file 8. WAV file (1.6 MB)
9. The Difference Between Us. Audio file 9. WAV file (7.4 MB)
10. The Difference Between Us. Audio file 10. WAV file (5.6 MB)
11. The Difference Between Us. Audio file 11. WAV file (4.6 MB)
12. The Difference Between Us. Audio file 12. WAV file (13.2 MB)
13. The Difference Between Us. Audio file 13. WAV file (8.3 MB)
14. The Difference Between Us. Audio file 14. WAV file (8.5 MB)
15. The Difference Between Us. Audio file 15. WAV file (10.9 MB)
16. The Difference Between Us. Audio file 16. WAV file (8.1 MB)
17. The Difference Between Us. Audio file 17. WAV file (9.1 MB)
18. The Difference Between Us. Audio file 18. WAV file (112.2 MB)
19. The Difference Between Us. Integra Live document (285.9 MB)

To open the Integra Live project, the following computer specifications are suggested:

Integra Live 1.7.2, MacOS 10.10 or higher, 2GHz i7 Intel Processor or better, 4GB RAM, 500 MB of storage space (for Integra Live software and project files), a 2 in/2 out USB audio interface or better.

Integra Live software is freely available at <https://sourceforge.net/projects/integralive/files/>
Documentation and tutorials are available at <http://integra.io/integralive/>

Folder: Two Old Irish Poems

1. Two Old Irish Poems. WAV file (58.8 MB)
2. Two Old Irish Poems. Max document (16 KB). Created using Max 6 (version 6.1.2).

Software is available at <https://cycling74.com>. For the latest version of Max, system requirements are an Intel® Mac with Mac OS X 10.7 (or later), or a PC with Windows 7 (or later); Multicore processor; 2 GB RAM; 1024×768 display; broadband internet connection for installation.

Disc 4: The Death of Odin.

MP4 File. 232.2 MB (11'52")

Adrian Dwyer (tenor), Jonathan Gunthorpe (baritone), William Purefoy (countertenor), Auriol Evans (violoncello), John-Paul Gandy (piano), Jack McNeill (clarinet), Oliver Pooley (percussion), Timothy Redmond (conductor), Josh Armstrong (director), Harry Witham (stage design). [MP4 File] Recorded at the Britten Studio, Snape Maltings, Suffolk, on 17 September 2015.

This file can also be accessed via the following private YouTube link: https://youtu.be/rfu_62q1ZFY

Acknowledgements

I wish to acknowledge my profound gratitude to my main supervisor, Edwin Roxburgh, for his continued advice, helpful criticism and support. I would also like to thank Richard Causton, whose insightful comments and analyses were an invaluable stimulus during monthly supervisions until 2012. I am grateful to Francis Firth and the staff at Birmingham Conservatoire library for obtaining books and scores which greatly facilitated my research. The research department of Birmingham Conservatoire provided travel bursaries to enable my attendance at overseas performances of my work, for which I owe particular thanks to Professor Ronald Woodley and to Liz Reeve. As my academic supervisor, Professor Woodley's guidance and comments regarding my written work were invaluable. Towards the end of my doctoral studies, Professor Christopher Dingle gave me vital advice regarding the completion and submission of my PhD. I am deeply grateful to Dr. Joe Cutler, for his indispensable help in facilitating performances and workshops of my compositions, and for his advice and comments after hearing my music. My compositional research has been aided by the stimulating, practical environment of Birmingham Conservatoire, for which I am grateful to all the staff and students I have met. Finally, I am sincerely thankful to my director of studies, Dr. Simon Hall, for his advice and support during every stage of my PhD.

I. Background and Context

i. Beginnings

As an undergraduate, the degree of Anglo-Saxon, Norse and Celtic gave me the opportunity to spend three years studying the language, literature and philology of Old English, Old Norse, Medieval Welsh and Old, Middle and Classical Modern Irish. It was only after my arrival at university, when I began playing in wind chamber ensembles, that I discovered an environment in which I could write music and receive an immediate workshop performance of my sketches. This experience encouraged me to apply for an MMus at Newcastle University, where analysis classes and regular composition tutorials led me to discover a much wider range of twentieth-century and contemporary music.

My doctoral research project was inspired by the desire to make sense of my particular compositional journey. Despite my fascination with language and literature, I harboured a lingering sense of regret that I had spent three years studying language and literature rather than music. However, my studies had given me access to a vast and varied array of early literature, with manifold musical possibilities. By following the research path for which I was uniquely suited, I had the opportunity to undertake compositional investigations in an area which had rarely been a focus of contemporary musical studies.

Before discussing the works that have been influential during the course of my doctoral project, it is perhaps necessary to outline my personal approach to composition. For me, each new composition begins as a journey to an unknown destination. In practice, this means that my pre-compositional ideas must be flexible enough to allow the musical material to grow and develop in its own way. In Chapter Two, a number of works are illustrated in which pre-compositional ideas

were imposed more rigidly. While such plans were useful when composing short works to investigate one or two ideas from a text, for me they proved to have a stultifying effect when applied to compositions of a larger scale. By the time of writing *The Difference Between Us*, my approach had changed. Although the final work drew on many of the compositional methods that had been honed in the supporting works, the pre-compositional ideas were employed less rigidly. They had become like seeds, containing enough sustenance to allow the musical ideas to become self-sustaining. Rather than introducing an element of vagueness into my compositions, the development of a more germinal approach to compositional planning required my initial ideas to have greater clarity. In some respects, the idea of a kernel of musical material shares similarities with Hindemith's concept of the musical vision, whereby the essence of a composition might be encapsulated in a single moment, to be subsequently realised by the composer's technical skill (Hindemith, 1961: 70–72). The development of my working methods and the implications for my relationship to text are discussed during Chapter Three.

In mentioning my relationship to text, it would be useful to clarify some of my reasons behind using predominantly untranslated poetry. For the purpose of my project, I found that early medieval poetry provided striking imagery and interesting patterns of rhyme, alliteration and stress with which I could explore musical ideas. While there is undeniably an argument for translating poetry in order to preserve its meaning, even an advocate of verse translation, such as Welch (1972: 326–327), noted the problems of rendering poetry in another language. Indeed, Dr. Johnson (1874: 522) even went so far as to assert that 'the beauties of poetry cannot be preserved in any language except that in which it was originally written'. In the context of early medieval poetry, a text's adherence to patterns of rhyme and stress was often as important as its meaning. Such was the case of the Old and Middle Irish 'cheville', a line or phrase inserted into a poem to fill up its metre and, according to the translator Gerard Murphy 'often hardly relevant to the context' (Murphy, 1998: xviii). When early languages are translated for incorporation into a piece of music, the listener's

attention is naturally drawn to the meaning of the sung or spoken words. In contrast, the use of a dead language obliges the listener to appreciate the sound of words and syllables as part of the overall auditory experience of the work. Whereas Boykan (2000: 123) proposed that ‘music obliterates so many of the effects poetry relies on’, my project made possible the re-appropriation of many of the effects of early medieval poetry into a musical setting.

ii. Context

During the course of my doctoral project, my investigations were both stimulated and challenged by a wide variety of works by other composers. A preliminary survey of music composed since the 1970s yielded a surprising number of compositions based on ancient and early medieval European texts. These include works based on mythology, such as Julian Anderson’s *Thebans* (2014) and Harrison Birtwistle’s *The Minotaur* (2005–2007), works based on early poetry, such as Michael Finnissy’s *Maldon* (1991), and works based on non-fictional medieval sources, such as Edwin Roxburgh’s *Abelard* (2004) and Peter Maxwell Davies’s *The Martyrdom of St. Magnus* (1977). Many of these pieces incorporated modern English translations, often set within a musical language that was different to my own. Yet in spite of these differences, contemporary pieces which used texts from early English, Irish, Norse and Welsh literary traditions provided the context for my research project, thereby setting the scene for my initial research questions.

In Tarik O’Regan’s *The Spring* (2008) and *Acallam na Senórach: an Irish Colloquy* (2010), his treatment of Middle Irish poems mirrored the natural stresses and rhythms of the spoken text. O’Regan (20/02/2014: telephone interview) described how repeated listening to recordings of spoken middle Irish poetry were the starting point for this project. Similarly, the sound of text has remained a crucial reference point throughout my doctoral investigation. In contrast, Michael Alcorn’s use of electronics to allude to the sea in the opening of *The Old Woman of Beare* (1994)

drew my attention to the dramatic possibilities when pre-recorded electronics are used in live performance.

Whereas the examples by Alcorn and O'Regan used a combination of translated and original texts, a significant portion of Stef Conner's oeuvre is devoted to vocal music in Old English. In focusing on patterns of stress and alliteration in early poetry, Conner (2013: 16) has demonstrated how musical composition might complement literary and historical studies. During my preliminary experiments with Old English, Conner's *Hord Songs* (2012) provided an invaluable example of the ways in which similar source material might yield contrasting results in the hands of another composer. In common with Conner's *Hord Songs* (2012), Gavin Bryars' *From Egil's Saga* (2004) also uses untranslated texts. Bryars' approach led me to consider questions of communication and narrative when texts are sung in a language that is spoken by neither the performer nor audience. The attempt to answer these questions in the context of a dramatic, multilingual work was a driving force behind my chamber opera *The Death of Odin*, which in turn laid the foundations for my final composition.

When planning the composition that was to form the core of my portfolio, a work from 1988, entitled *Gododdin*, provided a striking example of a multilingual work based on early Medieval Welsh poetry. Developed collaboratively by theatre company Brith Gof and music group Test Dept., *Gododdin* used both translated and original sections of the early British epic of the same name. The appearance of actors in quasi-medieval tunics, set within a post-industrial landscape and accompanied by a percussive, electronic soundtrack, gave the work a temporal ambiguity which challenged my previous assumptions about historicity. Moreover, the way in which Brith Gof built a substantial work from non-narrative, elegiac praise poems had a profound influence on the choice of texts for my chamber opera, *The Difference Between Us*.

Before discussing my final project in more detail, it seems important to mention the composers and works which, although less concerned with early medieval text, have nonetheless

exerted a deep influence on my thoughts about composing. A chance discovery of Jonathan Harvey's *I Love the Lord* (1977) led me to explore the composer's rich and varied output, encompassing works for soloists, ensembles and orchestras, and including a significant body of electroacoustic pieces. My immediate appreciation of Harvey's sound world led to a study of his music and a gradual attempt to develop my practice in reference to some of Harvey's ideas. In particular, Harvey's approach to harmony revolutionised my musical thinking. Although ideas about harmony had always been uppermost in my mind, I found that my larger ensemble works such as *Ginnungagap* showed a growing reliance on linear polyphony. Harvey's discussion of the use of harmonic fields (Whittall, 1999: 20) was invaluable in leading me to develop ways of integrating my increasingly linear ideas into larger harmonic structures.

However, it soon became apparent that my choice of early medieval texts would cause my harmonic approach to diverge from Harvey's. Within his harmonic fields, Harvey frequently applied a symmetrical pitch organisation. Harvey (Whittall, 1999: 21) felt that such symmetry could express the meditative states of consciousness that were central to the Hindu and Buddhist writings to which his works often alluded. In contrast, my doctoral project culminated in a piece built on texts borne of conflict and separation. The development of asymmetric harmonic fields, based on a fundamental pitch, allowed greater flexibility and facilitated the incorporation of microtonal material in my final chamber opera.

Although the combinatorial serialism of Harvey's *Bhakti* (1989) seems at odds with my harmonic language, *Bhakti* was an invaluable example of integration of a pre-recorded tape part into an instrumental ensemble. Moreover, despite the absence of a vocal part, both the title and printed score of *Bhakti* suggest a significant relationship with text. The precise nature of the link between text and structure is not specified in Harvey's programme note. Yet quotations from the ancient Indian *Rig Veda*, appended to the end of each movement, might suggest that the work could be appreciated in the light of its Hindu texts. Harvey's approach to literary inspiration, exemplified by

works such as *Bhakti*, was a helpful reference point during the development of my instrumental works such as *Argatnél* and *Ildathach*, which in turn laid the foundations of the final composition.

Throughout my doctoral work, the study of electroacoustic composition has informed the development of my research. Trevor Wishart's detailed investigation of vocal sounds in his book *On Sonic Art* (Wishart, 1996) stimulated my consideration of the transformation and reconfiguration of prerecorded phonemes in a piece such as my *Ungel̃c is Ūs*. Similarly, Simon Hall's imaginative exploration of a single female voice in *GSOH* (2003) drew my attention to the structural cohesion provided by electronics derived from a single source. Karlheinz Stockhausen's tape piece *Gesang der Jünglinge* (1955–1956) and Jonathan Harvey's *Mortuos Plango, Vivos Voco* (1980) drew my attention to the formal possibilities afforded by varying the pitch and timbre of vocal samples. Wishart's integration of live voices with pre-recorded tape in his *Vox* cycle (Wishart, 1982–1989) encouraged me to treat the voice and tape as a continuum, rather than as entirely separate entities. This idea was developed in my piece *We Are Apart; Our Song Together* for voice and electronics, in which the electronics at times both preempt and echo the singer's voice. However, the idea to combine electronics with voice and instrumental ensemble was first suggested to me by a performance of Philippe Leroux's *Voi(rex)* (Leroux, 2002b) during the *Integra* festival in Birmingham in 2008. Leroux's imaginative integration of the phonetic elements of a text with ensemble and electronics was instrumental in setting the trajectory of the earliest stages of my research, which in turn led to the final composition of my portfolio. Inevitably there are many more works which have informed the development of my doctoral project. Specific examples will be discussed in relation to particular pieces as they arise in the commentary.

iii. The Main Work: *The Difference Between Us*

The doctoral project culminated in a work of approximately twenty-five minutes' duration, for three singers, an ensemble of eleven acoustic instruments, a synthesiser and electronics. These forces were chosen as a result of the ideas and experiments that were honed in the supporting works. My choices were also intrinsically related to the subject-matter of the work's texts, with the concomitant desire to use an ensemble with a wide range of timbral and registral possibilities. With these ideas in mind, *The Difference Between Us* had three main compositional objectives. Firstly, I intended to draw on the particular linguistic, literary and thematic features of early medieval poetry, thereby developing salient characteristics for the music associated with each singer. To facilitate this aim, each singer was assigned poetry in a different language. The second objective was to include moments of electroacoustic material, using the work's early medieval texts as the principal sound source. Thirdly, linking these two goals was the desire to integrate the voices, ensemble and electronics, establishing interdependent relationships between these three elements.

Although the compositional objectives were clear from the start of the project, the precise structure and content of *The Difference Between Us* did not become clear until the final supporting composition (*The Death of Odin*) had been started. *The Death of Odin* marked a crucial stage in the development of my doctoral work, as for the first time, early medieval texts were set within a frame narrative in modern English. Rather than diverting the project away from its original objective, the use of modern English, combined with untranslated early texts, became central to the form and content of *The Difference Between Us*. Yet this should not imply that the sections of untranslated texts were simply an adjunct. In fact, the three early medieval poems were the foundations of both the musical and dramatic ideas on which the work was built. These ideas are discussed in detail in Chapter Four.

II. The First Stage of the Main Composition: *We Are Apart; Our Song Together*

We Are Apart; Our Song Together, for mezzo-soprano and electronics, is both the first and also the most significant of the supporting works. The development of the electronic part, based on samples of the singer's voice, laid the foundations for all of my subsequent electroacoustic pieces. Moreover, *We Are Apart; Our Song Together* is included in its entirety in the main composition, *The Difference Between Us*. Due to its pivotal role, aspects of *We Are Apart; Our Song Together* that relate specifically to the other sections of *The Difference Between Us* will be considered in greater detail in Chapter Three.

The genesis of *We Are Apart; Our Song Together* came from a single research question regarding the ways in which a vocal line might reflect and reinforce patterns of alliteration and stress. Inspired by the juxtaposition of early poetry and modern technology in Kaija Saariaho's *Lonh* (2005), *We Are Apart; Our Song Together* became a work for mezzo-soprano and electronics. However, the precise nature of the electronics would depend on a second research question that was as yet unclear.

In order to investigate the first research question, pre-compositional activity focused on the analysis of an Old English poem known as *Wulf and Eadwacer*, preserved in a tenth-century codex which has acquired the name of the *Exeter Book*. Harvey (1999: 18) drew attention to the ways in which, when setting a text to music, a meditative consideration of the words might lay the foundations for subsequent musical inspiration. In my work, this process helped me to internalise the prosody of the text and gave a much greater immediacy as I began to develop compositional answers to the research question. During the initial stages of this process, it was helpful to compare my methods with those employed by Saariaho in *Lonh* (2005). Whereas Saariaho (2005: introduction) described how she drew on her source text in order to create a collage of the original

poem, my intention was to preserve the text in its unaltered form. Any repetition or fragmentation of the text would have interfered with the very patterns of stress and accentuation that I intended to explore. In focusing on the sound of text, my approach was closer to Stravinsky's treatment of Russian poetry in *Les Noces* (Stravinsky, 1998), which was completed in its second version in 1919. When discussing his use of the Russian folk poetry on which *Les Noces* was based, Stravinsky described his visceral fascination with '... the sequence of the words and syllables, and the cadence they create, which produces an effect on one's sensibility very closely akin to that of music' (Stravinsky, 1936: 91).

Once the poem had been analysed, the next stage was to consider musical responses to stress and alliteration. Beginning with the poem's opening half line, heard initially in the electroacoustic part in bars 15–16 (bars 224–225 of *The Difference Between Us*), the stressed syllables 'lēo-' and 'mī-' were lengthened. However, a uniform application of this approach could have resulted in music with a regular, predictable quality. The text's mercurial range of emotions seemed suited to a more varied vocal line. In the second half of the first line, in bars 20–21 (229–230), variation was achieved by shortening the stressed syllable 'gi-' in contrast to the lengthened stressed syllable 'lāc'. A third variation was achieved by widening the interval between a stressed and unstressed syllable, as in bar 46 (255), so that the first stressed syllable, 'will-', was in relief compared to the subsequent unaccented notes.

Having considered some musical approaches to stress, the process of working through the research question required an examination of the musical treatment of alliteration. In the poem's opening line, in bars 17–21 (226–230), the alliteration of 'lēodum' and 'lāc' is represented with a melisma that begins with two semiquavers followed by a longer note. Since alliterating syllables are invariably also stressed, a common interval could be used to draw attention to both stress as well as alliteration. For example, in bars 32–34 (241–243), the stressed syllables 'Wulf' and 'ic' contain the interval of a semitone. However, in bars 33–34 (242–243), a syllabic setting of 'īege' is compared to

a melisma on the alliterating ‘ic’. As the vocal line was developed, juxtapositions of melismatic and syllabic setting provided greater variety than if every pair of alliterating words were treated the same way.

Considerations of variety raised a crucial issue regarding the first research question. By focusing solely on the text’s poetic effects, the poem’s striking imagery and emotions risked being overlooked. This raised a second, more subjective research question regarding the ways in which music might also respond to the meaning and emotion of the words. In response, the pitch contour of the vocal line was reconsidered in several places, using ascending and descending patterns to represent increasing and decreasing levels of tension. Since short rests were often used to indicate the text’s caesurae, the final pitch of each half-line became a focal point of the melodic contour. For example, in bars 37–42 (246–251), ascending phrases, accompanied by a crescendo, draw attention to the anxiety of the words, which are translated ‘that island is secure, surrounded by marshes, there are cruel men on that island’. Comparison of these bars with the text shows that, before the climax on ‘īge’, two half lines have been elided to form a longer phrase. In other words, the melodic relationship to the text, whereby each half line was separated by a short rest, has been stretched and modified at a moment of heightened emotion. A similar approach can be seen in bars 59–72 (268–281), during the vocal passage that precedes the climax in bar 88 (297). Here, the alliterating words ‘rēnig’ and ‘reotugu’ do not use identical rhythm and intervals, but are marked by semiquavers. However, as Malone has noted, the poem’s sometimes unusual metrics, irregular alliteration and use of a refrain set it outside the classical style of Old English literature (Malone, 1962: 110–111). For this reason, the striking final words of the refrain, ‘ungelīc is ūs’ and ‘ungelīce is ūs’, (‘we are apart’ or ‘there is a difference between us’) are the only example of speech in the mezzo-soprano part.

Having answered two research questions concerning the melodic line, a third area of investigation related to the purpose of the electronics. The process of developing pitch cues for the singer led to the creation of a precomposed electronic part (commonly referred to by the historical

antecedent, ‘tape’). Emmerson (2007: 108) drew attention to the way in which a tape part could sometimes function as ‘a dictatorial and perfect metronome’, depriving the live performer of the subtle adjustments that might otherwise be made to accommodate variables including the acoustic and venue. Consequently, a further research question concerned the development of a more flexible approach, whereby the tape might provide structural reference points rather than demanding an exact synchronisation with the singer.

The initial response to this question was to use sustained tones to create a backdrop for the singer. Moreover, in order to explore the sound of an untranslated poem, drones and motivic material were based entirely on samples of the sung and spoken text. However, from these preliminary experiments it was apparent that, as Wishart (1996: 150–151) has noted, the human voice often remains recognisable even when its spectral characteristics have been altered. If the tape part of *We Are Apart; Our Song Together* was to be constructed from vocally based material, the tape’s human dimension could not be ignored. Thus the role of the disembodied, recorded voice would become crucial to the exploration of the text in *We Are Apart; Our Song Together*.

Young has drawn attention to traces of the singer’s physical presence in the recorded voice, noting that ‘we can hear the body in the voice that sings’ (Young, 2015: 28). Since my composition used the same voice for its live and prerecorded components, the connection between the recorded voice and the physical presence of the mezzo-soprano was evident. In order to build on this connection, the tape part was treated as an extension of the singer’s inner monologue, reflecting the poet’s use of the first person and alluding to the idea of memory. To distinguish the tape voice from that of the live performer, a sense of distance was created by adding some filtering and reverberation to the tape voice whenever it duplicated the singer’s material. This is first heard in bars 15–16 (224–225), when the recorded phrase ‘lēodum is mīnum’ provides a cue for the singer’s initial entry.

Thus far, the tape part of *We Are Apart; Our Song Together* consisted of sustained notes and some short vocal phrases which bore little relation to the images and meaning expressed by the words. The next stage of the investigation was to consider the tape's relationship to the text's landscape of islands and marshes. Moore (2016: 158) proposed that drones in electroacoustic music could create a canopied or rooted setting, alluding to an imaginary horizon. If the tape's sustained drones, such as the D4 in bars 13–28 (222–237), were interpreted as representations of such a horizon, then the vanishing point of the imaginary landscape was already in place. When deciding how to populate this landscape, Wishart's discussion of the metaphorical sound image served as a useful example (Wishart, 1986: 52–56). Wishart (1986: 52–56) proposed that metaphorical interpretations might be established when a sound is transformed, or when contextual cues alter our interpretation of the 'sound-image', as illustrated in his composition *Red Bird* (1977). During the opening twelve bars of *We Are Apart; Our Song Together*, sounds of indefinite pitch were used to create an ambiguous, metaphorical relationship between gestures with a clear vocal origin and more abstract material reminiscent of wind or waves. The text's refrain, 'ungelīc is ūs', was speeded up, filtered and transposed to create a gesture that might be indicative of twittering birds or of bubbling water, as from around bar 8 (217). The name 'Wulf' was slowed down and filtered to create a motif suggesting a gust of wind or a breaking wave, as in bar 4 (213). In developing a metaphorical relationship between vocal and atmospheric sounds, my intention was to allude to the internal nature of a landscape that was framed and articulated by the singer's expression of her thoughts.

Before concluding the discussion of *We Are Apart; Our Song Together*, the vocal line requires further explanation. Throughout the piece, there are numerous versions of the same motif: a minor third followed by a major or minor second, heard each time the name 'Wulf' is sung. The 'Wulf motif' arose from an attempt to link the melodic line to the emotional core of the text. In many ways, it functions as a Wagnerian *leitmotiv*, since it alludes to Wulf even when he is not mentioned by name. Although the 'Wulf motif' provided ample material for a vocal line, the motif

itself underwent little transformation or development. The evolution of musical material in relation to a text would be central to the next stage of research.

III. Supporting Works

i. Works for Voice

When planning the next composition, the first research question was prompted by the lack of motivic development in *We Are Apart; Our Song Together*. It concerned the ways in which musical material derived from a text might grow and develop during the course of a composition. The second research question concerned the relationship between an acoustic instrument and the text of a poem.

Two Old Irish Poems

In order to explore a contrasting language, two short, ninth-century Irish texts were used; ‘Int én bec’ (the little bird) and ‘Int én gaires’ (the bird which calls). For the composer, the concise, perfectly balanced form of the Old Irish poems presents a conundrum. When considering this problem, the music of contemporary French composer Francois-Bernard Mâche (1992: 65–66) provided an interesting comparison. For example, when composing *Safous Mèlè* in 1959 (Mâche, 1971), Mâche described how he used a model based on the metre and phonetics of an Ancient Greek text by Sappho, creating a kind of ‘sound cryptogram’ Mâche (1992: 66). However, texts such as the two Old Irish poems already contain a high degree of consonance and alliteration. When applied to these poems, a model that translates phonetic material into pitch, or which produces rhythmic formulae from the spoken rhythm of a text, would result in something rather uniform. In a work such as *Maponos*, from Mâche’s *Trois chants sacrés* (1992), syllabic text setting and limited intervallic material create a sense of uniformity which is central to the work’s incantatory quality.

However, in my music, the idea of a cryptogram did not address questions concerning the less concrete aspects of a text, such as the possible meanings of words and phrases.

Despite my interest in Mâche's use of ancient texts, it was Boulez's approach that was most relevant to the development of *Two Old Irish Poems*. When discussing some of the ideas behind the composition of *Improvisations 1* (1977), *2* (1958) and *3* (1983) from *Pli selon pli*, Boulez stated that 'what interested [him] was the idea of finding a musical equivalent, both poetic and formal, to Mallarmé's poetry' (Boulez and Deliège, 1976: 94). In addition to developing equivalent forms to represent the poems' patterns of rhyme and syllable structure, Boulez (Boulez and Deliège, 1976: 94) described his attempts to find corresponding sonorities for poetic concepts such as 'green', 'white' or 'absence'. Boulez's individual and subjective response to Mallarmé's poetry suggested a rereading of the Old Irish poems in order to identify poetic concepts that might be developed musically.

In order to represent the concise brevity of 'int én bec', a melodic cell (c - c-sharp - b) became a musical realisation of a line of text. The poetic idea of song, suggestive of unfolding linear material, was implied by widening the interval between the lowest and highest notes of this cell in each successive phrase, until the end of the penultimate phrase in bar 25. Rhythmically, a sense of expansion was created by progressively lengthening the first stressed syllable of each line of text by one quaver.

When considering the relationship between an acoustic instrument and sung text, a flute was chosen primarily because it could occupy a similar range to the mezzo-soprano's voice. However, Saariaho's *NoaNoa* (1992) and *Laconisme de l'aile* (1982) for flute and electronics had drawn attention to the vocal qualities of the flute's extended techniques. Riikonen described the performer of Saariaho's flute music as a 'multi-voiced storyteller' whose lips 'allow the outward emanation of the changing shapes of airstreams and breathing, as well as the resonant depths of imprints left by whispered or spoken words' (Riikonen, 2011: 79). The idea of traces or imprints of

words led to the exploration of ways in which, rather than acting as a storyteller, the flautist might become analogous to a live processor of the voice. In *Two Old Irish Poems*, some of the voiced consonants are reiterated by the flute's breath tone, trilled 'r's are mimicked by flutter-tongue, and the hard 'd' of a word such as 'do' is reinforced with a slap-tongue.

Example 3.1 The first twelve bars of *Two Old Irish Poems*

The musical score is for the first twelve bars of *Two Old Irish Poems*. It features two staves: Mezzo-soprano (M.S.) and Flute (Fl.). The tempo is marked as $\text{♩} = c. 60$. The key signature has one sharp (F#). The score includes dynamic markings (*ppp*, *pp*, *p*, *mp*, *mf*, *ppp*, *pp*, *p*, *mf*, *pp*, *p*, *pp*) and articulation marks (accents, slurs, breath marks). Below the staves, there are boxes identifying specific flute techniques: 'voiced consonant (g) - breath tone', 'trilled 'r' - flutter tongue', 'voiced consonants (f and d) - breath tone', 'hard 'd' - slap tongue', and 'voiced consonant (d) - breath tone'. The lyrics are in Irish and English, with the English lyrics appearing below the Irish ones.

Mezzo-soprano (M.S.)

ppp *pp*

Int én be - c ro léi - c fei - t
 In't e:n be - g ro le: - gi fe - dⁱ

Flute (Fl.)

p *ppp* *mp* *mf* *pp* *mp* *pp*

voiced consonant (g) - breath tone trilled 'r' - flutter tongue voiced consonants (f and d) - breath tone

M.S.

pp *p*

do rinn guip glan - - bui di
 do rin' yub' glan - - vu dⁱ

Fl.

p *mf* *pp* *p* *pp*

hard 'd' - slap tongue trilled 'r' - flutter tongue voiced consonant (g) - breath tone voiced consonant (d) - breath tone

Once the role of the flute had been established, the investigation turned to the tape part.

Emmerson (2007: 104–110) proposed that, when combining an acoustic performer with electronics, the composer had three choices: to use the instrument to reflect the world of electronic sounds, to use the electronics to function as an extended version of the instrument, or to contrast the instrument and electronics against each other. In light of Emmerson's categorisation, I chose to explore ways in which, in responding to the text, the function of the electronics might change during the course of *Two Old Irish Poems*. Initially, samples of voice and flute were combined, so that the tape became an intermediary between the two performers. In the first movement, each tape

attack begins as a vocal sound and metamorphoses into the sound of the flute, transforming the linear melodic characteristics into chords and creating a reservoir of material. In the second movement, the flute plays embellished, often transposed versions of the vocal line of movement one, with the order of most phrases reversed to create a palindromic effect. The flute instigates material which is subsequently developed by the tape, as in bars 36–37, where the tape voice mimics the flute's breath tone and flutter tongue. Yet the music remains grounded in the intervallic characteristics of the opening movement, with the re-use of the 'int én bec' motif to provide a sense of closure at the end of the movement.

In the final movement, the flute becomes largely independent of the voice, playing music which, although based on similar intervallic material, covers a much wider range than that of the singer. For the first time, the tape instigates pitches, such as the A3 in bar 94 and the A^b3 in bar 100.¹ At the end of the piece, the word 'luin' (blackbird) is set to a version of the three-note melodic cell from the first movement. The reintroduction of this motif refers to the medieval Irish literary idea of the 'dunad' (closure), whereby the first word of a poem was repeated at the end.

Ginnungagap

In contrast to the short texts that formed the basis of *Two Old Irish Poems*, the next project began with a tenth- or eleventh-century Old Norse poem known as *Völuspá*. The initial research question concerned the ways in which an early medieval narrative poem might inform the musical development of a composition. A second research question concerned the role of a large ensemble in such a work. Four verses were selected from the poem, forming a narrative which spanned the beginning of the world, its conflagration and renewal.

¹ All references to pitch use Scientific Pitch Notation (Lloyd and Rastall, 2016: online), in which a number identifies the octave of a given pitch. Thus a pitch of 55 Hz (A) is represented as A1, and a pitch of 440 Hz is represented as A4.

After analysing the text, a vocal line was created, developing intervallic responses to the poem's patterns of alliteration. In order to include both melismatic and syllabic treatment of words, the intervallic representation of alliteration is sometimes extended to the second syllable of a word (as in bar 3).

Example 3.2 Preliminary vocal line of *Ginnunagagap*

The musical score for 'Ginnunagagap' is presented in a single system with multiple staves. The tempo is marked 'Misterioso' with a quarter note equal to c. 50. The key signature has one sharp (F#). The score is divided into measures 1 through 20. The lyrics are written below the notes, with some words spanning across measures. Annotations in boxes highlight specific alliterative patterns:

- alliterating vowels - descending 2nds (minor and major)**: Points to the first staff, measures 1-4.
- 's' alliterates with the last word of the previous line - pitch (B4) is reiterated to mark alliteration**: Points to the second staff, measure 4.
- alliterating 's' - descending minor 2nd / ascending major 7th**: Points to the second staff, measures 5-8.
- alliterating vowels ('jö', 'æ' and 'u') - interval of a semitone**: Points to the third staff, measures 9-12.
- A**: A bracketed annotation above the third staff, measures 13-16.
- alliterating 'g' - semitones**: Points to the fourth staff, measures 17-20.
- alliterating 'f' - major 2nd / minor 2nds**: Points to the fourth staff, measures 17-20.
- alliterating 'f' - ascending intervals**: Points to the fifth staff, measures 21-24.

The lyrics are:
 1. Ár var al - da þar er
 5. Ý - mir bygg - ði va - ra sandr né sær né sva -
 9. - - - lar un - nir Jörð fannsk æ - va, né upp - hi - minn
 13. gap var gin - nun - ga, en gras hver - gi
 17. Geyr Garmr mjök fyr Gní - pa - hel - li, festr man
 20. slit - na en fre - ki ren - na Fiöld veit hon frœ - ða fram sé ek len - gra

23 **B** **alliterating 'r' - reiterated E5** $\text{♩} = \text{c. } 60$

um rag - na - rök römm sig - ti - va. Sól

27 **alliterating 's' - descending intervals**

tér sort - na, sigr fold í mar,

31 **alliterating 'h' - ascending intervals** f mp 3

hver - - fa af him - ni hei - ðar stjör - nur, gei-sar

35 **alliterating vowels - semitones** mf f **alliterating 'h' - minor 2nd / major 2nd** ff ppp 3

ei - mi við aldr-na-ra, leikr hár hi - ti við hi - min sjál-fan. Sér

41 **alliterating 's' - ascending minor 2nds** pp 3 **alliterating vowels - descending minor 2nds** pp p **alliterating vowels - major 2nds / diminished 8ve** p

hon upp ko - ma öð - ru sin - ni jörð ór

45 **alliterating 'f' - minor 2nds** mp pp p 3 $> pp$

æ - gi ið - ja - grœ - na. Fál - la for-sar, flý - gr örn y - fir,

50 **alliterating 'f' - descending intervals** pp 3

sá er á fjal - li fí - ska vei - ðir.

Example 3.2 shows a variety of approaches to alliterating syllables, including the use of the same interval (bars 11–12), major and minor versions of an interval (bars 2, 3 and 5), ascending or descending intervals (bars 52–53), repeated notes (bars 23–24) and the juxtaposition of contrasting intervals (bars 44–45, where major seconds are contrasted against a diminished octave). At ‘A’, ‘B’ and ‘C’ previous correspondences between alliteration and interval are intentionally avoided. This was to draw attention to moments of dramatic intensity at the end of verses, where the text refers to images of chaos and destruction.

Having written a vocal line, the next stage was to consider the role of the orchestra. The varied, colourful writing of Alban Berg’s *Fünf Orchesterlieder* (1953), composed in 1912, provided an invaluable early twentieth-century example of the combination of mezzo-soprano and orchestra. In addition, Jonathan Harvey’s *White as Jasmine* (1999) illustrated the ways in which a rich orchestral spectrum of harmony and timbre might support the setting of an ancient text. In *Ginnungagap*, the orchestra was used to reflect aspects of the text’s structure and imagery. Thus the poem’s cyclical narrative gave rise to an equivalent musical form, whereby the opening section of the piece (to letter B) and ending (from letter E) used very similar material with analogous orchestration. Similarly, the vivid image of the earth sinking into the sea, as steam and flames rise into the sky, gave rise to repeated, overlapping instrumental phrases (from letter D), to represent the idea of a vortex. When considering the text’s narrative of birth, destruction and renewal, the central image of breath was illustrated by the use of air sounds in the wind and brass instruments, as in bars 1–3. The relationship between orchestration and poetic imagery in *Ginnungagap* was a stimulus in the development of subsequent instrumental works.

ii. Works without Voice

When discussing the question of meaning, Patel drew attention to *leitmotifs* and to the context in which a musical idea is presented, noting that ‘instrumental music lacks specific semantic *content*, but it can at times suggest semantic *concepts*’ (Patel, 2008: 328). This raised the question of whether a text’s semantic content might provide sufficient musical material for an instrumental piece. In response, *Argatnél*, *Ildathach* and *The Deirdre Prophecy* were composed.

Argatnél

Argatnél arose in response to a verse from the eighth-century Irish text *Immram Brain*. The composition began with a clarinet line of four short phrases, with each phrase representing a line of the stanza. These phrases formed the harmonic basis of subsequent material. The poem’s depiction of two separate, coexisting layers of reality gave rise to low pitched, chromatic material (as in bars 13–14 and 19–20) in the low woodwind, trombone, marimba, harp, piano and strings, contrasted against sustained strings and higher material for piano, harp and vibraphone (as in bars 17–18 and 22–24). The woodwinds’ linear polyphony moves freely between both types of material.

The poem’s idea of separate yet coexisting layers led to the consideration of the fluid, permeable boundary between materials, implied by the text’s watery imagery. As iterations of the two types of material become progressively shorter (from letter B) and the pitch range decreases, the music acquires a more homogeneous quality which is disrupted by the introduction of the muted brass in bar 45. At F, the reintroduction of material that is similar to sections A and B was intended to re-establish the poetic image of a layered reality, albeit in a continuous, undulating form. Microtonal material at G, followed by harmonics and *sul ponticello* strings, alludes to arrival in the ‘otherworld’ or ‘Argatnél’ (silver cloud) of the poem.

Ildathach

The symbolic relationship between music and text in *Argatnél* led to the further separation of a musical idea from its textual impulse, in order to view the idea from different perspectives. The resulting piece became *Ildathach* ('many coloured', a synonym for the 'otherworld' of *Immram Brain*), which began with a clarinet multiphonic based on D3. Taking the multiphonic as a representation of the 'otherworld', a harmonic framework based on the harmonic series of D was drawn from the rich, unstable spectrum of the clarinet note. This harmonic idea formed the basis of a repeated melodic line (as in bars 10–20 and 48–58), while section B concentrated on an exploration of bass sonorities, juxtaposed against fragments of the melodic line.

The Deirdre Prophecy

After the abstraction of *Ildathach*, the next composition returned to the question of the role of narrative, examining the question in the context of a dramatic text involving several characters. Harrison Birtwistle's approach to mythological subject matter and Classical literature served as a useful example. Birtwistle's *The Corridor* (2009) was based on the moment when Orpheus turns to face Euridice. Birtwistle described how 'the whole piece is based on just this one event, magnified, like a photographic blow-up' (Birtwistle, 2009: programme note). Moreover, Beard (2012: 346) drew attention to the ways in which onstage musicians in *The Corridor* play an active role in the narrative, sometimes answering questions by responding musically. When examining the research question, I began by focusing on a pivotal moment of drama from the ninth-century Irish tale *Longes mac n-uislenn*.

In developing a musical response to a frozen moment of narrative, a repeated, oscillating glissando around G sharp, played by the horn (e.g. bars 10–12 and 21–23) was used to represent the Irish text's central idea of an unborn child's scream. Shortly after the first appearance of this material, the idea of a crowd of voices was represented by linear material in the flute and violin.

The flute and violin lines were reminiscent of a fully notated version of the horn's oscillation, thereby referring to the way in which the child's scream was central to the narrative thread. At C, a clarinet line emerged as a representation of the druid's prophecy in reaction to the scream. This line is subsequently coloured by the addition of the piccolo and vibraphone, until the clarinet retreats back into the 'crowd' material at E.

In answering the research question, *The Deirdre Prophecy* was almost entirely dependent upon linear ideas. Although polyphony had been integral to my previous compositions, Cross's discussion of Birtwistle's music drew my attention to the ways in which line might imply a sense of dramatic stasis. When describing how Birtwistle's *Gawain* (1990–2013) is apparently built on a fundamental melodic line, Cross stated that:

His music is always in motion, is in a constant state of flux, and yet it rarely arrives fully at a definitive destination. The image of the frozen moment is an apt one: motion within the context of something essentially static. (Cross, 2000: 202)

This idea was to prove invaluable to the development of a static drama in *The Difference Between Us*.

iii. Electroacoustic Works

My supporting instrumental compositions had largely avoided the sound of the spoken text. Yet numerous works of other composers suggested that spoken text could provide a rich vein of material. For example, Mâche's *Le son d'une voix* (Mâche, 1963), which was based on a sonogram analysis of a work by the twentieth-century French poet Paul Éluard, is one of a number of compositions based on related methods. Similarly, Harvey's *Speakings* (2008) drew on the analysis of speech, creating music which Harvey described as sounding 'as though the orchestra is learning to speak' (Harvey, 2008: online). However, both of these examples largely ignore the semantic

context of their texts. Mâche even asserted that, when using a model based on speech, the model would be deprived of linguistic meaning ‘as a matter of course’ (Mâche, 1992: 186). Since the aim of *The Difference Between Us* was to explore both the sound and meaning of untranslated texts, the methodology suggested by Mâche would fail to address my research questions in full. In order to explore a more direct approach to the sound of a text, three electroacoustic works were created from spoken and sung samples of early medieval poetry.

Ungelīc is Ūs

Rather than viewing a poetic image from different perspectives, as in *Ildathach*, *Ungelīc is Ūs* stemmed from the question of whether it might be possible to consider an entire text from different viewpoints. This approach was, in part, inspired by Boulez’s discussion of the varieties of musical commentary that might arise in response to a poem. Boulez’s statement that ‘musically speaking there are two times, one for the poem as action and one for the poem as reflection’ (Boulez, 1986: 196) stimulated ideas about musical meditation on a text. In developing my response, material from *We Are Apart; Our Song Together* was reused, building on the idea of the metaphorical relationship between gestures with a clear vocal origin and more abstract material reminiscent of wind or waves.

In order to move beyond an exploration of the text’s landscape, my investigation into paraphrase turned to the other, non-speaking characters of the poem; the man (or men) referred to as Wulf and Eadwacer, and the woman’s child. In order to allude to the idea that these characters exist as memories within the singer’s mind, they were created from transformed samples of the mezzo-soprano’s voice. The process of transformation began with a sequence of descending phrases beginning around 2’34”. At 4’42”, the words ‘gehȳrest þū’ (‘do you hear’) are transposed to the range of a bass, beginning on a pitch A[#]2. Material is similarly transposed and filtered until the end of this section at around 8’08”. As the poem makes only a single, fleeting reference to the child, the

representation of its voice is signified briefly by high, filtered transpositions of vocal samples, such as the sustained E6 from 7'25" to around 7'35".

Having considered the text's landscape and its principal characters, my attention turned to the relationship between the form of the poem and that of the piece. The text contains a distinctive refrain, 'ungelīc(e) is ūs' ('we are apart' or 'there is a difference between us') which reinforces both the structure and elegiac mood of the poem. Using the spoken rhythm of these words, the phrase was recomposed using a mixture of consonant and breath sounds, creating a motif which is heard at 30", 1'01", 1'59" and 8'06. Versions of this motif, constructed from vocal samples of definite pitch, are heard from 8'30" until 9'50". Towards the close of the work, as the piece dissolves into spoken text, the words 'ungelīc is ūs' mark the ending.

Although the investigation into paraphrase focused on the form and content of the text, the processing and transformation of samples yielded an unexpected result, in the form of sounds with a particularly rich harmonic spectrum. Analysis of these sounds led to the development of chords and timbres based entirely on their harmonic spectra, such as around 5'29", 6'04" and 7'03". This in turn facilitated a move away from the constant use of equal temperament, laying the foundations for the development of microtonal writing in *The Difference Between Us*.

A Travelling Spirit

The allusion to different voices in *Ungelīc is Ūs* had created a piece which might be regarded as a projection of the poet's thoughts and memories. In the context of the piece, the presence of disembodied voices was justified within the imaginary sound world of the poet's mind. However, Emmerson drew attention to the complexities surrounding the use of the human voice in electroacoustic music:

Human presence in acousmatic music is often fundamentally frustrating even when joyous and celebratory rather than threatening or cruel. It represents a displaced

“other” – the other side of an impenetrable curtain. We hear (and hence observe) but we cannot communicate back. This will increase our unease – our frustration even.
(Emmerson, 2007: 80)

As a result of Emmerson’s comment, the next research question concerned the relationship between early medieval text and the disembodied nature of the electroacoustic voice. Beginning with an Old English riddle about a swan, slowed and transposed samples of consonants were used to allude to the text’s images of clouds, air and water. At the beginning of the poem, the singer’s voice is heard in its untransformed state. However, at the moment at which the voice is about to utter the words ‘and swinsiað’ (‘and sings melodiously’) around 2’35”, the clarity of the words is lost. The voice dissolves into resonant, harmonic ideas juxtaposed against transformed consonant sounds. Thus the electroacoustic piece itself becomes a riddle in relation to the disembodied singing voice.

The Seeress

In *Ungelīc is Ūs* and *A Travelling Spirit*, material derived from samples of singing had been used to create sustained notes and chords. Both works place significant emphasis on melodic lines and harmonic relationships, to the extent that they might be regarded as electroacoustic realisations of the methods employed in my instrumental and vocal works. In order to investigate a different approach, *The Seeress* focused on the relationship between a single melodic line and sounds of indefinite pitch. It began as an arrangement of *Ginnungagap*, in which the orchestra was replaced by samples of speech, consonants and the singer’s breathing. At 4’43”, a cycle of transposed vocal material was an attempt to allude to the idea of a vortex as expressed in section D of *Ginnungagap*. However, the use of a continuous melodic line, combined with little or no fragmentation in the accompanying vocal samples, resulted in a piece with a rather uniform character. A collage approach to the text’s phonemes might have yielded a greater variety of results, as in the example of the paraphrase employed in *Ungelīc is Ūs*. While *The Seeress* was an invaluable study into the use

of material of indefinite pitch, its composition suggested the importance of a variety of approaches to text in *The Difference Between Us*.

iv. The Death of Odin

Before embarking on *The Difference Between Us*, a preparatory, small-scale chamber opera was composed, based on the relationship between the early Scandinavian god Odin and his sons, Baldr and Thor. Excerpts from the Old Norse poem *Hávamál* ('Sayings of the High One'), from the thirteenth-century Scandinavian manuscript known as the *Codex Regius*, were included alongside a text in modern English by interdisciplinary artist Josh Armstrong.

The principal research question concerned the ways in which the musical treatment of the Old Norse text might facilitate the exploration of characters' relationships. The excerpts from *Hávamál* were initially written as a duet between the tenor (Thor) and countertenor (Baldr). However, when Baldr sings in Old Norse from letter D, his brother's voice is replaced by the clarinet. Similarly, when Thor sings in Old Norse from letter L, his material resembles a transposed version of the clarinet line from letter D, whereas the accompanying 'cello line at bar 185 is similar to the countertenor's line from bar 69.

Despite the brothers' kinship, they are unable to communicate directly with each other, to the extent that instrumental lines act as surrogates for their unvoiced dialogue. Thus in bars 60–111, 'cello and clarinet lines are based largely on the material sung by the tenor and countertenor in Old Norse. The idea of using vocally derived material to allude to issues of communication and relationship became a central aspect of *The Difference Between Us*.

IV. The Difference Between Us

In *The Death of Odin*, the juxtaposition of a modern English text against early medieval poetry raised a number of questions regarding intelligibility, narrative and communication. Informal feedback from audience members and performers had shown me that, even without the aid of programme notes, a work such as *We Are Apart; Our Song Together* could convey a sense of strong emotion. This idea was summarised by Salzman and Desi:

The singing voice actually does not need words to produce strong emotional impressions. The fact is well demonstrated by the popularity—in opera and also in pop music—of singing in a foreign language. It is also demonstrated by the paradoxical case of words in which nothing semantically intelligible is said, but we seem to understand something quite precise nonetheless. (Salzman and Desi, 2008: 141–142)

However, in my supporting works, the rich semantic content of untranslated texts had informed many compositional approaches. Thus the compromise between contemporary and medieval text would be central to the musical material of the final work.

In response to this compromise, one option might have been to treat early medieval text as sound poetry with musical accompaniment. Despite the conceptual difference between a medieval text and a newly composed sound poem, a listener with no prior knowledge of the text would not necessarily recognise the difference. The precedent for pure vocalisation might be traced back to essays by Luigi Russolo, published between 1913 and 1916, in which he advocated the use of phonemes and vocal mimesis (Russolo, 1986: 56). Similarly, Cowley drew attention to numerous subsequent works based on the performance of speech sounds, ranging from Schwitters' *Ursonate* (Schwitters, 2001), which was first performed in 1925, to examples of Futurism, Dada, lettrism and sound poetry (Cowley, 2002: 193–207). The idea that a pseudo-language might create a timeless environment for the musical exploration of interpersonal relationships was discussed by Anhalt

(1984: 41) in relation to Ligeti's *Nouvelles Aventures* (1966). In the context of my final project, Ligeti's approach might have suggested a model whereby a medieval epic poem could be arbitrarily divided between singers. However, music based entirely upon the sound of untranslated text would have risked bypassing the stimulating dichotomy between sound and meaning which was at the core of my doctoral investigation.

Having decided not to transform an untranslated medieval text into a libretto, the relationship between text and musical material was still in question. When developing my approach, Saariaho's *L'amour de loin* (2000) and Harvey's *Wagner Dream* (2006) were invaluable examples of works that included untranslated early languages that were framed by a modern text. In *Wagner Dream* (Harvey, 2006), the Pali language is used during Wagner's vision before death. Similarly, in *L'amour de loin* (Saariaho, 2000), Occitan texts relate to reverie and contemplation. The idea of creating a scenario in which untranslated text might allude to a character's introspection and reflection became integral to the final project.

The form of the main composition arose after considering the supporting works in relation to the pieces mentioned above. Taking *We Are Apart; Our Song Together* as the starting point, *The Difference Between Us* became an exploration of the poem on which the work was based. Whereas the electroacoustic work *Ungelīc is Ūs* had sought to give voice to different characters mentioned in the poem, the final project took this process further, by adding two singers on stage with the mezzo-soprano. Drawing on early medieval texts from a roughly similar period, a pseudo-historical scenario was created. The warrior, whom the Anglo-Saxon woman refers to as Wulf, became a Welsh-speaking soldier from the area around Edinburgh. He is given poetry from the Early Welsh epic *Gododdin*, which describes a seventh-century battle between the Anglo-Saxons and the Welsh-speaking inhabitants of northern Britain. The man referred to as Eadwacer became an Irish ex-soldier. He represents the medieval Irish character of Suibhne Geilt, a man who became so traumatised during battle that he was unable to reintegrate into society. According to the Irish

literary tradition, he fled from the seventh-century battle of Mag Rath, spending the rest of his life wandering in Ireland and Britain. The structure of the work can be summarised as follows:

Figure 4.1 The structure of *The Difference Between Us*

Central character / Section	Bar Number	Singer	Principal language / text	Orchestration
Geilt (countertenor)	1–53	Geilt	Modern English	ensemble
	53–110	Geilt	Early Irish (<i>Buile Suibhne</i>)	ensemble and electroacoustic fixed media
Guma (baritone)	111–138	Guma	modern English	ensemble (electroacoustic fixed media from previous section fade out in bar 111)
	139–165	Guma	Early Welsh (<i>Gododdin</i>)	ensemble and electroacoustic fixed media
Gwên (mezzo-soprano)	166–209	Gwên (Geilt in bar 205–208)	English	ensemble
	210–362	Gwên	Old English (<i>Wulf and Eadwacer</i>)	ensemble and electroacoustic fixed media
Geilt (countertenor)	363–404	Geilt	Modern English	ensemble

In addition to facilitating the musical treatment of three different, broadly contemporaneous languages, the scenario provided a rationale for the inclusion of early medieval poems in their original, untranslated form. The idea of fractured relationships, emphasised by the refrain ‘ungelīc

is *ūs* ('we are apart' or 'there is a difference between us'), is at the heart of the Old English poem on which the work is based. Sheppard (2001: 161) drew attention to the way in which an unfamiliar language text might create a sense of separation and distancing, as with the use of Latin in works such as Goehr's *Naboth's Vineyard* (1973) from his music theatre piece *Triptych* (1973–1976). In my final work, the idea of separation, resulting in a failure to communicate, became central to the scenario. The singers move into early medieval poetry precisely when they attempt to communicate with each other, irrespective of the fact that each character represents a different linguistic culture. Thus the audience hears the poetry in a similar way to the character to whom the poetry is addressed.

Having decided on the use of text in the work, the next stage was to determine the role of electronics. Sheppard's discussion of separation led to considerations of the ways in which electronics might emphasise the idea of distance engendered by an unfamiliar language (Sheppard, 2001: 161). Consequently, electronics were used only to introduce and accompany moments of untranslated poetry. This led to the creation of three, distinct sections for voice and electronics: bars 50–111, section C and section E (*We Are Apart; Our Song Together*). In *We Are Apart; Our Song Together*, samples of speech and song in Old English had formed the basis of the tape part, functioning as an extension of the singer's inner monologue. By extending this approach to all of the untranslated poetry in *The Difference Between Us*, the intention was to frame the poetry in the context of the mezzo-soprano's thoughts. Whereas the electroacoustic piece *Ungelīc is Ūs* had created multiple, lower voices from the mezzo-soprano's material, *The Difference Between Us* juxtaposed electronically transformed lower voices with actual singers. Words and vocal material in a baritone register are first heard in the electroacoustic part in bars 108–110, preceding the entry of the baritone at letter B. Moreover, transformed samples of the mezzo-soprano's voice are used to allude to air and water sounds, as in section E (*We Are Apart; Our Song Together*), the bars preceding the baritone's entry at B, and section C. By drawing on a common reservoir of

electroacoustic materials, the intention was to locate all three singers in the same imaginary landscape. Causton drew attention to the way in which electroacoustic music tends to engender mental images, thereby invoking aspects of theatre in the mind of the listener (Causton, 1995: 17). Thus in the context of *The Difference Between Us*, the electronics might serve as a type of auditory scenery.

Once the role of the electronics had been decided, the next stage was to determine the purpose of the instrumental ensemble. One option would have been to abandon the ensemble in favour of electronics. In Tod Machover's opera *Valis* (1987), just two instrumental performers and a huge variety of electroacoustic technology were used 'to express psychological states, intellectual ideas, and emotional reactions through music' (Machover, 1988: CD notes, 13). Moreover, Machover (1986: 203) stated that his goal was to create a sound world in which all the material was ultimately derived from the voice. However, in instrumental works such as *Argatnél* and *The Deirdre Prophecy*, my response to early medieval text had resulted in a linear, polyphonic style of instrumental writing that was directly related to the texts' thematic content. Thus my approach led instrumental lines to acquire similar characteristics to the voice, to the extent that, in *The Difference Between Us*, instrumental lines often shadow the singers. This occurs throughout the work, beginning when the clarinet shadows the countertenor from bar 10.

However, if all the instrumental lines were to copy the voices, the resulting ensemble writing had the potential to become very homogeneous. To some extent, homogeneity was in keeping with the idea that the entire scenario played out in the mind of the mezzo-soprano. Nonetheless, the three singers were each assigned very different excerpts of medieval poetry, suggesting a contrasting characterisation for each singer. In order to differentiate the singers' material, a key research question concerned the ways in which pitch and harmony might respond to the untranslated text that formed the basis of each character's persona.

In the case of the Old Irish poetry, there was a striking contrast between the first stanza's image of a wild stag, and the second stanza's flashback to the midst of battle. When considering how to reconcile these two ideas, Harvey's *Passion and Resurrection* (1998) served as an example. Harvey described how, in this 'church opera', 'each character is accompanied by a halo more or less bright according to his sanctity' (Harvey, 1998: preface). In *The Difference Between Us*, the idea of a sonic halo is used to create a distinctive sound world for the countertenor. As Geilt is the only character whose music is based on microtonal material, the intention was to allude to the way in which his traumatised state has caused him to inhabit a different reality.

Example 4.1 Harmonic series based on D1: Partial 1–50 (to the nearest quarter tone)



Microtonal pitches are predominantly assigned to the synthesiser and electronics. Thus the altered reality of Geilt's mental state, as implied by the microtonal material, is further emphasised by the disembodied, somewhat artificial quality of electronically-reproduced sounds. When the countertenor voice enters in bar 10, the vocal line is centred on the equal temperament pitches of the simplified harmonic series shown in example 4.1. Deviations to the nearest semitone generally occur in the context of stepwise embellishments to a line, such as the countertenor's C5 appoggiatura in bar 12. The halo idea is represented by a synthesiser, tuned a quarter sharp and

programmed to sound like a harp, combined with an actual harp. From bar 24, the vibraphone (played with mallets) is added to the harp and synthesiser combination. Until bar 31, the strings predominantly play slow, sustained glissandi, incorporating microtones from the halo idea. However, from bar 26, the addition of a C4 marks the point at which the sound world begins to change. In bars 26–53, notes with a more distant relationship to the harmonic series continue to be added.

The change in the sound world marks the point at which the countertenor's words change from a contemplation of the natural world to memories of battle. A similar change occurs during the section of medieval Irish text from letter A. From letter A until bar 86, vocal material is closely based on the equal-tempered pitches of the simplified harmonic series. The halo idea is formed from the combination of harp, vibraphone, microtonal synthesiser, some sustained strings and electroacoustic sounds made from vocal samples. The electroacoustic material reiterates many of the microtonal pitches played by the synthesiser, producing sustained chords in order to reinforce the idea of a sonic halo around the voice. However, from bar 90, the singer's incitement to 'gonaid, marbaid, airligid' ('kill, slay, slaughter') introduces a change of mood, similarly marked with the addition of new pitches, such as the C4 in bar 93. Moreover, from bar 87, the electronics include transformed vocal samples of lower pitch, alluding to the baritone's material in the following section.

The electronics' reference to the baritone was a deliberate attempt to link the music surrounding Geilt's description of battle with the material of the baritone, Guma, from letter B until bar 165. When considering how the early Welsh text might provide pitch and harmonic material for Guma's music, the contrast between the two men formed the basis of the musical treatment. Despite its elegiac tone, the verse from *Gododdin* differs strikingly from Geilt's references to battle, which are generally in the context of fear and flight. To reflect the idea that Guma, the serving soldier, is in some ways the antithesis of Geilt, Guma's vocal line is based on an inversion of a harmonic series

on D. In order to emphasise the opposition between the traumatic unreality of Geilt's mental state and the brutal reality of Guma's sense of loss, Guma's material is not microtonal and is corrected to the nearest semitone.

Example 4.2. Inversion of harmonic series based on D (to the nearest semitone)

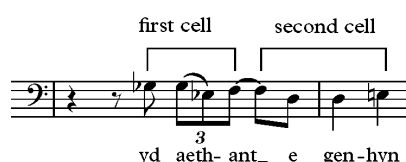


However, for pitches lower than E3, the inverse harmonic series becomes a chromatic scale, albeit with some repeated notes. To avoid the potential monotony of a vocal line made entirely of stepwise movement, some long notes, such as C4 in bars 114–115, function like an internal pedal point. Similarly, the frequent occurrence of certain pitches in both the vocal and instrumental writing, such as E3, informed the overall harmonic structure in bars 111–165.

Having considered the musical connections between the baritone and countertenor, the investigation turned to possible relationship with the mezzo-soprano's vocal line. Since the baritone personifies the 'Wulf' of the mezzo-soprano's Old English text, the relationship between the characters portrayed by the baritone and mezzo-soprano might be regarded as central to the work. To enable Guma's vocal line to allude to this relationship, intervallic material was re-appropriated from the mezzo-soprano's Old English poem in bars 210–362. In particular, a motivic cell comprising a minor third and a major or minor second, referred to as the 'Wulf motif' in Chapter

One, was transferred from the Old English vocal line to the early Welsh poem. From bar 139, Guma's vocal line contains a number of examples of material derived from this motivic cell. At times, the order of intervals is changed, as in bars 141–143, in which a descending minor second is followed by a descending minor third. In places, multiple cells are elided together, as in bars 143–144, in which the F natural of '–ant' forms both a major second with the preceding E^b and a minor third with the following D[♯].

Example 4.3 Melodic cell in bars 143–144



As a result of these processes, the baritone line and its surrounding polyphony become related to ideas drawn from the Old English and early Irish characters.

The borrowing of a melodic cell from *We Are Apart; Our Song Together* (section E of *The Difference Between Us*) draws attention to other instances of re-appropriation regarding the mezzo-soprano's modern English text. This generally occurred when the modern English words expressed a similar sentiment to a corresponding Old English phrase. For example, the words 'passion burned' in bars 176–177 follow the same melody as 'wēna mē þīne' ('my longing for you') in bar 312. In other instances, the melodic line of the modern English text is based on a freer reworking of the Old English musical material. For example, in bars 168–173, the modern English phrase the same pitches as the first half-line of the phrase 'Wulfes ic mīnes wīdlāstum / wēnum dogode' ('I endured far-wandering hopes of my Wulf'), in bars 261–264. A similar example can be seen by comparing bars 182–185 ('the war which bound our lives together') with 'þīne seldcymas' ('the infrequency of your visits') in bars 314–315.

Following the mezzo-soprano's section, the countertenor takes over from bar 363 until the end. His vocal line draws on the same material that informed the opening section of the piece until bar 100. Since his characterisation is the same, the relationship between the vocal line and the text is similarly unchanged. From bar 395, the mood of the text moves from anxiety to a state of peaceful reflection, returning to the appreciation of the natural world that characterised Geilt's opening words about the blackbird's song. At this point, the violin doubles Geilt's line at the interval of the twelfth, further reinforcing the idea of the sonic halo created by the vibraphone, harp, synthesiser and sustained viola and 'cello from bar 393.

Thus far, the discussion of pitch, harmony and text has focused on material derived in response to the emotional content of medieval and modern English texts. However, the question of whether musical material might reinforce poetic techniques such as rhyme and alliteration was crucial to the composition of the untranslated sections of *The Difference Between Us*. For example, the early Irish poetry in bars 74–100 drew on the approach to alliteration developed in response to the Old Norse poetry of *Ginnungagap*. However, whereas the irregular poetic form of the Old Norse stanzas led to an intentionally inconsistent representation of alliteration, the tightly structured Irish poetry resulted in a more uniform approach in *The Difference Between Us*. This was done in order to develop a distinction between the musical treatment of the untranslated poetry and modern English texts. In the context of the early Irish poetry, alliterating 'b's in bars 75, 77, 79, 80 and 82 are represented by an ascending major second. The rhyming final syllables in bars 75, 77, 79 and 84 are reinforced with a minor second semiquaver motif, similar to an upper or lower mordent. The reiterated, vocative 'a' ('o') in bars 74–75, 76–77 and 78 is represented by a lengthened note followed by one or more lower pitches. The rhyming words 'binn', 'linn' and 'glinn' in bars 80, 82–83 and 86 are marked by an ascending whole tone followed by a descending interval of three semitones, albeit with an octave displacement in the case of the word 'linn'. Similarly, the rhyming words 'eill' (bars 93–94) and 'beinn' (bars 99–100) are set to an ascending major second. The

alliterating words ‘cuirid’ and ‘cid’ (bars 94–95) are marked by descending seconds. However, the alliteration of these words with ‘chin’ is not marked. Instead, the rhyme between ‘chin’ (bar 96) and ‘bir’ (bar 98) is marked by placing both syllables on an initial D4. Moreover, the alliteration between ‘bir’ and ‘beinn’ (bars 98–100) is represented by an ascending major second.

The treatment of early Welsh poetry in bars 139–158 was stimulated by the same research question as for the Irish material. Thus the rhyming final syllables of ‘dydaruu’, ‘llu’, ‘dru’ and ‘dyuu’ in bars 149–158 are marked with a descending major second. Similarly, the alliterating words ‘llurugogyon’, ‘lleith’, ‘lletkynt’, ‘llwyded’ and ‘lleas’ in bars 144–149 are marked with an ascending major second, either in the form of a melisma or with the following syllable. In a number of instances, the vocal line reflects textual patterns which do not belong to the poem’s rhyme scheme. For example, in the first line of the Welsh poem, the similar sound of the final syllable of ‘winveith’ and ‘medweith’ and the first syllable of ‘aethant’ (bars 140–143) is emphasised by a descending minor third. Moreover, the similarity between the final syllable of ‘catraeth’ and ‘fraeth’ (bars 150–151) is represented by the same intervallic material, transposed down a tone and with a similar rhythm.

Once the relationships between vocal lines and early medieval text had been examined, it was necessary to explore the relationship between the text and the instrumental ensemble. In order to evaluate this question, initial investigations considered whether a single instrument might provide a thematic link between the three characters. The clarinet and bass clarinet were chosen because of their wide range and distinctive timbre. From the beginning until bar 86, the clarinet shadows much of the countertenor’s material. In bars 109–132, the bass clarinet plays a similar, shadowing role when the baritone sings in modern English. In bars 168–208, the b-flat clarinet again follows the lines of the mezzo-soprano and countertenor. However, this pattern is deliberately broken when the baritone sings his elegiac, early Welsh war poem (bars 139–158) and the shadowing role is taken over by the horn. The horn is used again in this capacity in bars 362–380, where the countertenor

describes his memories of battle. Thus the horn reinforces the link between the early Welsh poem and the modern English depiction of the battle.

Having considered the use of instruments to shadow vocal lines, the investigation turned to the ways in which the ensemble might relate more directly to the sound of the untranslated poems. In order to explore this question, I drew on the methods described in the creation of *Two Old Irish Poems*, in which the flute imitated and sustained certain types of consonants. In bars 75, 77, 79 and 80 of *The Difference Between Us*, the flute plays an accented breath tone, marked by a triangular notehead, at the same time as the singer articulates the stressed initial consonant [vⁱ] of words such as *bennáin* ('antlered one'). Similarly, in bar 83, the flute's accented breath tone corresponds to the breathy quality of the singer's consonant [xⁱ], while in bar 84, the flute's flutter tongue occurs simultaneously with the countertenor's rolled 'r'. In order to emphasise the distinctive sound world of the early Irish musical material, the instrumental imitation of consonants was used only in the context of bars 74 to 100, in which the countertenor sings in medieval Irish.

The flute's transformation of consonants led to considerations of the ways in which, rather than imitating vocal lines, the ensemble might contrast with the singers. At particular points, the ensemble material became more closely related to the electronics. Thus in bars 53–56, 88–89 and 100–102 the flute, oboe, clarinet and bassoon play multiphonics, in order to blend into the tape part as the electronics play a more dominant role. Moreover, the combination of woodwind 'air sounds' and wire brushes on the tenor drum, as in bars 210–223 was used in order to create an acoustic equivalent to some of the tape's sounds of indefinite pitch. However, a more striking contrast between the ensemble and singers was explored by developing instrumental material in response to the texts' underlying ideas. Thus when the baritone refers to his memories (from the end of bar 131), the ensemble plays a pattern of overlapping, repeating phrases until bar 139, to allude to the idea of a cycle of recurring thoughts. Similarly, when the countertenor describes his horrific memories (from letter F), the woodwind and upper strings play very quiet, rapid material which is

in contrast to the singer's slower, *mezzo-forte* line. The use of quiet, fast moving material arose in response to the idea of inner turmoil that was expressed by the singer's words.

The finished piece has a duration of approximately twenty-five minutes. Although each character's music was based on different pitch material, the singers' vocal lines and the associated ensemble writing showed a greater degree of homogeneity than I had initially expected. However, even more surprising was the fact that, far from hindering the development of the composition, similarities and cross-references between the different sections served to emphasise the characters' relationships. Despite the complex connections between the three singers, the finished piece is extremely static. The singers barely move from their position on stage. The sense of stasis, lack of dialogue and emphasis on situation rather than narrative might lead one to question whether *The Difference Between Us* is opera or, in fact, music theatre. Although such a question does not necessarily have a clear answer, I have chosen to refer to *The Difference Between Us* as an opera primarily because, unlike Clements' depiction of music theatre in *Grove Music Online* (Clements, 2016: online), music is dominant over both drama and spectacle in my work.

V: Conclusions

As my doctoral project began with the words of the mysterious Old English poem known as *Wulf and Eadwacer*, it seems fitting that these same words provided the foundations for the final composition. Yet in returning to this strange, ambiguous text, the supporting works of the intervening years had opened up new avenues through which to approach the project. Before a single note of the doctoral portfolio had been written, compositions such as Leroux's *Voi(rex)* (Leroux, 2002b) had suggested the use of musical models based on complex phonetic analyses. Leroux's descriptions of musical models derived from both visual and sonic elements of a text, including the calligraphy of certain letters, seemed to imply an almost limitless range of approaches to explore in my project (Leroux, 2002a: online). However, once I had started the doctoral investigation, the outcomes of my supporting works began to suggest a different direction. Early medieval poetry tends to follow regular patterns of rhyme, stress and alliteration, yet the words frequently express complex ideas and emotions which might seem at odds with the regularity of the spoken text. During the course of my doctoral work, the development of musical material based on a poem's emotional content became an important way to explore the meaning of untranslated texts. Electronics opened up many possibilities in this respect, facilitating the transformation of phonetic material in reference to a text's underlying themes.

Paradoxically, the juxtaposition of modern English text with untranslated early poetry proved to be a decisive factor in the development of the main doctoral composition. Rather than compromising the objectives of my study, the inclusion of modern English in *The Death of Odin* and *The Difference Between Us* facilitated a greater engagement with the untranslated medieval text. Modern English prose, with its absence of deliberate metrical patterns, enabled the development of vocal material that was much more independent of the text's sound. In contrast, the

musical treatment of the untranslated texts, with their fairly consistent systems of stress or alliteration, was set in relief by the framing sections in modern English. In *The Difference Between Us*, modern English established a scenario in which the semantic understanding of the untranslated texts was intentionally less important than the sound of the words and the performance of emotional intention.

The mention of emotion leads to the fundamental question of what one might hope to express when writing music based on an untranslated, early text. During the course of my doctoral project, my response to this problem has varied, ranging from the idea of a lament in *We Are Apart; Our Song Together*, to a more abstract model based on a text's image or underlying concept in works such as *Ginnungagap* and *Argatnél*. However, the creation of the three electroacoustic compositions marked a critical point in relation to the question of expression. The inherent paradox of these works, in which voices are present yet physically absent, led to the exploration of multiple, evolving voices, culminating in *The Difference Between Us*. Anhalt (1989: 119) has drawn attention to the many dramatic possibilities engendered by using multiple singers to represent aspects of a single character. However, Chaya Czernowin's discussion of similar ideas has especial relevance to my future investigations into the many layers that exist within some early medieval poetry. Czernowin described how, in her work *Pnima... ins Innere* (2010), composed between 1998 and 1999, multiple singers and specific instrumental groupings are used to present the voices of the work's two characters (Czernowin, 2015: 453–454). This was done 'to look at the different and at times conflicting plural voices which exist within a single voice', in order 'to enact the processes underneath the character's mental states' (Czernowin, 2015: 453–454). In common with a number of her vocal works, *Pnima* uses textless vocalisation, which is combined with instruments in a manner that Czernowin described as the clearest way in which a person might express emotion (Dusman, 2015: 469–472). Although my work uses untranslated text rather than vocalisation, in

some ways it fulfils a similar function, since it enables the listener to focus on the sound and expression of the voice rather than on the meaning of individual words.

However, the focus on emotion did not mean that the textual meaning of untranslated poems was abandoned during the course of my project. In addition to allowing the development of multiple voices, electroacoustic compositions facilitated the process of commentary and paraphrase. In many ways, this approach echoes Boulez's statement that 'a poem around which music has crystallized can be, like a fossil, both recognizable and unrecognizable – both a core and yet absent' (Boulez, 1986: 198). However, whereas Boulez used texts in modern French, my use of early medieval languages means that the processes of listening and semantic comprehension are no longer simultaneous for the majority of the audience. Consequently, I began to see my approach to early medieval text as a sort of non-linguistic translation from one medium into another. In many ways, this re-appropriation of aspects of text into music mirrors Berio's statement that 'music is a further machine that amplifies and transcribes that meaning [of language] onto a different level of perception and intelligence – provided that it respects all the aspects of language, including the acoustic one' (Berio, 1985: 113). Rather than translating meaning of individual words, the texts' patterns of sounds, thematic ideas and metaphors are re-appropriated by pitch, duration and timbre in my music.

The idea of transcription in relation to the musical treatment of an early medieval text points to an issue at the heart of my doctoral project: namely, untranslated texts were used to express something which, as a complex of phonemes, emotions, metaphors and ideas, is fundamentally untranslatable. It was precisely this mercurial, untranslatable essence that stimulated my imagination as I worked towards *The Difference Between Us*. Adorno's statement that '[music] constantly poses a riddle, and yet, as nonsignifying language, never answers it' (Adorno, 1993: 410) lends a poetic beauty to the idea that an untranslatable text is itself re-appropriated by an abstract art form. Throughout the project, the often ambiguous, fragmentary and historic nature of the texts

provided invaluable creative friction when set against their timeless depictions of the human condition. Lucie Louvrier, the mezzo-soprano whose voice is the basis of most of my electroacoustic material, expressed similar thoughts regarding the use of early medieval languages in *The Difference Between Us*:

I find singing in Old English strangely liberating because I know people have to listen on another level. They have to let go of trying to understand and identify each word, and it seems to me that communication can then happen on another level – on a purely musical or humane level. What then binds us all is beyond words – although these same words and their sounds in an ancient language are the very vessel for this communication. (Louvrier, 12 February 2014: email)

The inclusion of a singer's perspective draws attention to the pivotal role played by the performers who enabled the realisation of my doctoral project. The process of working with performers on a range of issues, from pronunciation to the implementation of electronics, gave rise to solutions that influenced much of my subsequent work. Thus the mezzo-soprano's preference for audio cues in *We Are Apart; Our Song Together* resulted in the inclusion of recognisable vocal samples in the electronics part, which in turn influenced the development of my subsequent electroacoustic work. Similarly, the collaboration with a writer and director on *The Death of Odin* led to the juxtaposition of modern English and untranslated text that became the catalyst for *The Difference Between Us*.

It was not a matter of coincidence that the two pieces mentioned above turned into chamber operas. Before starting the doctoral project, initial ideas for a final work based on a song cycle had failed to provide satisfactory justification for the use of untranslated poetry. Preliminary experiments were tempered by concerns about creating music which might be perceived as deliberately archaic, exotic or alienating, or which might imply a condescending attitude towards the listener. In attempting to allay these concerns, the supporting works' varied instrumentation and use of electronics highlighted the importance of the musical context in which an untranslated text might be presented. Yet as Stacey (1989: 23) has noted, any analogies between a text and music are

dependent upon the specific musical context of the work in which such correspondences are established. The absence of sung text in instrumental works such as *Argatnél* meant that, for the listener, it was the title and programme note, rather than the music itself, which bore the responsibility for establishing the analogy between music and text. Although the instrumental works (*Argatnél*, *Ildathach* and *The Deirdre Prophecy*) were a necessary part of the investigation, the relationship to text was so abstract that these works served only to hone aspects of my compositional technique. Ultimately, the development of a dramatic, staged element provided a more interesting context for the musical exploration of early medieval texts. Moreover, in the process of devising a dramatic scenario for *The Death of Odin* and *The Difference Between Us*, untranslated early medieval text became central to the form and narrative of these works. The distancing effect of early medieval text was harnessed to become an integral element of the chamber operas.

The development of a multi-lingual chamber opera as a medium to investigate early medieval text was perhaps the most unexpected outcome of the doctoral project. Moreover, the inclusion of untranslated text within a modern English framework suggests further possibilities for works that might involve movement, dance, design and live electronics. While I expect my involvement with early medieval text to continue to develop, collaboration with other artists will be essential to the realisation of works that incorporate aspects such as staging and new technologies.

Although collaborative projects will constitute a proportion of my future work, it is composers, rather than writers or designers, who might derive the most from the outcomes of my doctoral work. A number of my research questions, such as the possible meanings that might be conveyed by an untranslated text, could apply to any compositional process that is based on extra-musical stimuli. Similarly, my exploration of the voice in electroacoustic music has ongoing relevance as the development of technology facilitates new compositional possibilities. Although my doctoral research only briefly touched on the role of the singer, there is the potential for further

research into the practical and philosophical issues that might confront a singer of early medieval text.

In the context of my continuing development as a composer, the process of answering successive research questions has led to a variety of works for different forces, culminating in a composition which drew on the outcomes of the supporting pieces. Moreover, the development of a theatrical element in the final two works was central to the overall outcome of my doctoral project. However, the compositional realisation of this outcome is entirely subjective and personal. In the hands of another composer, similar conclusions might yield strikingly different results. Yet the numerous possibilities offered by early medieval text make its use in contemporary composition so compelling. Throughout the doctoral project, the disjunction between ancient, untranslated poetry and contemporary composition has acted as a catalyst for compositional experiments. The difference between old and new generated a creative spark which will continue to sustain my work beyond the doctoral project. Rather than hindering comprehension, the untranslatable core of this project provided the very force which nourished it. In this context, the poem which formed the basis of my doctoral research is particularly apt. This text, which is arguably the most deeply personal Old English poem, was inspired not by unity but by difference. To quote the words of the anonymous woman who was their author, *ungelīc is ūs*.

Appendices

Appendix I: Anonymous Early Medieval Texts (translations by E. Hunt)

i. *We Are Apart; Our Song Together*

Text: *Wulf and Eadwacer* (Hamer, 1985: 82–85)

Lēodum is mīnum swylce him mon lāc gife;
 willað h̃ hine āþecgan, gif h̃ on þrēat cymeð.
 Ungelīc is ūs
 Wulf is on īege, ic on ōþerre.
 Fæst is þæt ēglond, fenne biworpen.
 Sindon wælrēowe weras þær on īge;
 willað h̃ hine āþecgan, gif h̃ on þrēat cymeð.
 Ungelīce is ūs.
 Wulfes ic mīnes wīdlāstum wēnum dogode;
 þonne hit wæs rēnig weder and ic reotugu sæt,
 þonne mec se beaducāfa bōgum bilegde,
 wæs mē wyn tō þon, wæs mē hwæpre ēac lād.
 Wulf, mīn Wulf, wēna mē þīne
 sēoce gedýdon, þīne seldcymas,
 murnende mōd, nāles metelīste.
 Gehýrest þū, Eadwacer? Ucerne earmne hwelp
 bireð wulf tō wuda.
 þæt mon ēaþe tōslīteð þætte nāfre gesomnad wæs,
 uncer giedd geador.

Translation:

It is as though someone gave a present to my people;
 They want to oppress him if he comes with a troop,
 We are apart (we are different / there is a difference between us). [*different possible translations]
 Wulf is on an island, I on another.
 That island is secure, surrounded by marshland.
 There are cruel men on the island.
 They want to oppress him if he comes with a troop.
 We are apart.
 I endured far-wandering hopes of my Wulf;
 When it was rainy weather and I sat, mournful,
 Then the one bold in battle laid his arms around me,
 There was joy to me in that, but it was also hateful.

Wulf, my Wulf, my hopes of you caused me to fall sick,
 Your infrequent visits, a mourning spirit, not at all lack of food.
 Do you hear, Eadwacer? Wulf (or ‘a wolf’) carries our wretched whelp to the wood.
 People may easily separate that which was never joined,
 our song together.

ii. *Two Old Irish Poems*

Text: *Int én bec* (Murphy, 1998: 6–7)

Int én bec
 ro léic feit
 do rinn guip
 glanbuidi:

fo-ceird faíd
 ós Loch Laíg
 lon do chraib
 charnbuidi.

Translation:

The little bird
 Which has made a whistle
 From the end of a bright yellow beak:
 it utters a note
 above Belfast Loch
 a blackbird from a yellow-heaped branch.

Text: *Int én gaires* (Murphy, 1998: 6–7)

Int én gaires asin tsail
 álainn guilbnén as glan gair;
 rinn binn buide fir duib druin:
 cas cor cuirther, guth ind luin.

Translation:

The bird which calls from the willow,
 Beautiful beaklet of a clear note,
 Melodious yellow beak of a clever black man,
 Lively the tune that is played, the voice of the blackbird.

iii. *Ginnungagap*

Text: *Völuspá*, from combined ‘B’ text (Björnsson, n.d.: online)

[3] Ár var alda
þar er Ýmir byggði,
vara sandr né sær
né svalar unnir,
Jörð fannsk æva
né upphiminn,
gap var ginnunga,
en gras hvergi.

[44] Geyr garmr mjök
fyr Gínpahelli,
festr man slitna,
en freki renna.
Fiölð veit hon fræða,
fram sé ek lengra
um ragnarök
römm sigtíva.

[57] Sól tér sortna,
sigr fold í mar,
hverfa af himni
heiðar stjörnur,
geisar eimi
við aldrnara,
leikr hár hiti
við himin sjálfan.

[59] Sér hon upp koma
öðru sinni
jörð ór ægi
iðjagræna.
Fallar forsar,
flýgr örn yfir,
sá er á fjalli
fiska veiðir.

Translation:

3. It was the beginning of time
when Ymir made a settlement,
there was no sand nor sea nor cool waves;
earth was nowhere nor the sky above,
the void was chaos, grass was there nowhere.

44. Garm bays loudly before Peak-cave,
the rope will break and the wolf will run,
much wisdom she knows, I see further ahead
to the destruction of the mighty gods of victory.

57. The sun turns black, earth sinks into the sea,
the bright stars vanish from the sky;
steam rises up against the world-tree,
a high flame plays against heaven itself.

59. She sees, coming up a second time,
Earth from the ocean, eternally green;
the waterfall plunges, an eagle flies above,
one that hunts fish on the mountain.

iv. *Argatnél* and v. *Ildathach*

Text: *Immram Brain* (Murphy, 1998: 92–93)

1 [33] CA[Í]NI amra laisin mBran
ina churchāan tar muir nglan;
os mē, am c[h]arput do chēin,
is magh sccothach ima-rēidh.

Translation:

Bran deems it a marvellous beauty
to sail in his little coracle across the clear sea,
while to me in my chariot,
it is a flowery plain over which it drives.

vi. *The Deirdre Prophecy*

Text: ‘Longes mac n-Uislenn’ (Färber, 2013: online)

Báatar Ulaid oc ól i taig Feidlimthe maic Daill, scélaigi Conchobuir. Baí dano ben ind Feidlimthe oc airiuc don t-sluag ósa cinn is sí thorrach.

5] Tairmchell corn oculus chuibrenn oculus ro-lásat gáir mesca. A mbáatar do lephugud, do-lluid in ben dia lepaid. Oc dul dí dar lár in taige, ro-gréch in lenab inna broinn co-closs fon less uile. At-raig cach fer di alailiu is’tig lasin scréich í-sin co-mbáatar cinn ar chinn isin tig. Is and ad-ragart Sencha mac Ailella:

10] ‘Na cuirid cor díb!’ or-se. ‘Tucthar cucunn in ben co-festar cid dia-tá a ndeilm se.’

Translation:

The Ulaid were drinking in the house of Feidilmid son of Dall, Conchuchur's storyteller. Feidilmid's wife was standing over them and serving, although she was pregnant. Drinking horns and portions of food went round, and there was drunken shouting. When it was time to sleep, Feidilmid's wife rose to go to her bed, but as she crossed the middle of the house the child in her womb screamed so that it was heard throughout the court. Every man arose at the scream, so that they were standing head to head. Then Senchae son of Ailill said: 'Do not disturb each other' he said. 'Let the woman be brought to us so that we might learn what caused the noise.'

vii. *Ungelīc is Ūs* (see *Wulf and Eadwacer*)

viii. *The Seeress* (see *Völuspá*)

ix. *The Swan*

Text: *Riddle 7* (Hamer, 1985: 96)

Hrægl mīn swīgað, þonne ic hrūsan trede,
 oþpe þā wīc būge, oþpe wado drēfe.
 Hwīlum mec āhebbað ofer hæleþa byht
 hyrste mīne, ond þēos hēa lyft,
 ond mec þonne wīde wolcna strengu
 ofer folc byreð; frætwe mīne
 swōgað hlūde and swinsiað,
 torhte singað, þonne ic getenge ne bēom
 flōde ond foldan, fērende gæst.

Translation:

My raiment is quiet, when I tread the earth,
 or stay at home, or stir up the waters.
 At times my equipment and the lofty air lift me up over warriors' dwellings,
 and the strength of the clouds carries me far over the people. My trappings
 resound loudly and sing melodiously,
 they sing brightly, when I am not near to the water or earth,
 a traveling spirit.

x. *The Death of Odin*

Text: *Hávamál* (Jónsson, n.d.: online)

[144] Veistu, hvé rísta skal?
 Veistu, hvé ráða skal?
 Veistu, hvé fáa skal?
 Veistu, hvé freista skal?
 Veistu, hvé biðja skal?
 Veistu, hvé blóta skal?

Veistu, hvé senda skal?

Veistu, hvé sóa skal?

Translation:

Do you know how to carve?

Do you know how to counsel?

Do you know how to draw runes?

Do you know how to test?

Do you know how to ask?

Do you know how to sacrifice?

Do you know how to dispatch?

Do you know how to kill?

xi. *The Difference Between Us*

Text: *Buile Suibne* (Murphy, 1998: 122–126)

1. A BENNÁIN, a búiredáin,
a béicedáin binn,
is binn linn in cúicherán
do-ní tú 'sin glinn.

17. 'Gonaid, marbaid, airligid;
gabaid uile a eill;
cuirid é, cid lór do chin,
ar bir is ar beinn.'

Translation:

1. O Antlered one, o bellowing one,
o musical roaring one,
It is pleasant to us, the sound
which you make in the valley.

2. 'Slay, kill, slaughter;
Take all of you the opportunity he has given,
put him – although it be a sufficient crime –
upon spike and upon spear.'

Text: *Gododdin* (Williams, 1961: 28)

O winveith a medweith yd aethant.
e genhyn
llurugogyon nys gwn lleith lletkynt.
kyn llwyded eu lleas dydaruu.

rac catraeth oed fraeth eu llu.
 o osgord vynydawc vawr dru.
 o drychant namen vn gwr ny dyuu.

Translation:

After wine-feast and mead-feast they left us,
 Mail-clad men, I know death's sadness.
 Before hair turned grey came their slaughter.
 Before Catraeth, brisk was their war-band.
 Of Mynyddawg's men, great grief,
 Of three hundred, only one man returned.

Appendix II: Early Medieval Text, Translation and Pronunciation

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Full List of Compositions

i. Solo

A Flaming Wheel Crossing the World (2013) Pf. (c.3'30")

Geilt (2008) Fl. (c.5'50")

Gwyllt (2010) Bsn. (c.4'25")

The Swan (2012) Mezzo-Sop. (c.5')

ii. Chamber

A Charm (2012) Sop., Cl., Bsn., Guit., Va., Db. (c.5')

Echtra (2009) Cl., Va., Pf. (c.13'35")

I Had A Living Spirit (2010) Mezzo-Sop, Cl., B.Cl., A.Sax, Hp. (c.2'30")

I Have Tidings For You (2010) Mezzo-Sop., Cl., Perc. (1 player), Hp., Vn., Vc., Pf. (c.4')

Ildathach (2014) Cl., Accordion, Pf., Vn., Vc. (c.5'15")

Lokasenna (2009, rev. 2012) Vn., Vc. (c.5'10")

On The Way A Miracle (2014) Alto Sax., Mezzo-Sop. (c.2'12")

Peis Dinogat (2014) Cl., Mezzo-Sop. (c.4')

Song of Grotti (2011) 2Sop., 2Cl., Pf. (c.7'20")

Taliesin (2012) - Fl. db A.Fl., Cl. db B.Cl., Tpt., Tbn., Perc. (1 player), Hp., Vn., Vc. (c. 4')

The Death of Odin (2015) Cl. db. B.Cl., Perc. (1 player), Vc., Countertenor, Tenor, Bar., Pf. (c. 11'20")

The Deirdre Prophecy (rev. 2015–16 for BCMG) Fl., Cl., Hn., Tbn., Perc. (1 player), Hp., Vn., Vc. (c.4')

The Deirdre Prophecy (2014–15) Fl., Ob., Cl., Bsn., Hn., Tpt., Tbn., Perc. (1 player), Pf., Harp, Vn., Va., Vc., Db. (c.4')

Transmutations of Gwion Bach (2012) Ob., Harp, Vn.1, Vn.2, Va, Vc. (c. 6')

Ubi Sunt (2014) Fl., Perc. (1 player), Pf., 2Vn., Va., Vc. (c.8'10")

Völutal (2009) A.Fl., Cl., Perc. (1 player), Vn., Vc., Pf. (c.5'30")

iii. Choral

Cros Chríst (2011) SSSAAATTTBBB (c.4'30")

Deus Noster (2012) S solo or semichorus, SSAATTBB (c.5')

iv. Orchestral

Argatnél (2013–14) 2 (II=Picc./A. Fl.). 2 (II=C.A.). 2 (II=B.Cl.). 2 (II=Cbsn.). 2. 2. 1. B.Tbn. 2.Perc. Hp. Pf. Strings 3.2.2.2.2 (c.9')

Ginnungagap (2010–11) Picc. 2. 2. C.A. 2. B.Cl. 2. Cbsn. 4. 3. 2. B.Tbn. 1. Timp. 4.Perc. Hp. Pf. Mezzo-Sop. Strings 16.14.12.10.8 (c.7'20")

vi. One or more performers with electronics

Geilt (rev. 2009) Fl., Elec. (c.6')

The Difference Between Us (2015–16) Fl., Ob., Cl. db. B. Cl., Bsn., Hn., Perc. (1 player), Hp., Mezzo-Sop., Countertenor, Bar., Synth., Vn., Va., Vc., Db., Elec. (c.25')

The Jay (2013) Ob. and Live Electronics (c.4')

Two Old Irish Poems (2012, rev. 2014) Mezzo-Sop., Fl. and Electronics (3'46")

We Are Apart; Our Song Together (2009 - 10) Mezzo-Sop. and Electronics (7'04")

vii. Electroacoustic

A Travelling Spirit (2014) Electroacoustic fixed media (5'25'')

The Seeress (2014) Electroacoustic fixed media (10'00'')

Ungel̃ic is Ūs (2015) Electroacoustic fixed media (11'40'')

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Wishart, T. (1985) *Vox 3*. York: University of York Music Press.

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Discography

i. Audio CDs

Alcorn, M., *et al.* (2007) *The Old Woman of Beare*. Smith Quartet, Annie McCartney (narrator). In: *Ghost Stories*. [CD] Recorded at Trinity College of Music, London, 29 May, 4 June, 25 June, 3–7 July 2006. (Signum Classics SIGCD088).

Berg, A. (1988) *Five Orchestral Songs op. 4 to picture-postcard texts by Peter Altenberg (1912)*, Margaret Price (soprano), London Symphony Orchestra, Claudio Abbado (conductor). [CD] Recorded at Anvill Films Studios, Denham, Buckinghamshire (UK), December 1970. In: *Berg: Lulu Suite, Altenberg Lieder, Three Pieces for Orchestra* (Deutsche Grammophon 423 238–2).

Birtwistle, H. (2014) *Gawain*, Marie Angel (soprano), Anne Howells (mezzo-soprano), Richard Greager (tenor), Penelope Walmsley-Clark (soprano), Omar Ebrahim (baritone), Alan Ewing (bass), John Marsden (tenor), Francois Le Roux (baritone), Kevin Smith (countertenor), John Tomlinson (bass baritone), Royal Opera Chorus, Orchestra of the Royal Opera House, Elgar Howarth (conductor). [CD] Recorded at the Royal Opera House, Covent Garden, London, 20 April 1994. (NMC D200).

Boulez, P. (2002) *Pli selon pli*, Christine Schäfer (soprano), Ensemble Intercontemporain. [CD] Recorded at Cité de la musique, Paris, January–February 2001. (Deutsche Grammophon 471 344-2).

Bryars, G. (2013) *From Egil's Saga*, Rúni Brattberg (bass), Eystanljóð (choir), Aldubáran (chamber orchestra), Gavin Bryars (conductor). [CD] Recorded at Nordic House, Tórshavn, Faroe Islands, November 2011. In: *Hövdingar Hittast: Heroes Meet*. (GB Records BCGBCD20).

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Finnissy, M. (2005) *Maldon & Other Choral Works*, Exaudi, James Weeks (director). [CD] Recorded at Rosslyn Hill Unitarian Chapel, London, 7–10 January 2004. (NMC D110).

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- Harvey, J. (2010) *Speakings*. BBC Scottish Symphony Orchestra, Gilbert Nouno and Arshia Cont (IRCAM computer music designers), Jonathan Harvey (sound projection), Jérémie Henrot and Clément Marie (IRCAM sound projection), Ilan Volkov (conductor). [CD] Recorded at Glasgow City Halls, Candleriggs, Glasgow, 5–6 March 2009. In: *Speakings* (Æon AECD 1090).
- Harvey, J. (2012) *Wagner Dream*. Claire Booth, Gordon Gietz, Matthew Best, Dale Duesing, Rebecca de Pont Davies, Richard Angas (soloists), John Leysen, Catherine ten Bruggencate, Bracha van Doesburgh, Charles van Tassel, Jane Oakland, Basja Chanowsky (actors), Ictus Ensemble, Martyn Brabbins (conductor), Gilbert Nouno (IRCAM computer music designer). [CD] Recorded at Westerngasfabrik, Amsterdam, June 2007. (Cypres CYP5624).
- Harvey, J. (2004) *Passion and Resurrection*. BBC Singers, Sinfonia 21, Martin Neary (conductor). [CD] Recorded at St. John's, Smith Square, London, 22 March 1999. (Sargasso SCD28052).
- Harvey, J. (2008) *White as Jasmine*. Anu Komsí (soprano), BBC Scottish Symphony Orchestra, Ilan Volkov (conductor). [CD] Recorded at City Halls, Glasgow, 1 February 2007. In: *Jonathan Harvey: Body Mandala, Timepieces, Tranquil Abiding, White as Jasmine, ...Towards a Pure Land* (NMC D141).
- Leroux, P. (2004) *Voi(rex)*. Donatienne Michel-Dansac (soprano), Ensemble L'Itinéraire & Informatique musicale Ircam, Pierre-André Valade (conductor), Frédéric Voisin (musical assistant). [CD] Recorded at Ircam-Centre Pompidou, January 2003. (Nocturne NTCD 358).
- Ligeti, G. (2004) *Nouvelles Aventures*. Linda Hirst (mezzo-soprano), Omar Ebrahim (baritone), Sarah Leonard (soprano), Schönberg Ensemble, Reinbert de Leeuw (conductor). [CD] Recorded at Theater Felix Merites, Amsterdam, May 17–19 2002. In: *The Ligeti Project V* (Teldec Classics 8573-88262-2).
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Saariaho, K. (2009) *L'amour de loin*. Daniel Belcher (tenor), Ekaterina Lekhina (soprano), Marie-Ange Todorovitch (mezzo-soprano), Rundfunkchor Berlin, Deutsches Symphonie-Orchester Berlin, Kent Nagano (conductor). [CD] Recorded at Teldex Studio, Berlin, March 2006 and Bavaria Musik-Studios, Munich, October 2008. (Harmonia Mundi HMC801937.38).

Saariaho, K. (1997) *Lonh*. Dawn Upshaw (soprano), Reijo Kiilunen (producer), Franck Rossi (engineer), David Poissonier (engineer). [CD] Recorded at IRCAM, Paris, March 1997. In: *Private Gardens* (Ondine ODE 9062).

Saariaho, K. (1997) *NoaNoa*. Camilla Hoitenga (flute). [CD] Recorded at IRCAM, Centre Georges Pompidou, Paris, April 1996. In: *A Portrait of Kaija Saariaho* (BIS CD-307).

Schwitters, K. (1993) *Ursonate*. Kurt Schwitters (voice). [CD] (n.d.). (Wergo WER 6304-2).

Stockhausen, K. (2001) *Gesang der Jünglinge*. [CD] Electroacoustic work composed 1955–1956. In: *Stockhausen 3* (Stockhausen-Verlag 3).

Stravinsky, I. (2015) *Les Noces*. Carolyn Sampson (soprano), Susan Parry (alto), Vsevolod Grivnov (tenor), Maxim Mikhailov (bass), RIAS Kammerchor, musikFabrik, Daniel Reuss (conductor). [CD] Recorded at Teldex Studio Berlin, August 2005. (Harmonia Mundi HMG 501913).

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ii. DVD and Video

Birtwistle, H. (2008) *The Minotaur*. John Tomlinson, Johan Reuter, Christine Rice, Andrew Watts, Philip Langridge (soloists), The Royal Opera Chorus, The Orchestra of the Royal Opera House, Antonio Pappano (conductor), Stephen Langridge (stage director). [DVD] Recorded at The Royal Opera House, Covent Garden, London on 25, 30 April and 3 May 2008 (Opus Arte OA 1000 D).

Brith Gof *et al.* *Gododdin*. [video online] Available at <https://vimeo.com/80218855>. [accessed 29 April 2016].

Czernowin, C. (2006) *Pnima... Ins Innere*. Richard Beek, Philip Larson, Tom Sol, Elias Maurides, Ute Wasserman, Silke Storz (voices), Anthony Burr (clarinet), Rico Gubler (saxophone), Andreas Eberle (trombone), David Shivley (singing saw, percussion), Mary Oliver (viola), Frank Cox (violoncello), Munich Chamber Orchestra, André Richard, Michael Acker, Reinhold Braig (sound direction), Johannes Kalitzke (conductor). [DVD] Recorded at 7. Münchener Biennale, 2000. (Mode 169).

Saariaho, K. (2005) *L'Amour de loin*. Gerald Finley (baritone), Dawn Upshaw (soprano), Monica Groop (mezzo-soprano), Finnish National Opera Orchestra, Finnish National Opera Chorus, Esa-Pekka Salonen (conductor), Peter Sellars (stage director). [DVD] Recorded at the Finnish National Opera, Helsinki, Finland, September 2004 (Deutsche Grammophon 00440 073 4026).