

## Cassations : Malcolm Williamson's operas for musically-untrained children

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# **Cassations: Malcolm Williamson's operas for musically-untrained children.**

James Henry Byrne Humberstone

Submitted in fulfilment of the requirements for the degree of  
Doctor of Philosophy



School of the Arts & Media  
Faculty of Arts & Social Sciences

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Malcolm Williamson's ten cassations, mini-operas devised to introduce children to the operatic form, remain unique in a number of ways. Most importantly they are the *only* collection of work in this genre by an established art music composer intended for musically-untrained children.

Many composers have written children's opera, sometimes as entertainment *for* children, performed by adults, and sometimes as opera to be performed *by* children. In the latter case, the great majority of composers write for specific ensembles or schools where music is taught by specialist music teachers to every child.

Very few established composers write children's opera for musically-untrained children. Only one has written a series of ten and single-handedly directed them with his own children, in primary schools and church groups, with physically and mentally handicapped children, and even with adult audiences and professional orchestras in the Royal Albert Hall and Sydney Opera House. Williamson's cassations were performed on nearly every continent of the world, hundreds of times, often under his own baton.

Largely ignored in the (itself scant) analysis of Williamson's body of work, the collection was of great importance to the composer himself. This thesis fills that void in the literature. It also suggests that the compositional concessions made by Williamson provide a model to other composers interested in writing opera for musically-untrained children. This speaks to the broader question of how composers can modify their compositional approach without losing their 'voice'.

A broad range of analytical methods are considered and compared with existing analyses of Williamson's repertoire for professionals (Gearing 2004; Kendall-Smith 1994; Philpott 2010). Implication-Realization analysis of melodic expectancy (Narmour 1990, 1992; Schellenberg 1996, 1997) is used in combination with analysis of structure, part writing, vocal support, range, and harmonic language to allow quantitative comparison to the writing for professional vocalists in Williamson's full operas and to summarise his approach to writing for musically-untrained children.

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## Abstract

Malcolm Williamson's ten cassations, mini-operas devised to introduce children to the operatic form, remain unique in a number of ways. Most importantly they are the *only* collection of work in this genre by an established art music composer intended for musically-untrained children.

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Largely ignored in the (itself scant) analysis of Williamson's body of work, the collection was of great importance to the composer himself. This thesis fills that void in the literature. It also suggests that the compositional concessions made by Williamson provide a model to other composers interested in writing opera for musically-untrained children. This speaks to the broader question of how composers can modify their compositional approach without losing their 'voice'.

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## **The Context of this Thesis**

This thesis is submitted in fulfilment of the requirements for the degree of Doctor of Philosophy in Music Composition at the University of New South Wales. It is considered together with the Composition Folio, and relates to it as outlined in the Introduction to the Folio, but as an academic dissertation also stands in its own right.

## **Dedication**

This thesis is dedicated to the memory of Dr Steve Dillon, an inspiring academic, musician and friend.

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## Chapter 1. Introduction, Context and Literature Review

Composer Malcolm Williamson wrote eclectically, and these broad styles have been described as “quasi-serial” on one hand (Walsh 1965, p. 27) and “popular” (Philpott 2010, p. 98) or “exotic” (Waterhouse 1966, p. 19) on the other. A decorated composer, even considered by some to be Australia’s most successful and prolific (Hoffmann 2003), some of his “accessible” work included a series of what he called cassations: mini-operas to serve as an introduction to the form for children.

Williamson is by no means the only established and highly decorated western art-music composer to have written opera for musically-untrained children, but he is the only one to have developed his own sub-genre: the “cassation”, as he called them, “tiny operas to be performed in schoolrooms, in the open air, or anywhere informal” (Williamson 1973-4, p. 2). Composed over 15 years (from 1967 to 1982), Williamson was able to refine his approach for writing for this special group of performers. He also had opportunity to test the material on his own children, on mentally and physically handicapped children in many countries, and with audiences in some of the world’s most renowned concert halls.

The term *cassation* has a number of blurred meanings, even in its original usage in the Classical period (Hubert & Cliff 2012). Its etymological derivation uncertain, alternatively used by composers as eminent as Haydn and Mozart to describe a divertimento, a quartet or a serenade, Williamson did not document why he chose this collective name for his mini-operas. There was no established style for a composed cassation in the classical period, and the term had fallen out of use by the late eighteenth century. However, some of Haydn’s music labeled as cassations were light and humourous, and while some of the subject matter in Williamson’s cassations is serious (see Chapter 3), the idea that they should all be prepared and performed quickly with the involvement of every person present would fit with this derivation. In comparison to Williamson’s operas for professionals, the cassations were indeed light and humourous.

The existing literature on Williamson’s work provides no further elucidation of the term *cassation* or Williamson’s reasons for using it. A variation of the above definition

suggests that a cassation in the Classical period was “commonly a piece to be played out-of-doors wherein practically anything could happen” (Bourne 1979), an idea that fits Williamson’s published direction quoted above. In a highly critical review of one cassation, the journalist suggested the surviving meaning of the term was “the act of making null and void”, suggesting “this is the meaning favoured by Williamson, whose ‘The Glitter Gang’ is void of music and makes null the time spent in playing it.” (Hince 1991) Such reference displays lack of understanding of Williamson’s aesthetic, however, and the cassations will be shown to be not only central to the composer’s work, but important in their own right as a body of work and unique genre of music.

As will be seen, the great majority of composers who have written children’s operas have composed for special musical institutions: choirs with children chosen by audition, schools with large music faculties that support individualised musical learning for every child, or other community based music projects such as church groups or music festivals. By their very nature, these institutions provide a high level of music education for the children involved, and so the scope of what the composer can write is therefore much broader than if he or she were composing for the general school population.

Those composers who have written children’s opera specifically for musically-untrained children have usually included simplified parts for them alongside their musically trained counterparts (for example Benjamin Britten’s *Noye’s Fludde* (1958)). The collection of ten cassations stands unique therefore, as a body of children’s operas with a single aesthetic, composed entirely for musically-untrained children. A precise definition of the term *musically-untrained children* is outlined later in this chapter.

While the series of Williamson’s cassations stands in the unique position of being the only collection of ten short operas for musically-untrained children by an art music composer established in his own right (that is, not a composer who has *only* had success writing for children) in the entire history of western music, the involvement of composers in all levels of music education is long and well-documented. This chapter gives the collection an historical context through the process of a literature review. It also seeks to place the composition of the cassations in a *biographical* context in Williamson’s career, and to relate them to his compositional aesthetic. There are very



few major biographical or analytical works on Williamson's career and output, but those which exist are reviewed here and also in the context of the analytical approach explored in the next chapter.

The introductory material establishes the importance of the cassations in a historical and educational context, while remaining chapters focus on Williamson's compositional processes in the cassations in detail. Chapter 2 investigates approaches taken in the limited literature that analyses other work by Williamson, summarises where it is relevant to this thesis and outlines in detail the analytical approach taken in Chapter 3. This includes an explanation of the use of Schellenberg's (1997) modification of Narmour's (1992) approach to analysing melodic expectancy, and how it is used in this thesis to understand and compare the difficulty of Williamson's vocal writing within the cassations and even to his work for professionals.

Chapter 3 provides detailed analysis of seven of Williamson's ten cassations. *The Valley and the Hill* (Williamson 1977) is not included because while Williamson labelled it a cassation it does not actually fit within his own definition, lasting nearly an hour (most cassations are around ten minutes long) and having a much larger scale than the others which would not be possible to prepare in the manner outlined in Williamson's own writing. In addition, *La Terre des Rois* or *The Terrain of the Kings* (Williamson 1974) and *The Devil's Bridge* (Williamson 1982) were not located in print within the analysis time frame and so are not included.

Chapter 4 summarises similarities of compositional approach within the cassations and establishes these as features of Williamson's writing for this specific genre. It concludes where the composer made compositional concessions and where he did not.

Conclusions are also drawn from all preceding chapters that may be useful as a guide to living art music composers wanting to further this rare art form, namely operas for musically-untrained children.

### **A definition of the term “musically-untrained children”**

The term “musically-untrained children” is used throughout this thesis to describe children whose musical experience and education has taken place exclusively in the classroom or other environs with *non-specialist* music teachers. In England and

Australia, the two countries with which Williamson identified (Harris & Meredith 2007; Philpott 2010), it is still true today - as it was in his lifetime - that music instruction with a qualified music teacher is not a mandated part of the primary school curricula (Australian Government 2005; Hallam et al. 2009).

Existing research on levels of musical literacy in musically-untrained children tends to focus instead on the USA. The system there is somewhat different, because there is a mandatory music performance curriculum taught by specialist music teachers, but the research in this field does allow a definition to be referenced. In their work comparing perception and cognition of “Musically Trained and Untrained Adults” with children, Clifford and Katia Madsen define the musically-untrained as having had “no private instruction and fewer than 3 years of formal group music ensemble study” (Madsen & Madsen 2002, p. 115). In Flowers’ research into the music vocabulary of first-grade children she simply categorises subjects as “musical novices” or “listeners untrained in music” (Flowers 1998, p. 7).

The term *musically-untrained children* has further implications in respect to a child’s physical vocal range. The abilities of pitch discrimination (identifying when one pitch is different from another) and singing accuracy (ability to sing unison to a given pitch) is seen to increase with maturity (Goetze, Cooper & Brown 1990; Welch 2006). Vocal training has been seen to further increase vocal range and strength (Böhme & Stuchlik 1995) and so composing for *untrained* children implies a composer is writing for a narrower range and cannot rely on as wide a range of dynamic control.

Extensive research has attempted to define a vocal dynamic and pitch range of untrained children, but the conclusions that can be drawn are too broad for a composer to distil into simple compositional rules. This further adds to the practical value of a collection of successful works for children’s voice as a model for other composers.

In the most recent research in this field, researchers from the University Hospital at the University of Antwerp extended Böhme and Stuchlik’s research (1995) which identified a “standard childhood voice profile” of children of both genders aged 7 to 10 by increasing the accuracy of Voice Range Profiles in the lower and higher frequencies (Heylen et al. 1998). Their results showed a consistent range from about 200Hz (G3) to 870Hz (G5), with intensity (dynamic range) extremely narrow at either end -- around

60dB at the lower end and 90dB at the higher end. No composer would assume a singing range this wide, however, and indeed it is the range of frequencies where the intensity is widest (30-40dB) which more closely matches the range composers choose to write in: 250Hz (~B3) to 495 (~B4) as shown in Figure 1.1. As will be seen, composers often write within that range for very young voices, and a little higher (consistently up to 700Hz (F5)) but rarely lower than that range for children in the target age group of this research.



Figure 1.1. *Standard Childhood Profile* for children of both genders aged 7-10 shown with relative pitch on a treble staff. A wide dynamic range is possible between the middle B3 and B4, with the outer notes less stable.

While Figure 1.1 is a useful summary of the above research, it must be reinforced that “singing accuracy varies widely within and across grade levels”, and “improvement may not occur progressively at successive grade levels in a predictable pattern” (Cooper 1995, p. 229). For the purposes of this definition of musically-untrained children, then, the important qualifier is the level of specialised education provided to the children the composer intends to write for, rather than individual developmental or physiological abilities.

Since Williamson’s cassations were composed for “children of all ages”, the definition of musically-untrained children for the purposes of this text assumes that the level of training is the same or even lower than definitions in the above mentioned studies.

### **The historical context of the cassations**

While Williamson’s cassations are in many ways unique, the involvement of established art music composers in music education in the mid-twentieth century was not. In modern day schools, specialist music educators often discuss and adopt the approaches and methods of composers such as Carl Orff or Zoltan Kodály from the first half of the twentieth century, or repertoire for children by composers such as Benjamin Britten, Gustav Holst, or Aaron Copland. Music educators today identify with the recent great

composers most in education because our curricula and our peers are still most influenced by - or reacting against - their affect (Walker 2007).

The first twentieth century composer who established the role of composing repertoire for musically-untrained children with didactic intention was Carl Orff, who published a series of books called *Music for Children* (Orff & Keetman 1952). Orff's approach employed specially designed instrumentation and integrated the development of vocal skills, movement (based on Émile Jacques-Dalcroze's teaching of Eurhythmics) and improvisation. The music composed is often ostinato-based, with melodic material which progresses from a few notes, through the major and minor pentatonic scales to diatonic tonalities. Rhythms, meters and vocal range are expanded through the progression of the books.

While Orff's published output does have a definite progression of musical concepts and, while Orff wrote and spoke extensively about the progression in which he believed children could best learn, the system (especially as it has become interpreted in modern day schools) is described as an *approach*, not a literal method. Orff advocated the adaptation of his material to meet the needs of the class, the culture in which it is being used, and the further composition and improvisation of music which follows his principals. This contrasts with Kodály's *method*, which reflects a strict development of skills through a more rigorously prescribed methodological approach. Of course, there are many such courses in existence, but these are mostly written by specialist performers or educators, not established composers.

At the time Williamson composed his first cassations, the role of the composer in the classroom (and the place of composition and contemporary art music within the music curriculum) was a popular topic in the music education community. This can be credited to a number of composers who pioneered the incorporation of contemporary compositional approaches into ideas for curriculum. These included R. Murray Schafer (*The Composer in the Classroom* (1965) and *Ear Cleaning* (1967)), George Self (*New Sounds in Class* (1967)), John Paynter and Peter Aston (*Sound and Silence* (1970)), Brian Dennis (*Experimental Music in Schools* (1970)), Robert Walker (*Sound Projects* (1976)) and Gertrud Meyer-Denkman (*Experiments in Sound* (Meyer-Denkman, Paynter & Paynter 1977)). All of these composers attempted to make their new music

available to the generalist music classroom and students who had not had any specialist music training. Some of the books suggest a developmental approach, while others are not so clear, but all attempt to integrate the learning of musical concepts through the performance of this classroom music.

The specific genre of children's opera was also current in the minds of contemporary composers over these decades. In America, Copland began composing children's opera with *The Second Hurricane* (Copland & Denby 1957). Benjamin Britten, a composer highly influential in this field as a successful composer of children's opera and one who also had great influence over Malcolm Williamson, wrote music for both musically-trained and untrained children to perform. Britten's children's opera *Noye's Fludde* (1958) can be performed by children with a non-specialist music education, but has solo parts which require a high level of singing ability. On the other hand, many of his other works for children were written especially for some of Britain's best children's choirs. The same can be said for composer Peter Maxwell Davies, who was director of music at Cirencester Grammar School from 1959 to 1962 and composed with and for the children he educated. Maxwell Davies' work was, however, designed for students already *succeeding* in the music programme, who had a certain level of technical expertise, and as such cannot be seen as an influence on the genre of Williamson's cassations. Writing for exemplary children's ensembles has continued to interest Maxwell Davies over the following decades, and some of his works have been premiered at his St Magnus Festival in Orkney by the local school orchestra.

Britain became a centre of activity for the composition of children's opera: Alan Bush, Richard Rodney Bennett, John Gardner, John McCabe, Stephen Oliver, as well as Malcolm Williamson himself all published children's operas over this period, and Maxwell Davies wrote three. Williamson's operas for musically-trained children included *The Happy Prince* (1965a), *Julius Caesar Jones* (1965b), and *The Red Sea* (1972).

Williamson had arrived in Britain from Australia in early 1953 and began establishing himself as a composer in Europe in between the premieres of *The Little Sweep* and *Noye's Fludde*, making a good friend in Britten through his first employer, the

publisher Boosey and Hawkes. Britten's work for children was acknowledged by Williamson on the occasion of the 1965 premiere of his first Children's Opera *The Happy Prince*, when he commented that ever since attending the premiere of *Noye's Fludde* he had wished to write an opera for children and adults (Harris & Meredith 2007, location 3644).

For this reason, it is important to review *Noye's Fludde* in a little more detail. As mentioned above, this work is intended to cater for musically-untrained children, but in the context of a full operatic setting with support by a professional pit orchestra. *Noye's Fludde*, a medieval Chester Miracle Play set to music lasts approximately 50 minutes. Britten is extremely clear about the lead roles in the opera and who should play each part. These parts are to be played by experienced or trained musicians; "Mr and Mrs Noye should be accomplished singer-actors... Sem, Ham and Jaffett and their wives should have well-trained voices and lively personalities. They should not be too young - perhaps between eleven and fifteen... The Gossips should be older girls, with strong voices, especially in the lower register..." (1958, p. iii), while the animals are played by any musically-untrained children. In addition, there is both a small pit orchestra (treble recorder, piano four hands, organ, timpani and string quintet) with parts to be played by professionals and a larger amateur orchestra (descant recorders 1 & 2, treble recorders, 4 bugles in Bb, 12 handbells in Eb, violins 1, 2 and 3, violas, cellos 1 and 2 and double basses, with an extended percussion section) which can be performed by children if they have had some level of instrumental training. Britten is clear about what the capability of each player should be in his notes in the score, allowing for the challenging involvement of all children, whether musically trained or not, as vocalists or instrumentalists.

Williamson did not ever emulate the likes of Orff and Kodály by creating music for children intended as a course to be followed, or developed as a pedagogical approach for music educators. Despite this, the *Composer's note to teachers* found in the cover of the published cassations does suggest a didactic intent, but one which was more in line with the experiential work being done by contemporaries Schafer, Dennis et al (outlined above) than the composers of the first half of the century. The cassations in many ways represent a joining line between the traditional operatic form, which

Williamson was unapologetically promoting to children through his cassations, and the more radical and modernist approach of the latter group.

While this thesis establishes Williamson's cassations as a unique body of compositions for musically-untrained children, many of them were also composed to be initially premiered by special groups. These groups included a Children's Choir Camp in the Diocese of Western North Carolina (*Genesis* (1971)), and even some concert-hall adult groups including the Brighton Festival where *The Moonrakers* (1967) was premiered by the Orchestra of Trinity College of Music, London, with the singing and effects performed by the audience; the Last Night of the Proms where *The Stone Wall* (1971) was premiered by the audience with the BBC Symphony Orchestra at the Royal Albert Hall; and the Sydney Proms where *The Glitter Gang* (1973-1974) was commissioned by the ABC for premiere at the Sydney Opera House.

As mentioned, by its very scale *The Valley and The Hill* (1977), composed for the Silver Jubilee and performed in the streets of Liverpool by hundreds of school children, is too extensive a project to be easily put together in a short time in a classroom as Williamson intended for his cassations. While the music may be as approachable by children as the other cassations (some of which is highly challenging, as will be seen in Chapter 3), the scale of a work about an hour long puts it firmly in the category of a work for *specialist* ensembles of institutions (or, at the very least, a long term performing arts project for a school).

It must be emphasised that the cassations were no small part of Williamson's output and success as a composer. While the majority are under ten minutes, and were available as simple piano and vocal reductions through Williamson's publisher to schools around the world, the composer himself dedicated an incredible amount of time to personally workshopping them. This was especially true in the first half of the nineteen seventies, a period in which Williamson spent much time travelling, and in which the cassations were performed with him personally directing hundreds of times.

The above overview of composers' involvement in music education and approaches to children's opera at the time Williamson composed the cassations summarises their historical context, but to understand their context within Williamson's own output, one

must consider the life of the man himself, his aesthetic as a composer and the existing literature in this field.

### **Malcolm Williamson, composer: the context of the cassations**

Williamson might be considered the worst and yet the best composer on which to perform detailed musical analysis to ascertain how a composer might modify his compositional style to adapt to the needs of musically-untrained children, and what compositional approaches he retains to maintain his compositional ‘voice’.

He might be the worst because from the very start of his career Williamson was an eclectic of extreme styles, from the serial method to the “big tune” (The Times, 18 February 1966). For example, his serially-influenced *Symphony No. 1* and the neo-romantic *Santiago de Espada* were both composed in 1957. Identifying a single ‘voice’, therefore, has eluded many who have analysed and critiqued his work (Bradbury 1981; Harris & Meredith 2007; Kendall-Smith 1994; Payne 1966, 1969). In contrast, Williamson might be considered the best subject for this analysis because that daring and variety of style does pervade the cassations, and as hard to stylistically categorise as Williamson is, this collection of compositions is undoubtedly *his*.

He can also be considered the best composer to have created such a collection of important children’s operas because his wildly eclectic approach means he does not always write “safely” for children, remaining within narrow registers, writing simple formal harmony, diatonic melody or repeated, regular phrases (although there are also many examples of such writing within the cassations). While this music is intended to be rehearsed quickly and performed by musically-untrained children, it contains plenty to challenge them - indeed some sections that this research will suggest would be highly challenging.

When considering Williamson’s multifarious approaches to composition it is also important to consider the man himself. This is not because he clearly articulated a single philosophy that draws these styles together, but because he had a singular energy that when channeled into directing the cassations himself contributed to their success and promoted their use widely. This is most vividly in evidence in the BBC documentary *Williamson Down Under* (Barber 1976), where he is shown in a tussling interview with



critic Maria Prerauer, performing at the piano with the Melbourne Symphony Orchestra, and teaching his cassations to intellectually disabled children at the Koomarri School. Each starkly different activity is carried out with the same energy and conviction, and this offers great insight into Williamson's survival as a contemporary composer, often against critical opinion, and the key ingredient to his success with the more challenging cassations (further detail is provided in Chapter 3).

Williamson began his adult compositional life in Europe, migrating permanently to London from Sydney in 1953 as a young composer interested in serial methods of composition. Having studied composition with Eugene Goossens and Bernard Heinze in Australia, it was the influence of composer Elisabeth Lutyens (who also taught Birtwistle, Goehr and Maxwell-Davies) and colleague Erwin Stein (a pupil of Schoenberg and friend of Webern and Berg) who informed his early style the most. Many of his works from this period use compositional methods involving manipulation of a series (without necessarily being strictly serial and rarely using all twelve chromatic pitches equally), with pitch material being based on tone rows and manipulated through transposition, retrograde and inversion techniques.

The first decade in England was tumultuous for Williamson (Harris & Meredith 2007, chapter 3), but he did make vital connections with Adrian Boult and Benjamin Britten, who provided Williamson's first wider public and professional opportunities by organising a rehearsal of the *First Symphony* (1957 - although in this case it wasn't performed for nearly 20 years), the premiere of *Santiago de Espada* (1957) by the London Symphony Orchestra under Boult, and the *Piano Sonata* (1955-56) for Britten's Aldeburgh Festival (Mason 1962, p. 757). Even in these early works the diverse range of styles is evident (Crosse 1978, p. 39): the overture's Bernstein-like melodies and lush orchestration contrasting with the Symphony's serially-inspired material (Kendall-Smith 1994, p. 23) and orchestral textures evoking Stravinsky, drawing criticism that it was "all very colourful, but, ... leaves one feeling that Williamson has too easily accepted what comes naturally." (Griffiths 1978, p. 969)

Nonetheless, Williamson consolidated his position as an established and respected composer in the first half of the 1960s with a series of successful works for the stage,

including the operas *Our Man In Havana* (1963) and *English Eccentrics* (1963-4), and the dance symphony *The Display* (1963-4) which became one of the Australian Ballet Company's core works.

The stage and a narrative gave Williamson an excuse to choose appropriate musical styles to support the action, and his wide range of orchestration skills allowed him to convey grand dramatic gestures with ease. While the critics maintained a mixed response to Williamson's fused musical styles, some accusing him of writing in a style more befitting a musical than an opera, critics generally agreed (Covell 1964; Greenfield 1964) that Williamson had "a very sure feeling for what will work, musically speaking, in the theatre: he knows, for example, just how a dramatic situation can most effectively be pointed and how comments from the orchestra pit can be made to add depth and new perspectives to a character claiming attention on the stage. His economy and technical precision in these matters do indeed contrast quite strongly with the almost embarrassing abundance of his ideas in others." (Plaistow 1963, p. 16)

The influence of Benjamin Britten in Williamson's approach to opera cannot be underestimated. As mentioned, Williamson arrived in Britain between the premieres of *The Little Sweep* and *Noye's Fludde* and acknowledged the influence of the latter work, the premiere of which Williamson attended, on his own *The Happy Prince* (1964-5). Following the successes of *Our Man In Havana* and *English Eccentrics*, Williamson sought Britten's advice during its composition in the lead up to the Farnham Festival of 1965, for which it was commissioned, and the critics declared it another success (Harris & Meredith 2007, location 3628).

The second half of the decade was one of Williamson's most productive periods, as a long series of commissions were completed and, excepting the usual criticism of mixed styles, with critical success - especially his operatic work. In these five years Williamson composed the first three cassations alongside *Julius Caesar Jones* (1965), his second opera to feature children and adults, *The Violins of Saint-Jacques* (1966), *Dunstan and the Devil* (1967), *The Growing Castle* (1968) and *Lucky Peter's Journey* (1969a). Williamson accounted for the timing of the composition of the first cassations with reference to composing for his own young children, but in actual fact *The*

*Moonrakers* (1967) was a commission for the Brighton Festival and the timing of his establishing this new genre had at least as much to do with his prodigious output of operatic music over this short period.

A commission for the Finchley Children's Music Group, *Julius Caesar Jones* (Williamson 1965b) is a children's opera that pits children against adults - there are three adult parts. The choir premiered *Julius Caesar Jones* at the Jeanetta Cochrane Theatre on January 4th, 1966 and it was well received by public and critics alike (Waterhouse 1966, p. 19). The Finchley Children's Music Group was established in 1958 for the first amateur performance of Britten's *Noyes Fludde* (1958), so it has special significance in the history of children's opera. In acknowledgement of that seminal work, Williamson wrote for nearly the same instrumentation - as well as the three adult parts, solo children's parts of varying difficulty and choruses of children accompanied by a chamber orchestra (Williamson did not write beginner string parts as Britten did in *Noyes Fludde*, but the instrumentation did match that of Britten's chamber operas, strengthening the obvious connection).

*Dunstan and the Devil* was a commission for the small Cookham Festival, to be performed in a church and featuring their patron Saint Dunstan. Again, it enjoyed a mostly favourable response from critics, and the influence of Britten was cited by some. *The Growing Castle*, premiered at Dynevor Castle, was a much more austere work than his previous operas. A setting of Strindberg's *A Dream Play* (Churchill & Strindberg 2005), Williamson's dissonance and dour setting maintained mostly positive reviews, many considering the material he had chosen to work with as a problem (Walsh 1968, p. 11). *Lucky Peter's Journey* (Williamson 1969a) was another adaptation from a Strindberg play (Strindberg 1964), but it was not a well-judged response to the English National Opera's commission, and was not a success.

Williamson was adamant to explain how his adaptation fitted the commission for a comic opera before the work even premiered, writing in *The Musical Times* "To use a *Strindberg* play as the basis of what is expected to be a light comic opera is not a betrayal of the charge implied in the commission. The heart of comic opera does not lie in pure comedy, still less in farce" (Williamson 1969b, p. 1229). When his judgement

was proven wrong, with the cast playing to nearly empty houses (Harris & Meredith 2007, location 5254), Williamson over-reacted in his defensiveness about it and never wrote another full scale adult opera, completing only cassations and the children's opera *The Red Sea* (1972) from that day on.

In this five-year period Williamson also made his first trip back to Australia since migrating to Britain, and found the "tall poppy syndrome" alive and well as the Australian critics questioned the extent of his success in Britain and ability as a composer (Philpott 2010, p. 102). His work was performed alongside contemporaries such as Nigel Butterly, George Dreyfus and Peter Sculthorpe at the Canberra Festival. Ironically, Williamson's greatest success on the trip was a performance he conducted of the cassation *The Moonrakers*, of which Roger Covell, otherwise critical of the music Williamson presented on the trip, later wrote "The songs were 'simple and serviceable (which is not to say every composer would find it easy to hit on them)' and there were some delightful orchestral touches." (Covell 1967, p. 16)

The decade beginning in the year 1970 also divides neatly in two in terms of Williamson's life and fortunes, notably because in 1975 Williamson was named the Master of the Queen's Musick. This was a prestigious honour but a surprising one for a number of reasons, not least that Williamson was Australian, and all his predecessors had been British. It was also surprising because there were many living and older British composers who were generally considered more senior and accomplished artists, Britten and Malcolm Arnold ("the other Malcolm") being the most obvious. With the honour would come inevitable change - a change that critics often wondered put too much pressure on Williamson, and may have stopped him writing his finest music (Anderson 2003, p. 243; Bradbury 1981, p. 737).

Williamson's life also changed in the *first* five years of the seventies, engendered by the failure of *Lucky-Peter's Journey*. Working with his publishers to promote what was now a large catalogue of work, Williamson took to travelling in order to workshop and perform it and therefore could not devote as much time to composition, even if commissions had continued to come in at the rate they had in the sixties. He worked throughout Europe, coordinating performances of both operas and cassations, and in

Africa, the Middle East and America, where he was composer-in-residence at Princeton's Westminster Choir College for a year in addition to fulfilling a great number of shorter posts at other universities and conferences. His cassations were widely performed there too, and often with Williamson himself directing. He also visited Australia again in 1973, this time working as the Australian National University's Creative Fellow.

While Williamson did not compose as many new large scale works in this period, he did compose four more cassations, his third Symphony, a double piano concerto and a great number of short choral and vocal works including the successful *Hammarskjöld Portrait* (1974). *The Red Sea* (1972) has been described as "an extended cassation" (Harris & Meredith 2007, location 5707), and in some ways it was: the hour of rehearsal expanded to a week, no sets nor elaborate props, and the audience expected to take a part. A commission by the Devon Education Authority, its pedagogical intent was obviously similar too, but for the key point that the students would be 14 to 16 years old and experienced musicians, which meant that Williamson was not writing within any of the restrictions he placed on himself when writing the cassations.

The performances of Williamson's cassations through this period, sometimes in languages other than English and with groups of both physically and intellectually handicapped children, are documented in the context of their analysis in Chapter 3. They received an especially high number of performances in every state of Australia on his 1973 visit, which was also the time that Williamson discovered how successful they could be with mentally handicapped children.

Williamson's appointment as Master of the Queen's Music coincided with the climax of an emotionally difficult time during which he suffered several nervous breakdowns and which resulted in separation from his wife, and eventual divorce. The appointment therefore served to bolster Williamson's confidence in the second half of the decade, which began with another trip to Australia principally for the filming of a BBC documentary about his musical roots and included performances of his first symphony with the Melbourne Symphony Orchestra and a televised version of *The Violins of Saint-Jacques*. The Silver Jubilee in 1976-77 then gave Williamson opportunities to

compose large scale works in his new royal position: first the Harp Concerto (1976) then jubilee-related works including *Jubilee Hymn* (1977), *Mass of Christ the King* (1978) and his fourth symphony (1978) as well as the oversized cassation *The Valley and the Hill* (1977). During this time he also continued to travel and organise performances of his cassations, especially in America and France (some cassations were published in both English and French).

*The Valley and the Hill*, composed for the Jubilee, was premiered pageant-style in the streets of Liverpool and in front of the Queen by some 17,000 ten and eleven-year-olds from the region. Students had rehearsed for months with recordings provided on cassette tape, and these recordings also accompanied them on the day in addition to extra orchestrations that Williamson wrote at the last moment. Despite his new position, Williamson continued to struggle both financially and emotionally, completing work late or not at all on many projects including the *Mass of Christ the King* and the fourth symphony (the premiere of which, in the presence of the Queen, had to be cancelled).

Although *The Valley and the Hill* cannot truly be considered a cassation for the reasons outlined above, its central position in the works Williamson composed for the Silver Jubilee again reinforces the importance Williamson placed on writing for musically-untrained children. The work may be better compared to Britten's *Noye's Fludde*, with a range of difficulty covered from part to part to distinguish between those with musical experience and those without: "The refrain was then repeated, the better singers, as shepherds, offering a counter-melody [...] The waiting thousands then lifted their voices again with 'We shall fear no evil!' as the Queen and Prince Philip travelled in an open Range Rover at the front of a small cavalcade down Hope Street." (Harris & Meredith 2007, location 8169)

Williamson took a sabbatical in 1978 to try to recover from his series of difficult deadlines, and slowly began to work again in 1979, although he maintained regular performance engagements throughout this period. It is documented that the film score for *Watership Down* (1978), for example, was in fact in large part composed by others (Harris & Meredith 2007, location 8536).

Williamson composed his final cassation (*The Devil's Bridge*) in 1982. The early years of this decade were dominated by the composition of his fifth, sixth and seventh symphonies in addition to a number of shorter works reflecting his royal position, and represent a deliberate move by Williamson away from his busy operatic life of the sixties and early seventies with the wish to establish himself as a serious symphonic composer. However, the non-delivery of his *Fourth Symphony* to the London Philharmonic Orchestra in time for its premiere in the presence of the Queen was not the most auspicious start to this shift, and the *Fifth Symphony* was premiered instead by the Brent Youth Orchestra. Despite this, his completed works for royal occasions were performed and generally received well by the critics, and the *Sixth Symphony* was commissioned by the Australian Broadcasting Corporation and recorded by its seven symphony orchestras in each state or territory.

Williamson's focus on children's music in this period turned from the composition of cassations to scientific research in posts at the Australian National University and the University of New South Wales related to his theories on music therapy which had been developed in the course of running cassations workshops over many years, in many countries and with children who had a wide range of abilities. Williamson's work did not produce any published conclusions, although he delivered an unreviewed paper to the British Society for Music Therapy titled "The Search For Tactile Response to Music in the Non-Verbal Child". A copy has not been located to include in this research, but its existence does again serve as evidence of the importance he placed on the collection of cassations within his own life's work.

Williamson's work over the remaining 13 years of his career (1982 to 1995 - Williamson died in 2003, but did not compose for the last eight years of his life) provides no further context for the cassations, and produced fewer works than the earlier periods, with the usual mixed responses. The seventh symphony was also the last, and the commissioning of works for royal occasions slowed when Williamson was not asked to write music for the wedding of Prince Charles and Lady Diana Spencer.

### **The lack of literature for review**

Despite the framing of the cassations within the most productive periods of Williamson's compositional career, dotted throughout with individual successes and resulting in a catalogue of works for many different forces, there is not a great deal of analytical or biographical work on Williamson's life and work. The above contextual summary draws from a narrow range of critical reviews in newspapers and journals, two insightful but as yet unpublished Ph.D. theses, and one biographical book which focuses more on Williamson's private life than musicological context.

The latter book is *A Mischievous Muse* (Harris & Meredith 2007). Its great strengths lie in fascinating collections of letters to and from Williamson, collected articles and reviews from newspapers and journals, and interviews with both professionals that Williamson worked with and members of his family. Its weaknesses lie in a lack of any great analytical depth of Williamson's work, some inaccuracies in the analyses that *are* included (see chapter 3) and a frequent focus on trivial and personal matters in his colourful life which do not contribute to further academic study.

Given that Williamson's own vitality evidently brought a lot to his music (Barber 1976), this later focus may be understandable. As discussed, Williamson was a composer who composed in many contrasting styles, and sometimes inexplicably so. *A Mischievous Muse* aligns Williamson's compositional ups and downs with his contrasting relationship with alcohol, his relationships with both men and women, and even conversion from one religion to another. However, this angle, when not subservient to a deeper understanding of Williamson's aesthetic or analysis of key works, renders the work (and the portrait it therefore paints of Williamson) as a whole dependent on the opinions of those who chose to contribute and does not provide a detailed enough picture of Williamson the composer. As Philpott points out, "it is to the book's detriment that Meredith and Harris were not able to secure the imprimatur or input of Williamson's partner (and later also publisher), Simon Campion. Campion not only lived with Williamson for the last twenty-five years of the composer's life, but he also travelled with him, performed with him in some rehearsals and concerts, and assisted in notating, orchestrating, publishing and promoting his compositions." (2010, p. 22)



This criticism is levelled by Philpott in her 2010 Ph.D. thesis *An Australian Composer Abroad: Malcolm Williamson and the projection of an Australian Identity*. In this thesis, Philpott examines in detail works Williamson composed for Australia or on Australian themes and his projection of an Australian identity. In contrast to Meredith and Harris' work, Philpott *did* work closely with Campion and so can offer a more complete insight into the composer's psyche and philosophy in the second half of his professional career. The major works studied in detail include *Symphony for Voices* (1960-62), *The Display* (1964), the Sixth (1982) and Seventh (1984) Symphonies, *The True Endeavour* (1988) and *The Dawn is at Hand* (1989), and specifically from Philpott's sociological point of view. The analyses do not, therefore, contribute a great deal of material that can inform the analysis in this research, but Philpott's thesis does also look in some detail at the cassation *The Glitter Gang* (1973-74). Chapter 3 of this thesis includes extensions to and discussions of Philpott's analysis.

Philpott's thesis underlines Williamson's own assertion that he was an Australian composer, despite living nearly all of his adult life in Britain: "when push comes to shove, my Australianism is in me, it's in my blood. I know I'm a Scottish-Irish. I know I have Jewish children. But, in the music, it's only an Australian, whatever the Irish history, who would push through a door marked "pull"." (de Souza 1991, p. 564) It also draws more useful and definite links between the tensions in his life alluded to in *A Mischievous Muse* and the tensions and irregularities between his stylistic approaches to composition throughout his career. As a result, Philpott can break through gossip and connect Williamson's mixed feelings about his place in society with themes in his music:

Williamson responded to these feelings of remoteness and dislocation by composing works that were inclusive in either subject matter (Symphony No. 7, *The True Endeavour* and *The Dawn is at Hand*) or purpose (for example *Travel Diaries*, *The Glitter Gang* and Symphony No. 6); or featured a lone outsider figure ("The Outsider" in *The Display* and Ned Kelly in Symphony No. 7) and/or were set in a remote location (such as *The Display* and *The Glitter Gang*).

(Philpott 2010, p. 363)

An earlier Ph.D. thesis, *Pitch Processes in the Major Symphonies of Malcolm Williamson* by Belinda Kendall-Smith (1994) explores the serial-derived compositional approach to pitch which pervades the Symphonies that she analyses. Kendall-Smith's approach to analysis, and the detailed conclusions she draws, are further discussed in relation to the analytical approach taken in this thesis in Chapter 2. In essence, Kendall-Smith finds that Williamson is essentially a tonal composer who uses serial techniques only loosely, fusing what he learned in studying with Lutyens to create an approach that revolves around a tonal centricity and tone rows of 6 to 10 notes (never all 12). Kendall-Smith sees Messiaen as Williamson's greatest influence, and compares him not with his teachers but with Tippett and Henze.

Kendall-Smith's summary does not conclude Williamson's approach to pitch to be any less accomplished than 'pure' (12-tone) serial composers, instead further framing his variety of styles within the influences upon him:

Due to his inclination towards compositional processes which utilise rows made up of a fixed number of notes, Williamson's technique is often unwittingly mistaken for a direct branch of serialism. In fact, his personalised interpretation and unpredictable application of serialism rejects all of the precepts formally dictated by Schoenberg. Although the employment of a series of notes is a conspicuous trait in many of Williamson's works, the series always consists of less than twelve notes, the use of the series is never constant, nor exclusive and notes are frequently repeated or appear out of order. Furthermore, the one fundamental that is central to a conceptual view of serialism is the complete equality of each note of the chromatic scale. This point is lost in Williamson's works where a series is most often featured in conjunction with a clear tonal centre.

(Kendall-Smith 1994, p. 25)

Kendall-Smith points out other compositional traits of Williamson that do not directly relate to the serial technique, such as a fondness for musical palindromes and the intervals of semitones and any kind of fourths. These features inform the analyses in Chapter 3 and are discussed in Chapter 2, which outlines the analytical method employed in this research.

This introductory chapter has served to frame the work of the following chapters. It has established the importance of Malcolm Williamson's cassations both in the context of

Western art music composers' approaches to music for children and music pedagogy in the period before and at the time the cassations were composed, and it has established the context of his own life, body of work, and compositional philosophy and traits. It has defined the term *musically-untrained children*, and has established that this is a group of performers that recognised art music composers do not often write for, further enforcing the significance of this collection of works.

Chapter 2 will establish a consistent analytical approach to be taken to best understand Williamson's approach to composing in this genre, and also to judge the degree of difficulty in his vocal writing for musically-untrained children. Chapter 3 includes detailed analysis of seven of the ten cassations in chronological order of composition, as qualified earlier in this chapter. Chapter 4 establishes common approaches to writing the cassations discovered in the analyses in Chapter 3, where they exist, and discusses whether these works do indeed maintain Williamson's established compositional processes. These analyses and conclusions are then compared to the context provided in Chapters 1 and 2 to establish whether Williamson significantly modified his compositional approach in writing the cassations, and if so, whether the cassations remain representative of his compositional 'voice'. This comparison is synthesised with the conclusions drawn about the cassations to establish an overview of Williamson's approaches which may be considered by other composers wishing to write in this rare genre of Western art music.

## Chapter 2. Analysis methodology

There is little existing analytical work on Williamson's compositional output. As discussed in Chapter 1, the major work is an unpublished Ph.D. thesis on pitch processes in his symphonies (Kendall-Smith 1994). Of the analysis in that work, Kendall-Smith explains that the combination of tonal centricity, serial techniques and unordered note sets with "Williamson's lack of commitment to specific conventional procedures precludes the use of a single, established analytical method" (p. 13).

### Methods used to analyse Williamson's work within the literature

While the cassations (and for that matter Williamson's operas generally, including those for adults) do not use the same quasi-serial approaches described in Kendall-Smith's work, the in-depth analysis reveals the importance of tonal centricity within Williamson's serially-derived material and provides an important guide to understanding the most challenging writing in the cassations and stylistic features of Williamson's writing. As will be seen, while much of the material of the cassations is diatonic, Williamson employs frequent and unpredictable modulations. There are also passages where the music loses tonal centre or where it becomes highly ambiguous: these passages may be summarised as chromaticism between keys, because they are not long enough to argue as atonal sections in their own right, nor is Williamson employing simple passing chromaticism within functional harmonic system as one might observe in neo-classical or neo-romantic compositions of the period. Williamson also uses modes in the cassations, and sections of two of the works can be considered bitonal.

Kendall-Smith observes that where the analysed Symphonies *do* move through quasi-diatonic sections, the harmony is usually ambiguous, "blending two grammars" (Kendall-Smith 1994, p. 80) of serialism and functional harmony. Often the pitch series themselves, between 6 to 10 notes, never the full 12, include inherent implied harmony, such as the A flat/E flat diatonic octad (an A flat major triad is within the prime) with an A flat tonal centre (enharmonically G sharp in the final movement) in the First Symphony (Williamson 1956-57), or the three triads within the 9-note series of the Second Symphony (Williamson 1968c) (D major, C and C sharp minor). In the First Symphony, the 8-note row is often only presented with 7 notes at once, giving it the

feeling of a diatonic scale. Williamson himself spoke of “flattening out” or making “diatonicised” a series into a major diatonic scale (Kendall-Smith 1994, p. 318).

Kendall-Smith suggests that despite Williamson’s training on his arrival in Britain as a serial composer (as discussed in Chapter 1), Messiaen remains the biggest influence in his serially-derived symphonies. She compares him more with Tippett and Henze than his serial colleagues, concluding “Clearly he is not a serialist, despite his adoption of a general modal concept, which has its foundation in a fundamental collection of notes. Furthermore, he does not think in serial, but rather modal, terms and therefore, feels no pressure to adhere to the rigours of strict serialism. In every respect his particular choice of a tonality or a fundamental tonal centre overrides any manipulation of the predetermined mode. However, the manipulation of the mode is utilised constantly as a vehicle to further reinforce the central tonality or notes which have an associative (i.e. relative major, sub dominant or dominant) relationship to the prime tonics.” (p. 324)

In the course of her research, Kendall-Smith did discover a small body of analytical work (mostly newspaper and journal articles) which drew similar conclusions to her own. For example, Stephen Walsh’s early article in *Music and Musicians* in 1965 disagreed with Williamson’s own assertion that he was essentially a serial composer, concluding “Williamson’s approach allowed him to conceptualise and organise quasi-serial forms without the added harmonic restrictions of an atonal idiom.” (Kendall-Smith 1994, p. 5), while Dorle Soria’s 1984 article concludes “Apart from the elements drawn from serialism and tonality, other features which are illustrative of Williamson’s eclecticism, include palindromic and canonic procedures and these devices display a commitment to composers such as Ockeghem, Josquin and Dunstable” (Soria 1984, p. 8, cited in Kendall-Smith 1994, p. 315).

An unpublished 2004 paper by Philip Gearing on the serial techniques in Williamson’s *Symphony for Organ* was written after the Kendall-Smith thesis but does not cite it. The fact that the newest source he cites is a 1980 article reveals further evidence of the lack of detailed analyses of Williamson’s work. In fact, Gearing notes a number of additional techniques at work, including “passacaglia technique, isorhythm, simply accompanied melody, and Williamson’s characteristic nervous rhythmic idiom” (Gearing 2004, pp.

2-3), in addition to a nine-note series which is sometimes augmented with a tenth pitch, and often also fragmented. Like Kendall-Smith, Gearing identifies material with a “type of tonic-dominant relationship”, (p. 4) tonal centricity and even bi-modal writing in the *Aria* movement. Gearing uses a number of analytical approaches, brought together by simple methodical observation, and while the focus is on Williamson’s adaptation of serial technique, a wide range of stylistic and technical approaches are documented.

While the discussion of Williamson’s adoption of serial techniques may not seem relevant to analyses and comparisons of his non-serial operas and cassations, the importance of Kendall-Smith’s conclusions to this thesis cannot be underestimated. In her analysis of the symphonies, she asserts that “Williamson constantly combines aspects of serialism with a concept of centricity, which is inherent to tonality and in employing both devices, he presents a dichotomous situation. His musical syntax is clearly derived from serialism and tonality, but the individual elements which are adopted, also undergo adaptation. Furthermore, Williamson’s reliance upon centric tonalities completely overrides any manipulation of his adopted mode.” (Kendall-Smith 1994, p. 313)

Williamson’s predisposition to writing music so eclectic that he has been criticised for never finding a single “voice” can be found not only between works but *within* the Symphonies. The dichotomy which Kendall-Smith describes is also found within the cassations where the need to write catchy, eminently learnable and memorable vocal lines for musically-untrained children is often juxtaposed with his desire to change and to challenge, especially harmonically. This point is key in the question of whether Williamson’s albeit eclectic voice *does* survive in the cassations, suggesting it does, in another form. Gearing’s identification of a number of historically older compositional procedures also serves as a point of reference for more “child-friendly” approaches to material which may appear in the cassations, along with the “big tune” (The Times, 18 February 1966) for which Williamson was well known.

Kendall-Smith uses a number of analytic approaches in her work, even considering the Schenkerian method when considering the underlying central tonal movement. The approaches adopted, however, are those most commonly employed in analysing serial

work with numbered pitch sets from “0 to 11 where 0 is the tonic of the series in use or the initial pitch of a particular phrase or cell” (Kendall-Smith 1994, p. 21). Kendall-Smith cites *Analytic Approaches to Twentieth-Century Music* (Lester 1989) as a key source to her approach, but she applies this with much observational analysis and relation or contrast to functional harmony. Because the cassations do not use a serial-derived compositional method, related analytical approaches are not suitable for use in this thesis. Instead, it is Kendall-Smith’s identification of the duality within Williamson’s approach and juxtaposition of formal analytical methods with her own observations which serves as an excellent model for the approach taken in the following chapter.

As discussed in Chapter 1, Carolyn Philpott’s Ph.D. thesis (2010) deals with the composer’s Australian identity and similarly uses no established formal analytic method to draw conclusions from the work. Analysis is, instead, generally descriptive.

The analysis in Chapter 3, then, is designed to specifically focus on aspects of the music which relate to Williamson’s compositional approach to writing for musically-untrained children. Previous analysis completed on Williamson’s work mostly serves to aid understanding of stylistic changes rather than establish a mode to follow, but one common approach to all the discussed work is that descriptive or observational analysis contextualises the more formal analytic methods and draws together disparate approaches to writing. In addition, even the analysis of Williamson’s serial works identify a strong tonal centricity, so attempting to locate one in even the most chromatic sections of the cassations is important.

Some of the analytical approaches followed here also allow comparison of Williamson’s writing for musically-untrained children with his writing for trained children and professional adults. Detailed analysis of the professional works are not within the scope of this study, but melodic complexity comparisons are included to aid observation and comparison. More importantly, this analysis allows quantification of the range of vocal difficulty across the collection of cassations.

A number of different analytic methods have therefore been adopted. In combination, they allow for a mixture of quantitative and observational analysis and comparison, one

of which is not useful without the other (as shown in the literature). For example, voice-leading and diatonic harmony ‘rules’ suggest when a melody or harmony is unexpected only according to those rules, but they are useful as a guide when Williamson is writing in a generally tonal idiom. Similarly, analysis of melodic expectancy following Schellenberg’s two-factor model (Schellenberg 1997) simplification of Narmour’s Implication-Realization model (Narmour 1990, 1992) gives great insight into the degree a melodic shape matches expectancy from moment to moment, but is meaningless without consideration of broader melodic elements such as key/mode, repetition or modulation. Similarly, while much of the analysis revolves around Williamson’s melodic writing for vocal parts, the supporting harmony and orchestration (especially whether there is instrumental doubling) remains of central importance, not to mention the structured introduction of musical ideas, part singing and the use of non-diatonic harmonic approaches.

### **Observational analysis**

The detailed analysis of each section of each cassation begins with a structured observation of the musical content. During research, recordings were made of the analysed cassations to establish the kind of familiarity that would be gained in the intense one-hour rehearsal that Williamson describes as necessary (Williamson 1968a). Where each cassation is analysed, a structural table is provided which connects material between sections. In each section, the key or mode is observed (if unclear or highly chromatic, this is noted), any use of modulation, and the metre. The table also includes averages of Pitch Proximity drawn from Implication-Realization (hereafter I-R) analysis which is explained in greater detail below.

Within each section, the harmony is analysed in great detail, and the melodic shape observed. Any use of chromaticism is noted. Where a section includes one or more modulations, it is noted whether these are predictable according to the established rules of functional harmony (for example, a modulation to the dominant, from the dominant, returning to home key, relative minor or relative minor of dominant) or not (for instance, in *Knights in Shining Armour* (Williamson 1968a) at the *Allegretto misterioso*, Williamson modulates each phrase to the minor key 3 semitones higher).



Features of melodic shape that might aid memorisation - material which I-R analysis (see below) may otherwise designate as difficult to predict - such as repetition or sequence are observed to balance with the note-to-note analysis. Support of the vocal lines is often provided by doubling them in the accompaniment, and it is noted where this is present and where it is lacking, especially when other analysis shows the material to be relatively complex, thus establishing some of the most difficult sections for musically-untrained children. Next observed is vocal range, which varies from part to part (most of the cassations have three separate vocal parts to be sung in equal groups, but some have more), and detail about the average and mean pitch used in each part as well as the three most common notes sung are provided to give a clear understanding of where the majority of the material sits within the tessitura. A computer program is used to quickly ascertain this statistical information alongside the I-R analysis as detailed below.

Throughout all seven cassations, Williamson's rhythmic writing is essentially simple. The challenges to performers are almost always in terms of pitch, whether they may include difficult melodic shapes, or chromatic lines with ambiguous supporting harmony. For this reason, quantitative analysis was not performed on rhythmic elements of the music, but observational analysis notes elements which may make rhythms more difficult to sing such as use of syncopation or very short note durations, as well as elements that would make rhythms easier to perform such as repetition or development of a rhythmic motif. In fact, there is very little use of syncopation across the entire body of work.

### **Implication-Realization melodic expectancy analysis**

Essential to this research is the detailed analysis of melodic complexity of the vocal lines (since these are the majority of parts for the musically-untrained children) in the cassations. It can be ascertained simply by listening that Williamson simplified his vocal writing in the cassations in comparison with his operas for trained children or professionals, but such observation does not provide a quantifiable comparison between one vocal part of a cassation and another, or between the lines in his early and late cassations, or even with melodic complexity between the cassations and the full-scale operas. As with the above discussion of stylistic approaches to harmony, quantifiable

analysis of the complexity of melodic shape can also provide insight into how the established composer maintains their creative ‘voice’ when having to modify their compositional approach for the performers in such a dramatic way.

This component of the overall analyses of the cassations looks exclusively at melodic shape - the movement of pitch in a melody from one note to the next. It draws on the work of Narmour (Narmour 1990, 1992) in his development of the *Implication-Realization model*. In *The analysis and cognition of basic melodic structures: The implication-realization model*, Narmour (1992) concludes that listeners expect melody to do certain things based on five predispositions. To reach this conclusion, Narmour played fragments of melodies to listeners and asked subjects whether the final pitch was expected or not, at any given point (but not the end) of a phrase. Statistics generated allowed for formulation of the five predispositions, which are:

- Registral direction
- Intervallic difference
- Registral return
- Proximity
- Closure

Narmour calls the first two predispositions *principles* because they are the most important, as will be seen. In his paper simplifying Narmour’s I-R analysis (Schellenberg 1997), Glenn Schellenberg refers to all five predispositions as principles for descriptive simplicity and then applied a series of statistical tests to completed research in the field which refined the analytical approach to only two principles without loss of statistical accuracy in predicting perceived melodic complexity.

The analysis carried out in this research on Williamson’s vocal melodies uses the formula Schellenberg designed in his two-factor model of melodic expectancy to analyse and compare the complexity of all melodic lines in the cassations. By summarising the pitch content of each melody in terms of how easy or difficult it may be for cognitive processing by the performers of each work according to Schellenberg’s measure, one melody can be compared with another. Those pieces that are closer to the

psychological processing rules are therefore considered more suitable for musically-untrained children.

To understand how I-R analysis works, it is necessary to understand some of the terminology used. An *implicative* interval is one which is not closed (it suggests another interval will follow: although Narmour's explanation of exactly what he means by 'closed' is not easily summarised, a simple definition would be one that is associated with the final note of a cadence, often ending at the tonic or dominant). A *realized* interval is the interval which follows the implicative interval. In other words, the rules (or principles) of cognitive analysis concern what the listener expects the *realized* interval to do when they have heard the *implicative* interval. See figure 2.1 as an example.

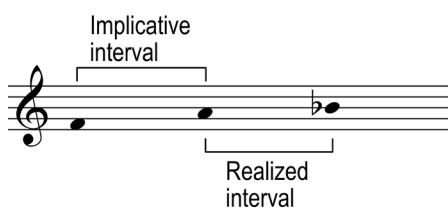


Figure 2.1. The relation of the Implicative and Realized intervals.

The following summarises Narmour's original five principles, and then Schellenberg's simplification into two. The first two principles depend on whether the implicative interval is small (Narmour defines this as 5 semitones or fewer) or large (7 semitones - a perfect 5th - or more). The tritone (6 semitones) is considered threshold (neither small nor large), and therefore any implicative interval of 6 semitones is ignored.

The principle of *Registral Direction* states that small intervals imply a continuation of pitch direction (i.e. if the last interval was small and rising, it implies the next interval will also rise).

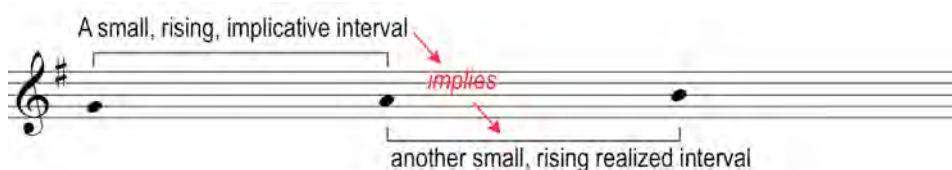


Figure 2.2. The principle of Registral Direction for small implicative intervals.

Large intervals imply a change of direction (for example, if the last interval was a jump up, it implies the next interval will go down or be unison).

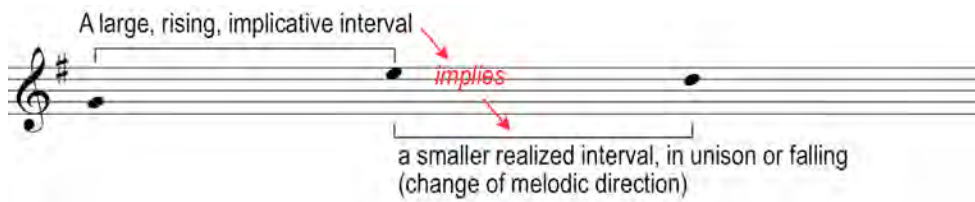


Figure 2.3. The principle of Registral Direction for large implicative intervals.

The second principle is Intervallic Difference. This states that small implicative intervals imply similarly-sized realized intervals (defined at the same size  $\pm 2$  semitones if realized interval changes direction, or the same size  $\pm 3$  semitones otherwise).

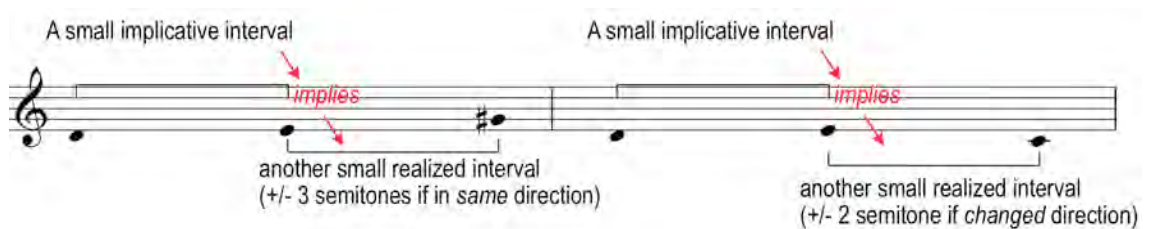


Figure 2.4. The principle of Intervallic Difference for small implicative intervals.

Large implicative intervals imply relatively smaller realized intervals.

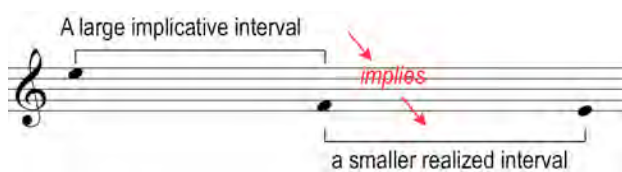


Figure 2.5. The principle of Intervallic Difference for large implicative intervals.

The principle of Registral Return states that a symmetric or approximately symmetric 'melodic archetype' (a familiar sounding melodic shape) is created by the second note of the realized interval being the same (symmetric) or within 2 semitones (approximately symmetric) as the first note of the implicative interval. Further, Narmour finds that symmetric registral return is more implied than approximate symmetric registral return.



Figure 2.6. The principle of Registral Return, showing symmetric and approximately symmetric registral return.

The fourth principle is Proximity. The principle of Proximity states that small realized intervals are implied more than large realized intervals. Again the same definition applies for large and small (larger or smaller than a tritone).

A smaller realized interval is always more implied than a larger realized interval. So a realized interval of 3 semitones is more likely than 4 semitones; a realized interval of 2 semitones is more likely than 3 semitones, and so on.

The final principle is Closure. Listeners naturally segment melodies into sections according to pitch direction and interval size. Closure occurs when a melody changes direction and/or when a relatively smaller realized interval follows a larger implicative interval.

Schellenberg (1996, 1997) did extensive testing of Narmour's I-R model to ascertain whether it would be as accurate at predicting the listeners' responses to given realized intervals from folk melodies and from results of other research if some of the above five principles were removed or modified. Through this process Schellenberg devised the two-factor model which statistically presented greater accuracy and was easier to perform melodic expectancy testing with.

To condense the five principles to two, Schellenberg combined Narmour's Registral Direction and Registral Return into one that he called *Pitch Reversal*. Proximity was retained, and renamed *Pitch Proximity*, and the remaining two principles retired without loss of predictive accuracy. Of Pitch Proximity, Schellenberg concluded that one could measure proximity in number of semitones, where 0 = unison, 1 a semitone, 2 a tone, and so on. As Schellenberg writes, "This principle states that when listeners hear an implicative interval in a melody, they expect the next tone to be proximate in pitch to

the second tone of the implicative interval (i.e., they expect a small realized interval).” (Schellenberg 1997, p. 309).

Through several revisions of the I-R model, Schellenberg developed a grid which allows implicative and realized interval combinations to be plotted (see Figure 2.7). For Pitch Reversal, Schellenberg gives higher values on this grid to Narmour’s Registral Return archetype (where a melodic change in direction returns within 3 semitones of the first note of the implicative interval - Schellenberg does not distinguish between approximate and symmetrical return), and to Registral Direction (sometimes also referred to as “gap fill” in the literature, such as Krumhansl’s own observations of Narmour’s I-R analysis (Krumhansl 1995)). Where a melody continues in the *same* direction after a large implicative interval, Schellenberg gives it a negative value, and combinations that fall outside these conditions are given a value of 0.

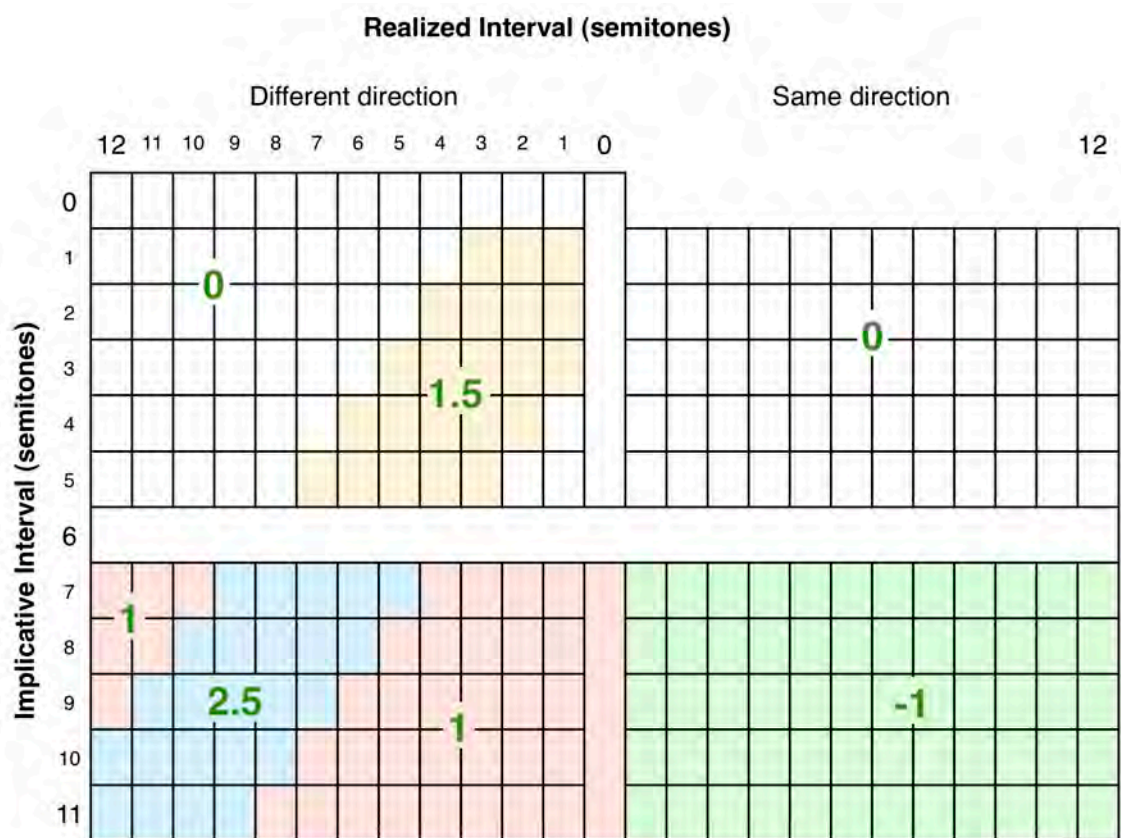


Figure 2.7. Schellenberg’s grid displaying values given to Pitch Reversal principles (1997, p. 310).

### **Automating I-R analysis with a computer program**

To summarise how well a melody fits with cognitive expectancy requires analysis of each combination of implicative and realized intervals within that melody (not including closed intervals, intervals of 6 semitones or implicative intervals of an octave or larger, which are considered special because of how octave equivalence is perceived). each interval must be measured. Where intervals are not proximate or where melodic direction changes, the Pitch Reversal principle should be considered to see whether the combination of intervals remains predictable or not (as shown in Figure 3.6).

Because the melodic writing in seven of Williamson's complete cassations was to be analysed, a high number of calculations were to be made. This process was therefore automated in part by the creation of two computer programs specially for this thesis, to perform the analysis faster. A specification document was written that outlined what the programs should do, and sent to a programmer engaged for the purpose, Roman Molino Dunn. The specification document outlined the following:

#### Pitch Proximity analysis

- The program shall be written in the Manuscript™ programming language and run as a plug-in for Sibelius notation software, published by Avid™.
- In Sibelius, make a selection of at least 2 notes of monophonic melody. Run the plug-in.
- Record intervals in the selection of the melody. There is no need to calculate implied vs realized: it is the same thing to count each interval, one after another.
- Plot in a table the number of each quality of interval, so that anomalies can easily be identified (for instance, if a melody begins each time with a rising perfect 4th anacrusis, but the rest of the melody uses entirely proximate intervals, this will be easy to see). More results in the range of 0-2 suggest a melody that uses more proximate intervals, and so is less complex (easier to predict).
- In addition, calculate the average (mean) size of interval throughout a selection for a quick comparison of one melody's average proximity to another.

### Pitch Reversal analysis

- The program shall be written in the ManuScript™ programming language and run as a plug-in for Sibelius notation software, published by Avid™.
- In Sibelius, make a selection of at least 3 notes of monophonic melody. Run the plug-in.
- The plug-in will need to begin with the first three notes. With these three notes it calculates:
  - ▶ The implicative interval in semitones, and notes the direction (up or down)
  - ▶ The realized interval in semitones, and notes the direction (up or down)
  - ▶ If the implicative interval = 6 semitones or > 11 semitones, this set of 3 notes is ignored, and the plug in moves on to the next set of 3
  - ▶ The plug-in records both intervals and notes whether there was a change in direction. This information is saved to be displayed in a summary window at the end of the plug-in as data A for each set.
  - ▶ The same information is compared to Schellenberg's grid to give a value (-1, 0, 1, 1.5 or 2) which quantifies how expected the resultant implied melodic shape after a jump or change of direction is. This information is saved as data B for each set.
- The plug-in now moves on to the next set of three, which means that the realized interval now becomes the implicative interval, and the next note in the melody forms the realized interval with the second of the new implicative interval.
- This process continues until the end of the selection is reached.
- The plug in now displays:
  - ▶ Data A and B for each set in a table
  - ▶ Data B optionally written into the score
  - ▶ The average B for every set for simple comparison

These programs were created and tested on sample melodies (designed to return results with high and low values for easy identification of errors) and some melodies from the cassations. Testing also allowed for a review of the efficacy of the information produced in comparing one melody with another.



In Pitch Proximity, the program produces a table in Hyper Text Markup Language (HTML) which, as specified, shows number of each quality of interval (see Figure 2.8). Because lower numbers imply a more expected interval than higher numbers, calculating the mean interval in a melody is a good quick way to compare two melodies. However the full range of data is required for proper comparison, because one or two large leaps that may be explained in Pitch Reversal analysis will give a higher mean.

Interval	0	1	2	3	4	5	6	7	8	9	10	11
Tally	6	11	22	2	0	5	0	1	0	0	0	0

Number of intervals analyzed: 47

Average Mean Interval: 1.9787

Figure 2.8. Output from the Pitch Proximity program for one of Williamson's melodies (*The Smuggers' Theme*, from *The Moonrakers*), showing mostly proximate pitches in a melody with a low average to compare.

In Pitch Reversal, the program measures each combination of implicative and realized in a selection, and writes the values over the middle note of the combination in the score. It also produces a table in HTML, but the score provides more useful information, because the values can be seen in combination with large intervals in the melody. The Pitch Reversal analysis is only useful as an overview when a melody does *not* have mostly proximate pitches, because that is when it can contribute extended statistical data about the material. If a melody is entirely proximate, the Pitch Reversal analysis is considered redundant, and therefore not performed.

### Meaningful interpretation of Implication-Realization melodic expectancy analysis

To give results of the I-R analysis of each cassation in Chapter 3 context, other material was analysed. First, the approach was applied to two traditional children's songs, and then to some of the more difficult vocal writing for both adults and trained children in Williamson's large scale operas. The following analyses are intended to show both the extent and limitations of I-R analysis when used alone. In the detailed analyses of the cassations in Chapter 3, Pitch Proximity and Pitch Reversal analyses are given context through the simultaneous analysis of other melodic features (such as the identification

of repeated phrase shapes or arpeggiations of supporting harmony) and features of the setting (such as whether the melody is doubled by the accompaniment) which I-R analysis alone cannot measure.

*Twinkle, Twinkle, Little Star* originated as a French folk song (*Ah! Vous dirai-je*) in the 18th century and remains popular among children today with variations and differing words in many languages. Its resulting Pitch Proximity value is very low, with an average interval between notes of 1.3. The only large interval in the melody is the rising perfect 5th at the start of each of the three phrases - without this characteristic leap, all notes would according to the analysis have very high expectancy. Pitch Reversal analysis further enforces this view, because after the rising 5th the melody does not immediately fall (meet the expectations of gap fill or registral return): this is therefore given a negative value in the analysis (see Figure 2.9).

### Twinkle, Twinkle, Little Star

English Lyrics: Jane Taylor 18th CENTURY FRENCH FOLK SONG

Twin - kle, twin - kle, lit - tle star,\_\_\_ How I won - der what you are,\_\_\_

Up a - bove the world so high,\_\_\_ Like a dia - mond in the sky,\_\_\_

Twin - kle, twin - kle, lit - tle star,\_\_\_ How I won - der what you are,\_\_\_

Figure 2.9 The melody of *Twinkle, Twinkle, Little Star* with Pitch Reversal values written above each realised interval. Dotted slurs indicate extra pitches in the Latin version from the same period.

Another well established children's song is *Frere Jacques*, but this time it is selected for analysis because its melodic movement is *not* mostly stepwise. Frequent melodic intervals of a third are heard throughout, and the final phrase includes repeated falling

then rising perfect fourths. This results in a much higher Pitch Proximity value with an average interval of 2.5 as shown in context in Figure 2.10. In this case the Pitch Reversal analysis becomes more important, to understand whether the wider intervals employed act as would be expected. The score in Figure 2.11 shows the entire melody with Pitch Reversal values as per Schellenberg's table (Figure 2.7) given above each note. It confirms that while the intervals may be wider, the expectancy remains high, with almost all intervals larger than a tone given a positive value. The only exception is the second half of the third phrase, where higher expectancy would be on the melody continuing its downward movement (at the end of bar 5). In this case, to consider whether this moment in *Frère Jacques* is much more complex melodic writing, one must resort to observational analysis that the note-to-note analysis misses: an immediate observation then is that bar 6 is an exact repetition of bar 5, and the flagged note is more easily dismissed. To conclude, as one would expect, these traditional children's songs which have stood the test of time are not shown as melodically complex by a combination of quantitative and observational analysis.

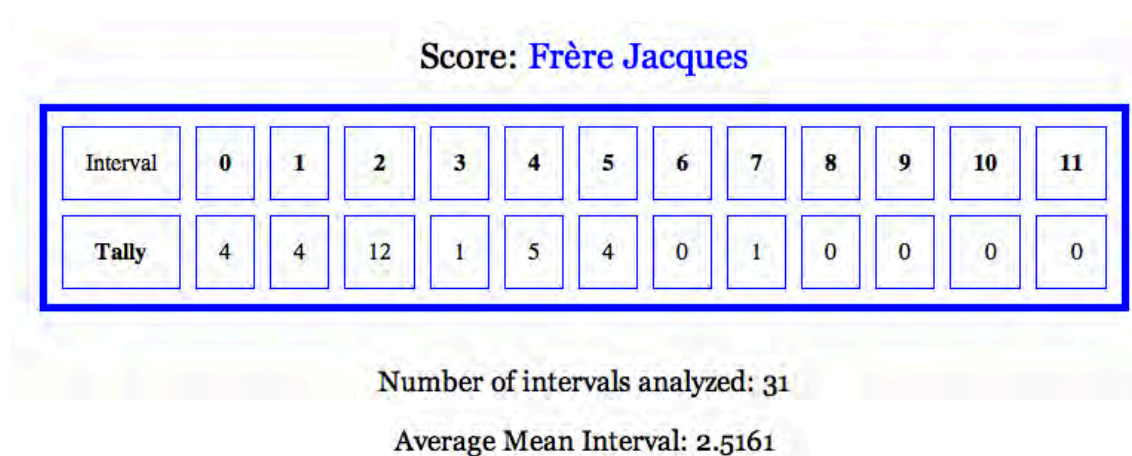


Figure 2.10. Pitch Proximity Analysis of *Frère Jacques*.



Figure 2.11. The melody of *Frère Jacques* with Pitch Reversal values given above each note.

As outlined in Chapter 1, in the first half of his career Williamson wrote many operas. These were generally written in the decade preceding, or at the same time as, the cassations. They therefore provide an established style of vocal melodic writing to compare the cassations to. Many of the operas did include parts for children (in the case of *Julius Caesar Jones* (1965c), these are the majority) but these are for musically *trained* children of specialist schools or ensembles. Other operas are for entirely adult casts. As discussed, while during this period Williamson wrote serial or “serial derived” orchestral music, he did not write serial opera. Some of it (for instance, *Our Man in Havana* (Williamson 1964)) is in Williamson’s distinctly “light” style.

Applying I-R analysis to Williamson’s vocal melodic writing in these operas provides stark contrast to the children’s melodies analysed above, and to most (but not all, as will be seen) of the material found in the cassations, analysed in the next chapter. His most challenging operatic writing is found in *The Growing Castle*, often considered his most austere and serious opera (Harris & Meredith 2007, Chapter 12; Walsh 1968, pp. 10-2). Analysis confirms this: from the opening angular line of the Officer (see Figure 2.12) in Act I scene i, whose rhythms rock between triplet and duplet divisions and Pitch Proximity average is 4, to the harmonically unstable line of Agnes in the closing scenes which also show some negative values in Pitch Reversal analysis (Figure 2.13).





2.14) and children's parts (for example the Seamstress' Son's melody shown in Figure 2.15).

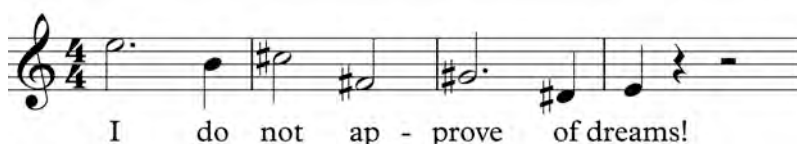


Figure 2.14 An excerpt of The Mayor's part at figure 4 of *The Happy Prince*, with a Pitch Proximity value of 3.7.



Figure 2.15. The Seamstress's Son's Melody from *The Happy Prince* at figure 20. It has a wide Pitch Proximity value of 4.1, but Pitch Reversal analysis does not result in any negative values.

Figure 2.16 shows pitch reversal analysis of the opening solo phrases of the child's part of Susan in Act I scene ii of *Julius Caesar Jones* which records a Pitch Proximity value of 2.8, but also several negative Pitch Reversal values.



Figure 2.16. An excerpt of Susan's first entry in Williamson's *Julius Caesar Jones* (1965) showing Pitch Reversal values.

Analysis of the cassations in the next chapter will show recurrently lower Pitch Proximity values than in the above examples, and where values given are higher, they are usually easily explained through use of repetition. Because Pitch Proximity is usually low, Pitch Reversal analysis is not required, but where it is it often shows no

negative (unexpected intervals) results. This is as would be expected: however, the analysis remains extremely useful to compare one section or part of a cassation against another. For example, to compare entire works one-another, and where the music is more complex than might be expected for musically-untrained children, to compare it to the above examples of Williamson's full length operas.

Despite the usefulness of this approach, it must be reiterated that I-R analysis is only one part of the approach outlined in this chapter and put into practice in the next. Often harmonic analyses are more important than I-R analyses because they can identify unsupported melodies set over ambiguous harmony which the quantitative analysis may mistakenly show as having high expectancy (I-R analysis does not take into account tonality, lack of tonality nor chromaticism because research shows they statistically have no effect on results). Similarly, I-R analysis can suggest a melody has low expectancy because the pitch proximity values are high, when in fact the melody is an easily-remembered arpeggiated pattern. Some Pitch Reversal analyses will show regular negative values that can be understood as simple repeated phrases, or use of sequence. As a result, it is the synthesis of all approaches which will provide a thorough and deep understanding of Williamson's approach to writing for musically-untrained children in the seven cassations.

## Chapter 3. The Analysis of Williamson's Cassations

As established, seven of the ten cassations were analysed in great detail for this chapter. Presented in this chapter in chronological order is a short summary of the story, compositional approach and a structural table for each work. Detailed analysis of some individual sections is also provided for each cassation where Williamson's writing is at its most ingenious or challenging for musically-untrained children. Some cassations attract more in-depth analysis than others. The seven works are then compared and similarities in approach are identified in the final chapter, especially where methods used suggest identification of Williamson's "voice" or a unified approach to writing for musically-untrained children.

### The Moonrakers

The first of Williamson's cassations, *The Moonrakers* (1967) is actually listed in his notes as "for Audience and Orchestra" (although in French *pour public d'enfants et orchestre élémentaire*) with the instruction "This opera which lasts eight minutes can be performed in the simplest settings. The unison choruses are to be sung by the music-readers, while the non-musicians make an "orchestra" of simple sound effects. In the score these effects are notated on a single line." (Williamson 1967, p. i) This is in contrast to his own later developed definition of a cassation - that it is a mini-opera to introduce the mechanics of the form to young people - but such contradictions are common in this body of work and are pointed out in Chapter 1, including the high number of cassations which were originally actually composed for specialist groups or large-scale concerts with symphony orchestras.

As a case in point, this first cassation was a commission by the Brighton Festival and was premiered by the Orchestra of Trinity College of Music, London, with the singing and effects performed by the audience. The context of the commission and the premiere informs the developing philosophy behind the form.

There are three parts, each for groups rather than soloists as in all cassations: In this case they are the Smugglers, the Villagers and the Revenue Men. Another feature common to every cassation is that *The Moonrakers* has clear sections but not separate



scenes or movements. It moves straight from one section to the next, sometimes with a pause over a bar line to rest for just a moment (for example, 4 bars before E). The story is extremely simple: the Villagers and Smugglers are working together to smuggle brandy into the country. The rather pompous Revenue Men try to catch them in the act, but they pretend to be country simpletons (while hiding the barrels in a large pond), and get away with it.

Location	Material	Key	Modulation	Metre	Pitch Proximity
Start to 1 after <b>A</b>	Introduction	A major	None	6/8	N/A
2 after <b>A</b> to 4 after <b>B</b>	Smugglers' Theme	D minor	F major (relative major)	6/8	2
5 after <b>B</b> to <b>C</b>	Introduction	A major	None	6/8	N/A
<b>C</b> to <b>D</b>	Smugglers' Theme	D minor	F major (relative major)	6/8	2
1 after <b>D</b> to 4 before <b>E</b>	Transition	Chromatic development	Chromatic	6/8	N/A
4 before <b>E</b> to <b>J</b>	Hump the Kegs	C major, chromatic ostinato	None, but movement to D flat	3/4	3.2
<b>J</b> to 4 after <b>J</b>	Revenue Men theme	B flat major	None	2/4	N/A
<b>5</b> after <b>J</b> to 6 before <b>M</b>	Hump the Kegs	C major, chromatic ostinato	None, but movement to D flat	3/4	3.2
6 before <b>M</b> to 5 before <b>M</b>	Transition	Glissando to E	None	2/4	N/A
4 before <b>M</b> to 6 after <b>O</b>	Revenue Men theme	B flat major	Chromatic transition, modulation to D major	2/4	2.3
4 before <b>P</b> to <b>R</b>	Strange theme	E major	Some ambiguous harmony, modulation to F# major and back to E maj	6/8	4.1

Location	Material	Key	Modulation	Metre	Pitch Proximity
<b>R</b> to 4 before <b>S</b>	Revenue Men theme developed	B flat major	None, but use of diminished arpeggios	2/4	N/A
4 before <b>S</b> to <b>T</b>	Revenue Men theme	A major	None	2/4	N/A
<b>T</b> to <b>U</b>	Introduction material	A major	None	6/8	N/A
<b>U</b> to end	Smugglers' Theme	A major	D minor	6/8	2

Table 3.1. Structural table of *The Moonrakers*.

The following analysis refers to bar locations by rehearsal mark letter names, because bar numbers are not given in the published Weinberger edition (Williamson 1967). Bar numbers are used where measuring is important.

*The Moonrakers* uses a limited number of musical themes to tell its story. Each theme is simple in nature, but often supported by more complicated or unexpected harmonic devices such as chromaticism, modulations to unrelated keys, or harmony outside the simple diatonic scale in which the melody is written.

Williamson's approach to harmonic writing in this work is often to use series of parallel chords (for instance the opening, 4 bars before C, or at letter O), a compositional approach called *planing*, *harmonic parallelism* or *parallel voice leading*, historically used by composers such as Debussy or Chopin. In this context it creates a strange effect rather like a child who has mastered their first triad at the piano and then moves the same hand position around the keys - a naive or basic kind of harmonic voicing when combined with such simple harmonic material, which any established composer such as Williamson would have been educated away from using. In addition to this, although usually writing in established major or minor keys, Williamson often uses chords that the same level of education of formal harmony would have called 'weak': chords such as iii or vii. The diatonic melodies and establishment of matching tonic chords at the start of each section suggest a formal approach to harmonic writing, but instead Williamson often uses chromatic movement, harmonically ambiguous chords and, between and within sections, often makes use of modulations to keys which are not

related in a formal manner (for example, he rarely modulates to the dominant key, or the relative major/minor).

The use of the unusual modulations is obviously deliberate - the tonic of each key is usually close (the exception being the introduction and Smugglers' theme), possibly so that the vocalists can hold onto their pitch through the changes - and it further enforces the impression of a childlike composer with no understanding of traditional harmonic relations despite the inference of the melody. If one regards the structural table in Table 3.1, this can clearly be seen from letter E, with rocking chromatic movement between C and D flat major, then modulation to B flat major and so on.

*The Moonrakers* is structured around repetitions of four melodies, here named "Smugglers' theme" (first appears in the third bar of A), "Hump the Kegs" (anacrusis to letter E), "Revenue Men's Theme" (M) and "Strange Theme" (P). There is also some introductory material which is repeated later in the piece, but which is not included in the action. Each song is repeated a number of times.

The vocal parts in *The Moonrakers* are written in a mid treble voice range - typical for children's educational music as discussed in Chapter 1. Parts are doubled throughout by the piano part, and each part has a similar vocal range of just over an octave. As can be seen in table 3.2, the Villagers only ever sing in unison with the Smugglers, and have the same vocal range of B3 to C sharp 5. The King's Revenue Men have a slightly wider range of C4 to E5, and sing in the higher range more consistently. This can be seen in analysis of median pitch (B flat 4 against F4 or F sharp 4 for the Smugglers and Villagers).

Part, section	Range (occurrences)	Median Pitch	Most common 3 pitches (occurrences)
Smugglers, opening to D	D4 (16) to C5 (2)	F4	F4 (24), G4 (22), D4 (16)
Smugglers <i>and</i> villagers, E to J	C4 (17) to C5 (10)	F4	G4 (30), C4 (17), E4 (16)
King's Revenue Men, M to 6th bar of O	C4 (1) to E5 (1)	B flat 4	D5 (20), A4 (14), B flat 4 (14)
Smugglers <i>and</i> villagers, P to R	B3 (5) to C sharp 5 (2)	F sharp 4	E4 (11), G sharp 4 (9), B4 (6)

Table 3.2. Vocal range of parts in *The Moonrakers*.

Pitch Proximity averages are shown in Table 3.1. The “Strange Theme”, sung by the Smugglers and Villagers has the highest Pitch Proximity value (thus suggesting the melody has least expectancy) because of its arpeggiated nature as well as ambiguous harmony and unexpected modulations, and is discussed in greater detail below.

Other material is relatively simple, although characterised by sudden modulations and other changes of material, such as the A major chord over a D in the bass transitioning clumsily to D minor without any inference as chord v (or V) of D minor at letters A and C.

At letter D the Smugglers land at the dock as they finish singing their theme, still in D minor, and a foreboding dissonance is added into the piano part with E flat, A flat and C sharp against a D pedal, each time resolving on the second beat. The piano then develops this dissonance, still over a D pedal, by chromatically rising in the inner and top voices, eventually ending on an open perfect 5th over G.

There is a change of material as well as metre (to 3/4), 4 bars before E. Echoing the parallel movement of the introduction, but retaining the chromatic movement of the transition section that has just ended, the piano moves between open perfect fifths on C then D flat, with inner parts also moving parallel in perfect fourths. This two-bar pattern repeats throughout this section, accompanying the “Hump the Kegs” melody to letter J.

This section is the first example of the parts singing against each other in the cassations, an approach Williamson uses usually only when he has first introduced the material

alone. The vocal parts divide into two and then three parts: Williamson’s “non-musicians” begin chanting “Heave - ho!”, unpitched, and then the “music-readers” (this time the Smugglers and Villagers), sing the “Hump the kegs” melody.

At 4 bars before G, the Smugglers and Villagers begin singing in simple canon. The canon is unison, at 4 bars. The choice of a four bar duration relates to the structure of the “Hump the kegs” melody, which itself can be clearly divided into four groups of four bars. The first four repeat a rising stepwise line from C to G (two bars each); the next four contrast this with intervallic leaps down and up over the tonic and dominant scale degrees. The third four-bar group moves diatonically parallel to the first 4 bars (with identical rhythm and words) a third higher; and the final 4 bars are a variation on the second group, with some changed words.

Given the unexpected high average value for pitch proximity, it is worth investigating whether the melody conforms to Pitch Reversal expectations, especially if applied to just bars 5 to 8 or 13 to 16. Figure 3.1 shows Pitch Reversal analysis for the whole section, with values per Schellenberg’s grid written above the middle interval of each pair of implicative and realized intervals. As might be expected, values recorded in most of the first section suggest that where the melody changes direction or jumps, it fits to the expected melodic archetypes. In the second half, exact registral return between “sharp!” and “care” gives a high value, while continued direction of melody after a large interval (for instance between “Take” and “Now”) gives a negative value, suggesting that it is not expected at all. This low expectancy may be mitigated by the fact that the notes are the tonic and dominant degrees of the prevailing key.

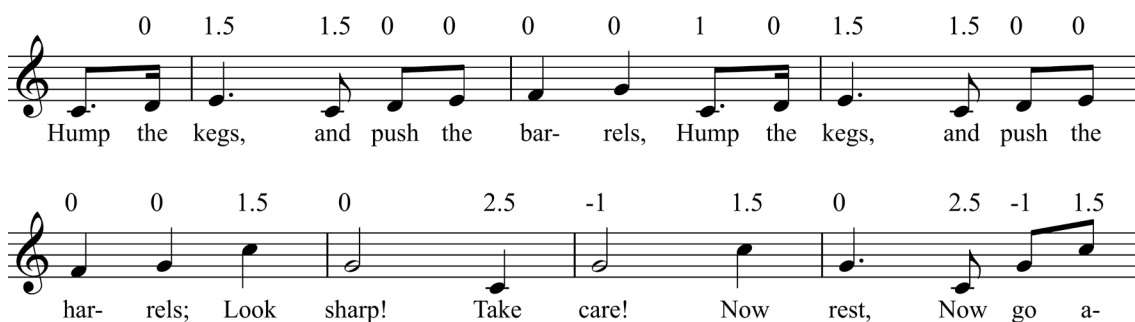




Figure 3.1 Pitch Reversal analysis of the “Hump the kegs” melody.

The material then returns to its simple origins, with the Revenue Men's fanfaric  and  rhythms and pitches accompanied in oom-pah style.

At letter P the "Slow and strange" section in 6/8 and E major begins. As the Smugglers and Villagers are supposed to be showing their simplicity, their melodic line is reduced to simple arpeggios. This is contrasted with more sophisticated harmony in the accompaniment, a common device in this and other cassations.

A two-bar chord progression is established in the introduction to the "Strange theme" (Figure 3.2) which repeats many times through the progression. With E major as chord I, it repeats I - vi7 - V7 - ii7 - V7 three times before being altered. Williamson contrasts the simplistic arpeggiations of the vocal line with these added 7th chords when the melody is added at P. In the third bar of P this chord progression begins its 4th repetition, but is varied in the fourth bar with change to chord ii instead of the expected chord V7, and then a chromatic scale up from G, in parallel major chords on the second beat.

The accompaniment seems to have returned to the same repeated progression in the fifth and sixth bars of P until a sudden G minor chord (completely outside the established key of E major) signifies a shift in both melody (which spells out F sharp minor thirds) and accompaniment for two bars. In these two bars the accompanying harmony is ambiguous, suggesting no definite modulation to another key, but with many notes outside the key of E major. The F sharp minor chord is the most consonant moment, and fits with the melodic line best. This feeling that the harmony has shifted up a tone is echoed later with a properly established modulation to F sharp major.

Following the two harmonically ambiguous bars, the established E major pattern returns two bars before Q and is repeated immediately. On the repetition the modulation comes: the final chord of C sharp major 7 acts as chord V of F sharp major, and the melody and progression repeat once a tone higher, in F sharp major, with a slight extension in the second bar of both harmony (I - vi7 - V7 - vi - ii - V7) and melody (which rises over an F sharp major arpeggiation).

The V7 in F sharp major falls to F sharp minor which then acts as chord ii7 in E major, a preparatory chord for the perfect cadence that follows. In this section Williamson combines the parallel writing evident throughout *The Moonrakers* with ambiguous and chromatic harmony *and* more expected diatonic harmonic devices (although even the one well established modulation is to a weak relative key). Over this is the simple arpeggiated melody:



Figure 3.2. The “Strange theme”.

Because of the arpeggiated nature of this melody, most intervals are 3, 4 or 5 semitones. Therefore the examination of Pitch Proximity analysis might make one conclude the “Strange theme” is a more difficult melody to learn than others in this work. Taking into account Williamson’s unexpected harmonic shifts, such an assertion may well be true. As in the Revenue Men’s theme, Pitch Reversal analysis show sthat while there is much change of direction and some large leaps in the melody, the melody behaves as expected within those criteria. To show that the Revenue Men are indeed bemused by the Strange Theme, Williamson juxtaposes their fanfare motif with a rising then falling arpeggiation of minor thirds (like two stacked diminished 7th chords), moving in parallel perfect fourths.

### **Knights in Shining Armour**

The second of Williamson’s cassations, and the first to include his description of them as “a simple method of teaching children of all ages the mechanics of opera”, the

melodic writing and harmonic accompaniment of the outer sections are less complex than *The Moonrakers*, but similar compositional approaches are exhibited.

Putting *Knights in Shining Armour* (Williamson 1968a) in context, in 1968 Williamson also composed the cassation *The Snow Wolf* as well as a number of larger works including the Symphony No. 2 and the chamber opera *The Growing Castle*. *Knights in Shining Armour* is one of the shorter cassations, lasting under 6 minutes if performed at the marked tempi. There are three parts in the work: The Knights, the Robbers, and the Sins; again, each part sung as a group. Again the story is simple and humorous: some Robbers follow Knights into a forest and watch them putting collected treasure in a magic chest. When the Knights leave, the Robbers prise open the chest but instead of finding treasure release the seven deadly sins, dragons and hydras. These are going to kill the Robbers but the Knights return and rescue them. It closes, ironically, with the Robbers planning to attempt the theft a second time.

The published Weinberger edition has no bar numbers or rehearsal marks. For the sake of clarity, this analysis will refer to bar numbers and sections. If referring to the published score, Table 3.3 is provided to assist following the analysis.

Top of page/Tempo or entry marking	Bar number
2	17
The Robbers	25
3	31
4	40
Allegro misterioso	41
5	57
Andante	61
6	82
Tempo Primo	83
7	92
8	102

Table 3.3. A guide to bar numbers and sections in *Knights in Shining Armour*.

*The Knights in Shining Armour* is divided into three roughly equal sections, with the same harmonic material driving the outer thirds. This material is based on the initial progression of I - vi - ii7 - V and is varied to provide some harmonic contrast. Each



vocal part in these sections is written to fit with the progression as explored in bars 5 to 12, and thus they can be sung together - and are. In the middle section, chromatic material or unexpected modulations contrast with relatively simple vocal material, exhibiting similar compositional approach to *The Moonrakers*. The structure of the work is summarised in greater detail in table 3.4.

Location	Material	Key	Modulation	Metre	Pitch Proximity
1-4	Introduction	D major	None	4/4	N/A
5-12	Knight's Theme	D major	G major	4/4	1.83
13-16	Knight's Theme development	D major	G major, A major	4/4	1.69
17-24	Knight's Theme	D major	G major	4/4	1.83
25-32	Robber's 'Whispered' Theme	D major	B minor	4/4	0.44
33-40	Above two themes, together	D major	G major	4/4	1.83/0.44
41-44	Intro to next section	G minor	None	4/4	N/A
45-60	"Now they've gone" theme	G minor	Bb min, C# min, E min, chromaticism	4/4	1.27
61-84	The Sins Theme	No fixed key	Ebm, Cm, Bbm, F#m, Bm, G#m	3/4	0.64
85-111 (end)	The Knights, Robbers 'Whispering' and Sins themes combined	E major	None	4/4	Sins: 4.1 Others as above

Table 3.4. Structural Map of *Knights in Shining Armour*.

All parts are written in approximately the same vocal range (from around middle C to E in octave 5). Unusually, the Sins have less material than the others (the parts in most cassations are approximately equal in duration), which would lead one to expect a simpler part. Instead, the Sins' parts have a wider range and melodic shape which meets expectancy less according to Pitch Reversal analysis than the other two parts, although this is not necessarily reflected in the statistics given in tables 3.4 and 3.5. The Robbers sing in a generally lower and more comfortable range than the Sins or the Knights. The melodic writing has a low Pitch Proximity and regular, repeated rhythm throughout,

with the exception of the Sins in the final section who sing falling octave glissandi.

Part	Range (occurrences)	Median Pitch	Most common 3 pitches (occurrences)
Knights	D4 (6) to E5 (2)	A4	B4 (36), A4 (43), F#4 (23)
Robbers	C#4 (12) to E5 (2)	F4	E4 (50), F#4 (43), D4 (31)
Sins	Bb3 (1) to E5 (7)	Bb4	E4 (23), Bb4 (11), Db5 (9)

Table 3.5. Vocal range of parts in *Knights in Shining Armour*.

The opening harmonic progression dominates the work. Williamson develops it in a number of ways to underpin everything but the centre section from bar 41 to bar 84. Methods of harmonic development employed include harmonic variation and substitution, modulation and re-setting of the original progression. The opening iteration of this progression is shown in Figure 3.3.

5

*mf* staccato

D major: I vi ii<sup>7</sup> IV<sup>7</sup> V (4 - 3) vi ii<sup>7</sup> V V<sup>7</sup> III (9 - 8)

9

vi v<sup>7</sup> = ii<sup>7</sup> in G major V<sup>7</sup> I II<sup>7</sup> = V<sup>7</sup> in D major I IV<sup>7</sup> V V<sup>7</sup> I (6 - 5)

G major D major

Figure 3.3. Harmonic analysis of bars 5 to 12 of *Knights in Shining Armour*.

As can be seen, the first 2 bars of the progression are the same as the introduction (I - vi - ii<sup>7</sup> - V), but embellished with the G major 7 chord in first inversion, and a 4-3 suspension on V. These three chords also introduce The Robbers at bar 25, and so are established as the starting point for all thematic material in this section. In the second half of bar 9 the minor chord on the dominant scale degree signals a modulation to G major, of which D major is the dominant. The progression then cadences in G major in

bar 10 before modulating back to D major in bar 11 when the major chord on the supertonic scale degree becomes the dominant 7th in the home key and begins a protracted cadential figure (V7 - I - IV7 - V - V7 (6-5) I).

Bars 13 to 16 are a continuation of The Knights' Theme. Williamson extends the above harmonic progression through a series of modulations to allow a four-bar extension to the melody which does not appear again in the work. The modulations move from G major to an ambiguous chord at the start of bar 15 - indicated in figure 3.4 as a pivot chord back to D major - and then with a series of chromatic changes which suggest a move to the secondary dominant (an E major chord as dominant of A major), a prolonged cadential figure to end in a perfect cadence with chord I in D major provided on the first beat of bar 17.

13

IV = I in G major   V<sup>7</sup>   V<sup>7</sup>   I

G major

vii<sup>7</sup> = iii<sup>7</sup> in D major (implicit V)   #iv<sup>9</sup> = II<sup>7</sup> (= V of V)   ii<sup>7</sup>   V<sup>7</sup>

Overarching D major perfect cadence preparation via secondary dominant.

Figure 3.4. Harmonic analysis of bars 13 to 16 of *Knights in Shining Armour*.

The melody in bars 13 to 16 are again a repetition of the same two bar phrase, but this time it is diatonically inverted as well as transposed. It would be a stretch to suggest that this was an example of Williamson's extended serial technique, given the inversion is diatonic and the use diatonic inversion in composition was one of J.S. Bach's developmental tools. More simply, the connection between the repeated phrases provides repetition but allows Williamson to create melodic and harmonic variation in what is otherwise relatively simple material.

The Robbers sing for the first time in bar 25 in what will be called the "Whispered theme". The key remains in D major and the harmonic progression is entirely related, but Williamson changes the setting of the accompaniment into simple chords, removing the fanfaric rhythms of the Knights, and allowing the Robbers to 'whisper' their plans to one another. Williamson's variation in harmony (shown in Figure 3.5) is especially

clever here: the changed sequence and use of half diminished chords contributes to the contrast created by the changed rhythmic and textural material, yet he carefully ensures that the simple melodic material will fit to the original progression of The Knights' Theme (as seen at bars 5 to 12, and repeated at bar 17). This allows the two parts to be sung simultaneously from bar 33 with a repetition of the accompaniment from bar 5. The rhythms used in the two melodies interlock cleverly, with the quaver movement of the Robbers beginning once the long note of the dotted rhythm has begun in the Knights' part.

(D major:) I vi ii<sup>7</sup> V I vi vii<sup>°</sup> III  
= V in B minor

5

I ii<sup>°</sup> v iv VII vi ii<sup>7</sup> V I  
= V in D major

B minor D major

Figure 3.5. Harmonic analysis of bars 25 to 32 of *Knights in Shining Armour*.

New harmonic material is introduced for the first time at the Allegretto misterioso at bar 41. It is highly chromatic. The introductory 4 bars simply preview the first four bars of the Robbers' "Now they've gone" theme. The Now they've gone theme is highly chromatic, and is supported by simple harmony with rising modulations of a minor 3rd. Beginning in G minor, Williamson keeps a G pedal throughout to establish the tonic against the chromatic melody, and harmonises each bar with alternating tonic and dominant chords (sometimes also decorated with a seventh). At bar 49 there is a sudden modulation to B flat minor, and then the same progression and melody is repeated in this key.

At bar 53 the material is again modulated up a minor third, this time to C# minor. This time Williamson harmonises two bars with chord I and I7 and then performs the

modulation again, this time to E minor. The section is ended in bars 57-60 with a unison falling chromatic scale in both melody and accompaniment. The closing D major chord (instead of ending in E minor or G minor, which would have harmonically closed the section) comes as an ironic afterthought of the Knights' Theme.

While these frequent modulations and chromaticism may suggest a more complex melody for the Robbers to sing, the chromatic scalar movement results in low pitch proximity, and the nature of the repeated patterns via modulation assist learning of the melody. Pitch Reversal analysis reveals that where the melody changes direction, it conforms to archetype (there are no leaps larger than a tritone). The following Sins vocal material is also relatively simple, based around a simple repeated phrase with entirely unison or octave patterns in 3/4, transposed each time down two semitones, apart from the final phrase in bars 75 to 77 which is transposed by only one semitone. These phrases are supported a chord progression of held triads which does not support any obvious harmonic direction toward a tonic. This exemplifies one of Williamson's common approaches to writing in the cassations: the melody is kept relatively simple, while the accompaniment may be unexpected, or dissonant. The section finishes with chromatic accompaniment and dissonant juxtaposition of low fifths as the Robbers battle with the Sins until resolution when the Knights return.

The final section, which is established two bars after the Tempo Primo at bar 85, reintroduces the dotted rhythm, 4/4 metre and major tonality of the Knights immediately with a 'fanfare' on B, the dominant of E major, the new key signature. Again Williamson combines established vocal lines over the original harmonic progression. All material which is repeated directly from earlier sections is transposed to E major. At bar 108 a four bar refrain closes the work. The Sins do not sing; the Knights repeat the end of their melody to new words "We've left the job well done", while the Robbers also repeat their Whispered theme with new words. The accompaniment is in the style of the accompaniment to the first iteration of the Whispered theme (bar 25) but follows another variation of the established progression (I - ii<sup>7</sup> - V<sup>7</sup> - vi - ii<sup>7</sup> - V<sup>7</sup> - I) which allows Williamson to prepare the final cadence in E major.

## **The Snow Wolf**

Composed in the same year as *The Knights In Shining Armour*, *The Snow Wolf* (Williamson 1968b) features another of Williamson's own simple tales: a trans-Siberian train breaks down, and its children passengers get off to play despite the warning that there may be wolves outside. Wolves are indeed outside, and when the train is fixed and leaves without the children, dramatic tension suggests the children will be eaten by the wolves, but instead they play happily together.

While Williamson intended his cassations to teach children the *mechanics* of opera, they do not seem to have been intended to teach the classical operatic forms that he used in his adult operas. *The Snow Wolf* is the only cassation to have marked recitative sections, although this description can be taken lightly, being for a group of singers. The expectation would have been of a change of style, more rubato, as if spoken.

Harmonically *The Snow Wolf* is extremely interesting not because of the chromaticism, unusual modulations or chord relations employed by Williamson which were present in the first two cassations, but because there is a pattern throughout the work to relate keys or chords within sections by minor seconds or thirds (in the case of thirds, major or minor).

These patterns begin at bar 61 in the Wolves recitative, where there is no tonal centre and what may seem like arbitrary chords are all related by thirds. The same happens in the Drivers recitative, and following the next section the Passengers' melody 2 modulates up a minor third. From that point to the end either modulations or choices of chords are related by these intervals, along with parallel changes from minor to major tonalities with the same tonic which also drive the key changes at the beginning and the end of the work.

Similar to the structure of the first two cassations, *The Snow Wolf* does repeat thematic/melodic material throughout the work, but the structure is more developmental due to the material for the Passengers changing as the story progresses. They have three separate melodies, all of which are repeated at least once. The Passengers therefore have much more material to learn than the other parts, although the Wolves do also double their third melody at the end. In this cassation there are four parts, with the Drivers and

Stokers on one part. The Train part is also often doubled by those parts, and there is a clear distinction in range between these two pairs, with the Wolves and Passengers fitting a soprano range more comfortably (the Passengers reach as high as a top G, which is very high for primary children according to the research cited in Chapter 1) and the others a contrasting alto range (the Drivers and Stokers at the other end of the possible range with a bottom G). Detailed vocal range information is shown in Table 3.6.

The result is that for the first time in a cassation there is clear distinction between parts: this would allow a coordinating teacher to choose stronger or older singers for the parts with more material (and more challenging material) to learn.

Part	Range (occurrences)	Median Pitch	Most common 3 pitches (occurrences)
Wolves	C4 (16) to F5 (3)	A flat 4	C5 (32), G4 (29), B4 (28)
Passengers	B3 (2) to G5 (1)	G sharp 4	A4 (38), E4 (29), G4 (27)
Drivers & Stokers	G3 (1) to C5 (2)	E4	D4 (73), E4 (46), A4 (33)
Train	C4 (16) to B4 (2)	E4	D4 (85), E4 (52), F4 (36)

Table 3.6. Vocal ranges in *The Snow Wolf*.

Table 3.7 also shows the increasing structural complexity because of the more through-composed, narrative-based approach.

Location	Material	Key	Modulation	Metre	Pitch Proximity
1-20	Wolves' theme	C minor	None, some chromaticism	2/4	2.32/1.77
21-44	Train theme	C major	None	2/4	1.87
	Passenger melody 1				2.63
	Drivers melody				2.22
45-60	Wolves' theme (recap)	C minor	None, some chromaticism	2/4	2.32/1.77

Location	Material	Key	Modulation	Metre	Pitch Proximity
61-70	Wolves recitative	No tonal centre	Chords related by 3rds	2/4	0.7
71-78	Recap of train theme, passenger melody 1 and drivers melody	C major	None	2/4	As above
79-97	Driver's recitative	No tonal centre	Chords related by 3rds	3/4	0.3
98-105	Passenger melody 2	C minor	None	2/4	0.84
	Wolves' theme				2.32/1.77
106-113	Passenger melody 2	E minor	No, but new harmony	2/4	0.84
114-125	Instrumental	No tonal centre	Chromatic, some chords related by 3rds	3/4	N/A
126-141	Passenger melody 3	C# minor	Passing mod to E minor	6/8	2.42
142-157	Passenger melody 3 with "Chuffs"	D minor	Passing mod to F minor	6/8	2.42
158-165	Train theme	D major	None	2/4	1.87
165-181	Wolves' theme	D minor	None, some chromaticism	2/4	2.32/1.77
182-185	Passengers Recitative	Pivot to C# minor	Chromatic	2/4	N/A
186-218	Passenger melody 3 with "Chuffs"	C# minor	D minor plus passing mods	2/4	2.42

Table 3.7. The structural outline of *The Snow Wolf*.



Again, The published Weinberger edition has no bar numbers nor rehearsal marks. For the sake of clarity, this analysis will refer to bar numbers and sections. If referring to the published score, Table 3.8 is provided to assist following the analysis.

Top of page/Tempo or entry marking	Bar number
3	21
4	33
5/Wolves entry	45
6	66
7 (3/4 recit)	79
8	98
9/Adagio piano only	114
10	126
11	159
12	174
13	188
14	204

Table 3.8. The alignment of page numbers to bar numbers in the published edition of *The Snow Wolf*.

As mentioned, this cassation contains many more examples of what was establishing itself by now as Williamson's tendency towards writing mostly simple melodic lines but accompanying them with unusual harmony or frequent unexpected modulations. The opening Wolves melody actually has high pitch proximity (see Table 3.7) with many leaps, but is made easier to learn by being a pattern, being an arpeggiation of a tonic minor major 7th chord, cycling downward over an octave from C5 to C4. The third phrase (bars 13 to 16) contrasts, sung over a sharpened and natural 7th in the minor key in a downward sequence: From chord VII and VI over a pedal fifth on C, to chords VI and V with a pedal fifth on B natural (which introduces a dissonant F sharp - a dominant major 7th chord leading back to chord 1).

In the second section, Williamson introduces an eight bar theme each for the Train, the Passengers, and the Drivers and Stokers, repeating each until all three are sung together over what is nearly the same progression (see Figure 3.6) as the third phrase of the Wolves theme but now in C major (the parallel key). The melodic lines fall in sequence in the same way the accompaniment does, with the exception of the Drivers and Stokers, whose melody is not doubled, has one leap which does not conform to Pitch

Reversal expectancy, and whose harmony is subtly varied. The Passengers melody has a higher Pitch Proximity than the other two. Williamson's technique of writing different melodies to the same progression was used in *The Knights In Shining Armour*.



Figure 3.6. The simple harmonic progression in the second section of *The Snow Wolf*.

The Wolves' recitative at bar 61 follows a recap of their opening material. As mentioned, the term *recitative* is used loosely, but more interesting is the harmony chosen to accompany the material. The key signature changes, no accidentals suggesting that the E minor chord in bar 61 is chord iii in C major or even chord v in A minor, but in fact the chords chosen for the recitative have no tonal centre, being instead selected by relation. Each chord is minor, and related to the last one by a third: up a major third, then down a minor third (sometimes enharmonically: the sequence is Em - G#m - Fm - Am). This pattern is broken at the cadence, moving chromatically from Dm to D#m, and then pivoting on G7 as dominant back to C major tonality in the next section. This supports a chromatic rising vocal line with very low pitch proximity, making up for its unusual harmonic accompaniment.

The harmonic progression by relation of an interval is a device (as will be seen) that Williamson uses in several cassations, and this is the first example of it. In some cassations he uses an intervallic relation not between chords but between key centres. Kendall-Smith pointed to minor seconds and fourths (of any quality) as Williamson's favoured intervals (Kendall-Smith 1994, p. 102), but it is relations of a third (also of any quality) that appear in several cassations.

After a repetition of the traveller's themes (bars 71 to 78), a second section of "recitative" begins, this time for the Drivers and Stokers, made up of mostly repeating pitches which very slowly fall from B to G chromatically. Again the harmony follows a similar pattern to the first recitative section, made up of minor triads related by thirds. The pattern is inverted, with chords moving down a major third then up a minor third,

and it is also further obscured by relating the Em and Bm chords by bass note (the E minor chord in first inversion), as shown in Figure 3.7.

Triad: G#m    Em/G    Bm    F#m    Am/E    Fm    G<sup>7</sup>

Movement:    ↓ M3    ↑ m3    ↓ M3    ↑ m3    ↓ M3

(bottom note, not root of chord)    (enharmonically)

Figure 3.7. Harmonic analysis of bars 79 to 97.

The next two sections feature the Passengers' second melody, firstly together with the Wolves' Theme and a new piano figuration of (essentially) the same harmony as the opening iterations, and then alone after an abrupt modulation to E minor - again the pitch relation of a third. In this repeat the melody is reharmonised, moving from chord i to a third inversion of ii<sup>7</sup>, back to i and then a vii<sup>9</sup> chord acting as a dominant substitute. In the second phrase this is replaced by a full perfect cadence, giving i - ii<sup>7</sup>d - i - V<sup>7</sup> - i.

A short instrumental passage serves to give time for children acting the Passengers to make their escape from the train, and then they begin their third melody (bar 126). This melody ties together the drama in the remainder of the work (in addition to repetitions of other themes), being repeated in different keys, and accompanied or doubled by the other parts. The harmony that accompanies this melody recalls devices used in earlier material; simple tonic-dominant harmony (over a tonic pedal in this case), and the harmony in bars 134 to 137 could be heard as using new, more unusual chords iii and VII, but in actual fact Williamson is again using the relationship of a third, creating a passing modulation up a minor third just for those four bars and then abruptly back to C# minor.

The melody falls from C5, with larger perfect fourth jumps as the end of each phrase, and then jumps back up to the start of the next phrase, resulting in a relatively high pitch proximity. It has a wide range, from C#4 to E5. Most of the jumps do conform to pitch reversal principals, except for the jump at the start of the second phrase (see Figure 3.8),

which at least returns to the tonic (the higher values allocated by Schellenberg to the repeated falling perfect fourths reflect Narmour's original identification of the high expectancy of what he termed *symmetric registral return* (Narmour 1992)).



Figure 3.8. Pitch Reversal analysis of the third Passengers melody.

Three sections of repeated material follow, with the above melody first repeated a semitone higher in D minor, then a modulation to the parallel major key D major for a repetition of the Train theme, and finally back to D minor for a repetition of the Wolves theme but with new words. Parallel modulations are also a feature of this work, and Philpott identifies the same device at work in *The Glitter Gang* (Philpott 2010, p. 248).

The third and final “recitative” section is for the Passengers, as they deliberate if they will play with the Wolves, and is very short. The vocal pitch material simply falls a semitone from the A that the Wolves’ theme ended on to G sharp. The underpinning harmony is a half diminished chord on D sharp, which moves to a G sharp major chord, the dominant of C sharp minor, which is established again in the next section. The work then ends by combining the third Passengers melody with the Train “Chuffs” repeated on the tonic. This time the Wolves also sing the melody, and the words are altered slightly as they play together. With further chromatic movement between sections, the melody is repeated in C minor, and then again in D minor. Williamson may have been tempted to continue this chromatic movement downward back to C minor, the home key, but there is dramatic relief in the fact that the wolves *do* want to play with (rather than eat) the passengers, and so upward movement feels more uplifting.

There is a clear progression and refinement in compositional approach, extension and style over these first three cassations. Vocal melodies are generally diatonic and simple in pitch shape (and always simple in rhythm), but Williamson feels confident to extend the accompanying harmony, moving away from the simple progressions which still often characterise opening statements of themes or refrains. In *The Snow Wolf*, Williamson also extended the range and duration of some parts against others, and made them increasingly challenging by adding much more new material and, at times, not providing melodic doubling in the accompaniment. But none of these changes were as great as in his next cassation, composed three years later.

### **Genesis**

After the failure of Williamson's opera *Lucky Peter's Journey* in 1969, Williamson did not write another full scale, professional opera again. *Genesis* (Williamson 1971a) was his first operatic work after that failure, being composed for the Children's Choir Camp in the Diocese of Western North Carolina, and is more compositionally daring than any cassation before, and arguably than any after. A more detailed score than the first three cassations (and many of those to come), this cassation is "for Voices and Instruments" and these include three singing parts and three playing parts, although the first instrumental group ("Melodic instruments") is optional. The high and low percussion sounds can be made by body percussion, meaning that the actual forces required are not more than the prior works, although at the premiere Williamson encouraged the young performers to bring saucepan lids.

The three singing groups are God, and two halves of the World. If there are enough performers, Williamson instructs the God-part to form a circle facing in, with the two halves of the world on the inside looking out. In addition, movements are to be made by the world to act out the creation, and in the score sounds are suggested for the world during opening sections of the six verses which represent the six days of creation.

Despite the challenges it poses, *Genesis* was performed many times over the coming years, especially in Australia in 1973 where it became the first cassation that Williamson tried out with mentally handicapped children at the Koomarri School in Canberra. This experience encouraged him to try this and other cassations with special

needs children around the world. In Meredith and Harris' biography of Williamson's life they describe a performance of it in an open field in the Zambian village of Chipapa, and in Tanzania in the language of Swahili (Harris & Meredith 2007, location 5828). It is probably the cassation that Maria Prerauer objected to so strongly in her 1975 BBC interview with Williamson ("I walked out because I wouldn't bow down to God Malcolm Williamson" (Barber 1976)), and which Williamson can be seen directing on The Mike Walsh Show on commercial television on that same trip to Australia.

This cassation is much more harmonically complex than the preceding three. While those cassations included frequent unexpected modulations, chord progressions that were related by intervals rather than harmonic function and chromaticism, *Genesis* also includes frequent use of modal harmony (phrygian and wholetone), some use of bitonality and sections where harmonic direction and references to a tonic are rare, making the music lack harmonic teleology. The repetitions of this material (the story of each day of the creation repeats the same musical material while changing words and actions, so most of it is repeated six times) do give students more opportunity to learn it, but then even without the repeats this cassation would be of similar length to the others, so there is a lot of relatively complex material to learn.

In the final section the piece does eventually settle in D major, but at this point the melodies also have the least repetition of any point in the piece, and relatively high pitch proximity, again making the learning of the music more difficult. In this work we see Williamson at his boldest in terms of compositional devices that he tries out with musically-untrained children, yet cannot conclude that this made this cassation any less popular than others, because of its documented success with special needs students. It is possible that this success was due to a number of elements: the great repetition of the bulk of the material meaning that however difficult, students had plenty of chance to remember the melody, and the fact that Williamson himself was teaching it, with a lot of enthusiasm:

"He showed amazing courage... He was truly miraculous, a magician. There was absolute genius in the way he led this and all the subsequent sessions ... The Koomarri staff said they had never seen their charges relate socially with such

enthusiasm. Somehow he knew instinctively how to unlock these children’s great disabilities with the rhythms of his music.”

Ken Healy, quoted in *Malcolm Williamson: A Mischievous Muse* (Harris & Meredith 2007, location 6230).

Again, the published Weinberger edition has no bar numbers or rehearsal marks. For the sake of clarity, this analysis will refer to bar numbers and sections. If referring to the published score, Table 3.9 is provided to assist following the analysis.

Top of page/Tempo or entry marking	Bar number
2	4
3	10
4	18
Allegro 6/8	25
5	29
6	39
7	47
8	58
Andante 4/4	63
9 Allegro 6/8	73
10	83
Andante 4/4	92
11	93
12	114
13	122
14	130
15	138
16	146

Table 3.9. Location of bar numbers in the published score of *Genesis*.

In contrast to the complexities created in the vocal shapes and supporting harmonic language, the range of parts is narrower than preceding cassations (Table 3.10). The ranges are also nearly identical in all three parts, meaning that distinction between voice types cannot be made as it could in the *Snow Wolf*. The God part does have more material, however. The majority of the vocal material is within the frequency range children have most control and accuracy in according to standard voice profile (Böhme & Stuchlik 1995).

Part	Range (occurrences)	Median Pitch	Most common 3 pitches (occurrences)
God	C4 (9) to E5 (1)	F#4	G4 (47), D4 (38), E4 (35)
Half World I	C4 (14) to D5 (10)	G4	A4 (30), C3 (14), E4 (13)
Half World II	C4 (14) to D5 (10)	G4	A4 (30), C3 (14), E4 (13)

Table 3.10. Vocal ranges in *Genesis*.

Location	Material	Key	Modulation	Metre	Pitch Proximity
1-17	God Story A	CM/m	Chromatic	4/4	2.1
18-24	World No Time	C phrygian	C major	4/4	1.88
25-28	Introduction to “Let us be” material	CM/m	None	6/8	N/A
29-34	God Let There Be Light	C major over descending wholetone	None	6/8	1.41
35-62	World Let Us Be	CM/m	None	6/8	2.96
63-72	God Story B	C major	Passing mod. G minor	4/4	1.36
73-88	World Let Us Be (new words)	CM/m	None	6/8	2.96
89-91	God Let There be Light (new words)	C major over descending wholetone	None	6/8	1.41
92	God Story A	CM/m	None	4/4	N/A
93 (Coda) - 109	God Story B (developed)	C major	D major, passing G minor	4/4	1.45
110-155	God Story C	D major	None	4/4	1.98 (1.62/3.22)
	World accomp to God Story C				2.78

Table 3.11. The structural outline of *Genesis*.



One can regard the opening harmonic material, like the “Let us be” section from bar 35 (below), a number of different ways. In its simplest sense, the piece moves between C major and C minor chords often from one beat to the next. While this harmony is simple (and not unusual for Williamson), it is the use of the major and minor third, sixth and seventh at the same time which indicates a simple bitonality, as highlighted in figure 3.9.



Figure 3.9. Boxes indicate the use of C major and C minor chords at the same time.

The piano part in the opening section is made up of two patterns, shown in Figure 3.10. The first, (bars 1 to 5 and 7), clearly based on C, but with use of both C major and minor chords, plus a strong V7 chord in C major to close; and the second pattern (bar 6) where the same major/minor device is used on the fourth scale degree (the A natural and A flat also consistent with the keys of C major and C minor):

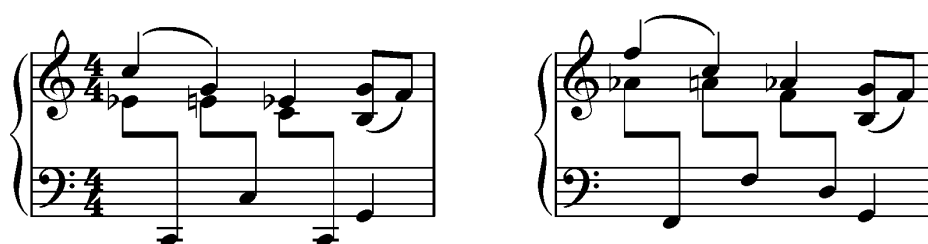


Figure 3.10. The two accompaniment patterns Williamson employs in the opening section of *Genesis*.

One could also argue that the piece is modal, with both the major and flattened third being part of the mode. This assertion is strengthened in the consistent melodic approach to each accidental: when the melody approaches the third stepwise from above, it is always flattened, **and** when approached stepwise from below it is always natural, or major, as shown in Figure 3.11.



Figure 3.11. The opening melody of *Genesis*.

The melody is mostly stepwise, and so has low pitch proximity, but in this instance the pitch proximity cannot be seen to tell the complete story of how predictable the singer may find the melody, because it does not allow for changes of tonality (or the unusual tonality, if it is read that way) throughout, nor for the lack of melodic doubling in the accompaniment (in fact, as shown in Figure 3.9, the accompaniment is at times directly dissonant to the vocal part). It is true that in his original research, Narmour did test the effectiveness of this form of analysis on modal and atonal lines (Narmour 1992), and that in all kinds of music, closer implicative intervals are more expected than wider intervals.

This does not, however, mean that a direct comparison of pitch proximity between atonal and tonal melodies can be made purely on that statistic: consistency and patterns are important in music. The changing third is difficult to sing, and a melody with wider intervals but using only the 7 pitches from a common mode may be easier to some extent.

As the work develops Williamson experiments with similar compositional devices and the introduction of modal material, beginning with an exploration of C phrygian at bar 24, and then further explorations of simple forms of bitonality beginning with the combined C major and whole tone material in bars 29 to 34 (see Figure 3.12), followed by alternating and combined C major to C minor harmony in bars 35 to 62.



Figure 3.12. The piano part at bar 29 contrasting C major chords in the right hand with a falling whole tone scale in the left.

In this section (bars 35 to 62) the accompaniment and melody move exactly opposite to one another, with the melody alternating between a bar in C major then a bar in C minor one 6/8 bar at a time, while the left hand of the piano alternates between C minor arpeggios and E minor arpeggios (which therefore fit the scale of C major). The relationship between the C minor and E minor arpeggios recalls the harmonic writing of *The Snow Wolf* of three years earlier which related chords by 3rds and chromatic movement rather than harmonic function. The repeated melodic interval of a third results in a higher (but not *very* high) pitch proximity.

The following section, from bars 63 to 72, does not include the usual support for the vocal line through doubling in the piano accompaniment, and while the harmony provided is simpler and much less challenging than the bitonal sections of the work, it is rather aimless, the left hand plotting a stepwise ambling movement with no sense of cadential direction or even movement toward a tonic. The right hand outlines C major harmony over this stagnant bass line, outlining chords I and V in bars 63 and 64, but then not resolving to clear function until the Cm7 chord in bar 67, which suggests a passing modulation when followed by the B flat in the vocal part and a suspended D minor chord (thus suggesting G minor): but instead the progression continues in another series of unresolved chords with no cadential direction.

The lack of harmonic direction means that the section is held together by melody instead of harmony, the melodic material being based on the phrase established in its first bar, shown in Figure 3.13.



Figure 3.13. The opening melodic figure at the *Andante*.

This melodic shape is then repeated from E, and then every second bar in a sequence moving upward. This contrasts well with the bass line from bar 70 which falls in contrary motion. Because the melody is mostly stepwise it has low pitch proximity again.

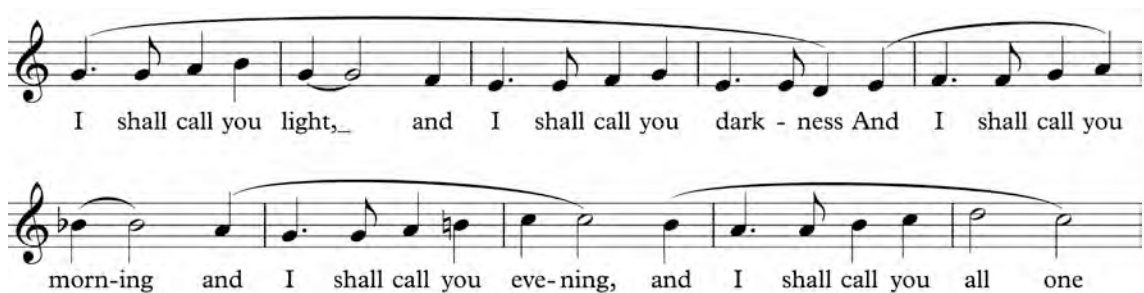


Figure 3.14. The melody from bars 63 to 72, based on the initial melodic figure shown in Figure 3.13.

The section does not cadence: the vocal part does end on C, but no clear chord is given in the accompaniment, and instead the music transitions bluntly to a recap of the “Let Us Be” material, this time with the words “Praise be to God!”. Similar repetition is applied for the remainder of the work, and this in itself is repeated six times, until the Coda is eventually reached.

In the Coda, Bars 93 to 97 are a repetition of the original “God Story B” material, but with different words. The material is then extended, introducing chromatic passing notes (e.g. the C sharp in the left hand of the piano at bar 99) and modulations between C and D major which are never allowed to formally cadence but do pass through the tonic chords (often with added notes). This allows the section to feel a little more settled than the original, plus the modulations add a feel of harmonic direction even when one is lacking. The melodic sequence every second bar described above in the original section is allowed to extend to bar 103 where it begins on B, and is modified to fit diatonically with the suggested (though never clearly established) key. An additional melodic passage is added to conclude a permanent modulation to D major at bar 110, at which point the meandering stepwise bass line is also given direction.

In the final section (bars 110 to 155), Williamson releases the tension created in the prior sections through the use of bitonality, chromaticism, and unclear harmonic direction with unresolved added chords by firmly establishing D major and allowing a grand catharsis with primary triad-based harmony. This is the celebration of the creation. Williamson establishes a repeated chord pattern here which he varies, moves away from, and returns to until bar 140. The implied pattern is I - IV7 - V substitute - vi7, where chord V is substituted sometimes by chord I in second inversion and sometimes by chord iii as shown in Figure 3.15.



Figure 3.15. Harmonic analysis of the repeated and varied progression in the final section.

Variations continue throughout, with complete changes to the pattern at 118-119, where chromatic movement suggests G major without establishment before returning strongly with a V7 chord in D major to chord I for another variation of the above pattern again at 120. Variation of the pattern in bars 122 to 125 is nearly complete enough to suggest another new pattern, but the outline remains, especially with the clear use of chord IV on the third beat of the first bar. After a repetition of this material, Williamson further simplifies the accompanying harmony at bar 140 (see figure 3.16.), and this pattern is repeated, unvaried, until the end.



Figure 3.16. At bar 140 the progression is further simplified and then repeated exactly for the remainder of the work.

The melodies in this section are reminiscent of earlier melodies, but not direct developments or recapitulations of them. The feature of the original “Praise be to God” and “Let Us Be” melody is movement between tonic and dominant degrees of the scale,

but in the instance from bar 126 the melody is allowed to follow the contour of the harmony, thus becoming more melodic and less declamatory. This pattern is changed regularly from bar 133 to two or four-bar patterns which are repeated. The final pattern, “Wherefore we rest” with alternate rising and falling fifths again being reminiscent of the “Let there be light” melody. In this final pattern, phrases in the world parts alternate in question and answer between them and the God part (described below).

As would be expected with arpeggiated material, the pitch proximity is relatively high, and coupled with the ever-changing pitch patterns and text variation there is still a lot of new material to learn in this final section despite the relative harmonic simplicity that could make that learning easier than the prior sections. Almost all leaps do conform to pitch reversal expectations, which would also make the material easier to perform. Naturally, the arpeggiated material (3.22) has a much higher pitch proximity than the earlier material (1.62), which is mostly stepwise, so these can be regarded separately or together (1.98).

### **The Stone Wall**

*The Stone Wall* (1971b) was arguably Williamson’s most well-known cassation. It was a commission for the Last Night of the Proms, and was repeated at the Sydney Proms the very next year. At its premiere it was performed by the audience with the BBC Symphony Orchestra under Colin Davis - they were first rehearsed with Williamson at the piano, and then in the performance Richard Baker and Williamson conducted the “English” and the “Scots” respectively (Harris and Meredith 2007, location 5597). The 7,300 strong audience for the concert were invited to a separate rehearsal the week before, but only 300 turned up; so the rehearsal as well as the performance was broadcast live via television and radio to all those watching (The Times, 1971).

The format of this performance, with full orchestration at the Royal Albert Hall, was very different to the published score directions of most cassations (including *The Stone Wall*) which instructed that it should be in “schoolrooms, open air, or anywhere informal”. Despite this, the compositional approach very much fit the mould of the previous four. In fact, analysis reveals it to be harmonically much less adventurous than

*Genesis*, despite a dissonant opening, and again it exemplifies the now-typical formula of three vocal parts, and a simple structure.

Composed in a hurry as the deadline for the commission due near, Williamson was inspired by a trip to a festival in Cumbria, near Hadrian's Wall. The story is a drawn out joke: the English and the Scottish are fighting, and decide to build a wall to divide them; once the wall is built they are invaded by Vikings, and defend themselves by throwing the stones from the wall, thus dismantling it. The English and Scots then realise they have worked together and declare peace instead of war.

Pitch Proximity analysis across the entire work reveals that while there are passages where vocal pitch-lines are not at all proximate (for example the "Savages!"-based material, which is made up mostly of perfect fifths), these are always made up of short repeated phrases. When the two pitches do change, they are transposed exactly, usually through a series of chromatic modulations which are doubled in the accompaniment, and so not a lot of new material is actually required to be learned. The Viking theme shows high pitch proximity values, but is built over note of the prevailing harmony and so well supported, while all other material meets expectancy in terms of both Pitch Proximity and Pitch Reversal analysis.

The detail and challenge is therefore not in these individual lines but in the sophisticated way Williamson constructs the work, especially harmonically. While he does not use *Genesis*' bitonality, the work is extremely dissonant in sections where he moves a chordal motif made from an augmented fourth and major seventh above its root in parallel, chromatic motion, as discussed in detail below. These intervals underpin the accompaniment throughout - even when the Viking Theme is made up of simple arpeggiations of minor chords, Williamson adds in the augmented fourth to the chord to add dissonance, or finds inventive ways to move from one key to the next such as putting the chord in second inversion, then dropping the bass line to the augmented fourth over the tonic as a chromatic passing note to the next chord.

When not exploring intervallic-based material Williamson explores other tonalities and frequent modulations, often chromatic. These tonalities include major and minor keys, phrygian and lydian modes and another mode with no second, a flattened third and both

perfect and sharpened fourth which is very similar to a simple “blues” scale (and is labelled so below for want of a better term).

It could be argued, as has been concluded in other cassations, that Williamson is moving through a series of chords outside any one pervading tonality, especially in the sections that are marked in Table 3.13 as modulating frequently. While this would be a fair view to take, in this instance the highly chromatic nature of the music means that individual cells can be recognised as having a centre, where one can be identified, even if only for the length of a phrase. When these phrases are then transposed up or down exactly, they can be considered exact repetitions but with other tonal centres: in other words, modulations. Some sections move through four or more centres before moving to the next section.

There is also an overarching progressional (not formal) shape to the sectional modulations, something not seen in earlier cassations. After beginning over an uncertain E tonic (the melody matches E phrygian, while the accompaniment is more chromatic), the first statement of the “Divided” melody is in C (“blues”) and sections after that gradually move their tonal centre a semitone higher, until reaching E again (via a short move to G minor) to end the work in E major.

Rhythmically the work is simple, with no use of syncopation. It is also the only cassation that does not change metre from start to end, which contradicts Williamson’s own assertion in his note to teachers and producers.

It has been suggested (Harris & Meredith 2007, location 6053) that because of the rush it was written in, so close to deadline, that Williamson forgot to include the Romans, who of course built Hadrian’s Wall between England and Scotland. In fact, this work belongs to another era and, of course, does not attempt to be historically accurate. In contrast, the music is some of the most thoughtful, carefully planned and sophisticated of all of the cassations, and it may be that Williamson just worked best under pressure.

As with some other cassations, the published edition does not include bar numbers, but for the sake of accuracy this analysis does. Table 3.12 aligns bar numbers to the provided rehearsal marks.



Rehearsal mark	Bar number
A	6
B	14
C	23
D	35
E	49
F	58
G	66
H	72
J	85
K	93
L	103
M	108
N	119
P	129
Q	139
R	149

Table 3.12. Bar numbers in relation to rehearsal marks in *The Stone Wall*.

Location	Material	Key	Modulation	Metre	Pitch Proximity
1-17	Savages! Theme	E-based phrygian & highly chromatic	Highly chromatic; motivic based harmony	4/4	4.05
18-27	“Divided” Melody	C “blues”	B then C then C# “blues”	4/4	1.82
	Savages! Ostinato				4.56
28-35	“Divided” Melody	C# “blues”	C then C# then D “blues”	4/4	1.82
	“Stone on Stone” Ostinato				6.33
36-49	Viking Theme	D minor	E flat lydian	4/4	3.27
	“Stone on Stone” Ostinato				6.33
50-57	“Divided” Melody	D “blues”	C# then D then D# “blues”	4/4	1.82
58-71	Viking Theme	D# minor	E lydian	4/4	3.27
	“Stone on Stone” Ostinato				6.33
72-85	“Not a Stone” Melody	E major	None	4/4	2.63

Location	Material	Key	Modulation	Metre	Pitch Proximity
86-93	Viking Theme	E minor	F lydian	4/4	3.27
	Savages! Ostinato				5.44/5.55
94-108	The Battle	Highly chromatic	-	4/4	N/A
108-136	Vikings Retreat, inc. quotes of “Divided” accomp & Viking Theme.	G minor	Dm, Cm, Em, D major, D#m	4/4	1.37
137-162	“Not a Stone” Melody	E major	None	4/4	2.63

Table 3.13. Structural outline of *The Stone Wall*.

The vocal range of each part is outlined in table 3.14, and shows that the tessitura of the three parts is not wide and nearly identical. Having one part with a higher range than the others may allow a teacher to identify students with higher ranges and therefore place them on the parts they suit, but in a concert hall the audience cannot be arranged by voice, so it is likely that Williamson deliberately chose a middle range that would not stretch the alto or bass voices too high. Not only is the higher limit lower than many other cassations in this work, but the great majority of pitches sit within D4 and A4, the same range Carl Orff chose to begin his Orff Schulwerk series (Orff & Keetman 1952) of publications for small children.

Part	Range (occurrences)	Median Pitch	Most common 3 pitches (occurrences)
English	B3 (1) to C#5 (2)	F4	E4 (44), D4 (32), D#4 (31)
Scots	B3 (8) to C#5 (2)	F4	E4 (32), A4 (32), D4 (28)
Vikings	A3 (4) to D5 (3)	F4	E4 (16), G4 (15), A4 (14)

Table 3.14. Vocal ranges of parts in *The Stone Wall*.

So much detail can be found in this short cassation that it is more difficult to select passages to focus on in this chapter than in the earlier cassations. It is vital, however, to begin with the introduction because it foreshadows the two main musical elements or compositional techniques used in the first section. These are the falling perfect fifths (presented in the left hand of the piano, to which the singers will sing “Savages!” at

letter A), and an accompaniment built on a chordal motivic pattern which is an augmented fourth (tritone) on top of a perfect fourth, creating a highly dissonant chord (not only is the tritone dissonant, but the combination of the two intervals creates a major seventh between the outer notes). This chord is then transposed to different chromatic positions (see Figure 3.17), giving the impression that this might be some of Williamson's more atonal or serially-derived music.



Figure 3.17. The opening chords in the right hand of the piano part in *The Stone Wall*.

In actual fact, while the accompaniment remains dissonant, the opening is not atonal. The left hand falling fifth arrives on E, the lowest and most predominant pitch in the five-bar introduction, and this is also the fifth that the English will sing when they enter at letter A. Therefore, the pitch of E is established as a tonal centre, even if no functional harmony reinforces that: the same concept of tonal centricity that Kendall-Smith identified.

As the highly dissonant and chromatic harmony is built around a single chord, transposed to different pitches, it becomes another repeated pattern in the music rather than aleatory or serially-organised atonality. The technique of parallel harmony, or planing, was one used by Williamson in *The Moonrakers* and *Knights In Shining Armour*. However in those compositions he did it with major and minor triadic harmony: here he does it with the dissonant chords.

Once the vocalists enter, the chords become simple punctuation against what they are singing, the top note of the chord matching the vocal line as pitch support. E is still heard as the tonic, and the B to E movement in the left hand feels cadential even without the supporting formal harmony. At bar 8 the Scots sing the same falling fifth, but a semitone higher, setting up dissonance between the two vocal parts (they sing these lines alternately in bars 10 and 11 and together in bars 12 and 13). When they sing it on their own in bar 8, the accompaniment moves up a semitone to support the vocal pitch, and then the vocal lines are doubled in the piano, harmonised in the right hand of the piano with an extra note an augmented fourth below from time to time, using a

fragment of the established harmonic motif as shown in Figure 3.18. Pitch Reversal analysis shows that some of the jumps would be difficult to predict, and coupled with the dissonance between the parts, this results in challenging music for children.

The musical score for Figure 3.18 shows the vocal opening in *The Stone Wall*. It consists of three staves. The top staff is for the English part (Eng.), the middle for the Scottish part (Sco.), and the bottom for the piano accompaniment. The English and Scottish parts have lyrics 'Sa - va - ges!'. The piano part consists of two staves (treble and bass) with a rhythmic accompaniment.

Figure 3.18. The vocal opening in *The Stone Wall*.

The following “Divided Melody” is made up of a nearly exactly repeated two-bar phrase that is transposed by a semitone on every repetition. Despite these frequent modulations, these sections reveal a change to solidly established tonality, the melody itself made up of a pentatonic pitch set (loosely labelled the “Blues” scale to reflect this popular-style melody against the dissonances in its surrounding sections, and shown in Figure 3.19). From the anacrusis to bar 20 this phrase begins on C, then B, C, and C sharp. At bar 28 it is repeated by the Scots, but this time on C sharp, C natural, C sharp and finally D: the same eight-bar melody and series of chromatic shifts but beginning a semitone higher. Contrast is created between the chromaticism and resulting dissonance and the essential diatonic shape of individual elements. Part singing is used in some sections of this cassation, but the second part in each case sings a simple ostinato.

The musical notation for Figure 3.19 shows the pentatonic “Blues” scale used in *The Stone Wall*. The scale is written on a single staff in treble clef, starting on C and ending on C sharp. The notes are C, B flat, A, G, F, and E sharp.

Figure 3.19. The pentatonic “Blues” scale used in *The Stone Wall* (the B flat does not sound, but completes what is often referred to as the blues scale, reflecting the contrasting material).

The next section introduces the Viking theme, together with another accompanying ostinato (“Stone on Stone”). The Viking theme is built around arpeggiations of the D minor triad, and to represent the distance from which they are approaching is rhythmically augmented in its first presentation (it is performed with halved rhythmic values in its next appearance). In the accompaniment, the piano plays dissonant G sharps which are not in the key of D minor, while doubling the Viking theme (two octaves lower) in the left hand (see Figure 3.20.). The idea of the augmented fourth over the tonic is extended from the opening chordal motif and also from the mode employed in the Divided melody. The G sharps do not feature in the theme.



Figure 3.20. Piano accompaniment at bar 36 of *The Stone Wall*.

Further modulations occur, introducing a pitch set consistent with E flat lydian mode before returning to D major, and in the subsequent sections continuing the chromatic modulations established earlier.

It is only at bar 72 with the introduction of the “Not a stone” melody that Williamson allows the work to establish and remain in a single key (that of E major, although it is written in the Weinberger edition without key signature) for an entire section. In combination with relatively simple harmony (see Figure 3.21) and much use of seventh chords, Williamson releases the tension built up in the preceding sections.

Figure 3.21 shows a musical score for piano accompaniment. It consists of three systems of staves, each with a treble and bass clef. The first system (bars 72-76) is marked with a box 'H' and shows chords: I<sup>6</sup>, iii (sub. I<sup>7</sup>), IV, vi, and ii<sup>7</sup>. The second system (bars 77-81) shows chords: ii<sup>4</sup>, vii<sup>6</sup>, V<sub>2</sub>, III<sup>7</sup>, and I<sup>6</sup>. The third system (bars 82-86) is marked with a box 'J' and shows chords: IV, ii, V<sup>7</sup>, I<sup>6</sup> (implied inversion), and ii<sup>7</sup>. The score ends with a 'Next section' marking and a fortissimo (ff) dynamic.

Figure 3.21. Harmony accompanying the “Not a stone” melody.

After antiphonal developments of the “Savages!” ostinato, the battle is represented by the use of the piano introduction from the start of the work. The left hand of the piano plays accented falling fifths, the “Savages!” material. In between these iterations the parts shout battle instructions to each other, and while they do this, the accompaniment glissandos up and down in its own time. When the Vikings retreat, each phrase begins with a number of repeated notes from the prevailing harmony, ending with a chromatic step down and then a jump up or down by a diminished fifth (the tritone established in the opening harmony).

The vocal passage ends with a terrible pun in bars 124-126 (“Who’d want to rule Britannia?” - the Sargent arrangement of Arne’s *Rule Britannia* of course being one of the favourite works performed each year at the Last Night of the Proms) as the line rises to cadence in D major (again, with an added augmented fourth above the tonic of the chord). At bar 112 it modulates to D minor, with the expected chromaticism of the augmented fourth (which is also doubled in the left hand in bar 114 enharmonically as A flat), then at bar 115 to C minor. Therefore each four bar phrase begins in a new key

with the tonic chord voiced in second inversion, the fifth of the triad in the bass then falling by a semitone to add the augmented fourth to the harmony in the third and fourth bar. There is one more modulation to E minor at bar 120 before the final chromatic progression to cadence in D major with the word “Britannia”, as mentioned above. This is summarised in Figure 3.22.

Figure 3.22 shows a musical score with three systems of staves. The first system, starting at bar 108, is marked with a box containing 'M'. It begins in G minor (indicated by one flat) and modulates to D minor (indicated by two flats) by bar 113. The second system, starting at bar 114, continues in D minor and modulates to C minor (indicated by three flats) by bar 119, marked with a box containing 'N'. The third system, starting at bar 120, begins in E minor (indicated by three flats) and modulates to D major with an augmented fourth (indicated by two sharps and a natural sign for the fourth degree) by bar 125. The score includes piano (p) and forte (f) dynamics, and a 'subito' marking at bar 121.

Figure 3.22. The series of modulations in the Vikings retreat.

The work then ends with an exact repetition in the same original key of the “Not a Stone” melodic material, over a subtly changed piano accompaniment - the first 6 bars move over an E pedal, and while the essential chord sequence is the same, extra notes including more augmented fourths are added to chords, sometimes suggesting different chords entirely. In the repeated final phrases, Williamson uses a number of uplifting chromatic passing modulations (bar 151 C sharp minor over C natural, bar 155 C major) to extend and suspend the existing harmony right to the end.

## **The Winter Star**

Williamson did not write a cassation in 1972, but he did compose his children's opera *The Red Sea* which has been described as “an extended cassation, abandoning most of the traditional operatic conventions” (Harris & Meredith 2007, location 5707) and was discussed in Chapter 1. Like *The Red Sea*, which was a commission from the Devon Education Authority, *The Winter Star* (1973) was a commissioned work - in this case, for the Holme Cultram Festival. The work tells the story of the nativity from the point of view of those who travel to the manger in Bethlehem, adding the roles of the guiding Star itself and Children being (unsuccessfully) put to bed by Adults to the more traditional Angels, Shepherds and Animals and (The Courts of the) Kings. This means that there are many more parts than the usual three or four seen in all the preceding cassations.

The compositional processes in *The Winter Star* are generally more formal than the preceding few cassations which had featured contemporary approaches to harmony such as bitonality, non-functional progressions and some extremely chromatic writing. Detailed harmonic analysis (some of which is included below) shows the harmony used is almost always in fixed keys but with frequent modulations and much passing chromaticism. Most melodies are doubled by the accompaniment and made up entirely of notes from the harmony (which despite supporting them well also lends to less helpful pitch proximity).

The exception to these observations of Williamson's approach to harmony and melody in *The Winter Star* is the introductory material which repeats throughout the overall structure and is based on chords rising by thirds (a technique Williamson also used in *The Snow Wolf*, *The Moonrakers* and *Genesis*) and is strangely set against material which does not follow this progression.

While Williamson's use of functional harmony is involved and extended, his rhythmic writing is simple, using very little syncopation. The Kings Melody is the first use of an uneven metre (it is in 5/4) in any of the cassations, but is made up of very simple rhythms. More strikingly different in this cassation is its use of no fewer than six vocal parts. Three was the number usually used, and one can assume that Williamson felt he



could extend this number safely because the work was a commission for a festival performance and would therefore receive a little more preparation than the “one hour to rehearse” that Williamson suggested in his note to teachers and producers of all of the cassations.

As discussed, the material is no more complex than any previous cassation - in fact, *The Winter Star* is eminently more approachable than *Genesis* or *The Stone Wall* - but the six parts required much more material to be composed to give each group their own part, as Williamson did in each cassation. The structure supports this (see Table 3.15): an opening section in which the Adults, Children and the Star each sing a different melody to the same accompaniment, and then sing them together; then melodic sections for the other three parts (Angels, Shepherds and Animals), each broken up with a reprise of the first three’s combined material. By the time this has been worked through, two tutti sections and a little transition material complete the work. Unlike most of Williamson’s cassations, there is very little development of themes or repetition that is not exact, and only the opening combined material is repeated at all, by means of two Da Capo markings.

Williamson recalls the melodic and percussive instrument parts that he included in *Genesis*. The percussion parts are extremely simple, and do not feature much in the detailed analysis. In contrast, the melodic part often works independently of the keyboard accompaniment and vocal melodies, and in keys with many sharps or flats. While Britten had composed for beginner and accomplished instrumentalists in *Noyes Fludde* (Britten 1958), Williamson does not seem to have as clear an idea in *The Winter Star*, writing both simple and complex material in the same melodic instrument part. This material certainly could not be performed on classroom pitched percussion instruments such as xylophones, or other classroom instruments such as recorders, because of the number of accidentals. Xylophones manufactured for classroom use over the last century are typically in C major and are provided with two accidental replacement bars of F sharp and B flat. Their range is one octave and a major sixth. Recorder fingering outside one or two sharps or flats becomes quite complex and certainly would not be practiced in a class context). Even students learning privately at

primary school age would most likely have a problem playing in the G flat major key Williamson uses.

Because of the lack of development throughout the work, the musical connection from section to section is in Williamson's harmonic language. As mentioned, and as will be seen in detail below, most sections involved clearly established keys and tonal centres, but modulate freely (and often to remote keys), using chromaticism and added notes to blur the progressions. All do retain a strong sense of harmonic direction despite this, in contrast to some sections of the earlier cassations.

The range of all vocal parts is nearly identical (see Table 3.16), meaning that directors/teachers would not be able to group children according to vocal range, but pitch proximity analysis clearly shows that the opening Adult, Star and Children's melodies match performers expectancy much more than the following three parts. In addition, the supporting harmony is less complex than the Shepherds and Kings melodies, which pass through five keys each. And, of those three opening parts, pitch proximity analysis suggests there is a progression of melodic difficulty from the Star to the Children and then the Adult parts.

In the final two tutti sections Williamson ensures the material is easily learned in two ways: in the march, all six parts sing in unison while Williamson continues exploring many more remote keys and swift modulations (sometimes three keys in one phrase). In the final "Glory be to God" each part sings separately, but in canon, so that only one melody need be learned together. The canon is unusual in that entries are not regular, working in pairs, the first after 2 bars and the second after 8, then 10 and 16, and so on.

Location	Material	Key	Modulation	Metre	Pitch Proximity
1-8	Introduction	C major	None	3/4	N/A
9-25	Adult Melody 1	C major	D minor, F major, G major	3/4	2.6
	Star Melody 1				1.52
	Children's Melody 1				2
26-31	Transition	C major	None, chromaticism	3/4	3.6

Location	Material	Key	Modulation	Metre	Pitch Proximity
32-51	Angel's melody	G major	D major, A minor, G major	3/4	3.38
52-75	Shepherd/Animals Melody	D major	B dorian, D major, B dorian, A major, D major	2/4	2.59
76-101	Kings Melody	B major	G# minor, G# major, F minor, E flat major, B major	5/4	2.7
102-113	Children's Melody 2	B flat major	B flat mixolydian	4/4	0
	Adult Melody 2				0.67
114-130 (1)	Tutti Marziale	E flat major	F major, Bb major, Gb major, Bb major, Eb major	4/4	1.74
131-182	Tutti in canon Glory to God	C major	None	3/4	1.96

Table 3.15. Structural summary of *The Winter Star*.

Part	Range (occurrences)	Median Pitch	Most common 3 pitches (occurrences)
Adults	B3 (3) to Eb5 (1)	G4	G4 (45), Bb4 (34), F4 (27)
The Star	B3 (4) to Eb5 (1)	G4	G4 (39), C5 (25), F4 (24)
Children	B3 (2) to F5 (3)	G4	C5 (36), G4 (34), Bb4 (23)
Angels	B3 (2) to Eb5 (1)	G4	G4 (46), E4 (23), A4 (22)
Shepherds & Animals	B3 (2) to Eb5 (1)	G4	A4 (44), F#4 (27), E4 (26)
The Courts of the Kings	B3 (6) to Eb5 (3)	G4	F4 (30), G#4 (28), G4 (27)

Table 3.16. Vocal ranges in *The Winter Star*.

The published Weinberger Score uses rehearsal marks. In the following more detailed analysis of some sections of *The Winter Star*, bar numbers are referred to. Table 3.17 shows corresponding bar numbers to the rehearsal marks. As a side-note, there are several mistakes in the published score, though most of what is written is clear.

Mistakes include the lack of a second dot (double dotted rhythm) in the melody from figure 9, and a start repeat mark also at figure 9 (it is unclear at first where Williamson intended the repeat before figure 10 to go to, but this is the most logical place).

Rehearsal mark	Bar number
1	9
2	26
3	36
4	52
5	66
6	76
7	86
8	102
9	114
10	131

Table 3.17. The relation of rehearsal marks to bar numbers used in the detailed analysis.

As mentioned, the opening section (which repeats throughout the work) uses relations of a 3rd and strange, simplistic and non functional harmony. It is described in greater detail in Chapter 5, where this approach to writing is compared across the cassations.

The second section is repeated four times on its first appearance. The first three times, each of the parts (Adults, the Star and Children) sing their own melody, and on the fourth time all three parts are sung together. Similarly, after each of the two Da Capo markings (bars 51 and 75) it is repeated once with all three parts singing together. As such, it becomes a refrain throughout the work. The harmony provided contrasts greatly with the material in the opening and is summarised in Figure 3.23. It begins in C major, and moves through a number of modulations and a chromatic passage before finally cadencing back in C major. The phrases are regular four bar phrases, each ending with a perfect cadence - the middle two phrases cadencing in F major and G major.

9

C major: I vii<sup>9</sup> (V<sup>7</sup>) I III ii<sup>7</sup> V<sup>7</sup> I I<sup>7</sup> vii<sup>9</sup> (sub.V<sup>7</sup>) D minor: vii<sup>7</sup> I V<sup>7</sup> Pivot IV<sup>7</sup> (ii<sup>7</sup> in F) F major: V<sup>7</sup> I

17

vii<sup>9</sup> \* \* G major: (ii) ii<sup>7</sup> V<sup>7</sup> I ii<sup>4</sup> Pivot I<sup>7</sup> (V<sup>7</sup> in C) C major: IV<sup>2</sup> V<sup>7</sup> I 6—5 4—3

Figure 3.23. Harmonic analysis of the second section of *The Winter Star*.

When writing in a clearly defined key, Williamson still extends the harmony used by employing substitute chords (for example, the vii<sup>9</sup> chord in bar 9 or the vii<sup>7</sup> chord in bar 13, both which substitute V<sup>7</sup>). The piece passes through D minor in bars 13 to 15, although the perfect cadence is blurred by the use of the substitute chord. The IV<sup>7</sup> at bar 15 acts as a pivot chord to cadence properly D minor's relative major (F major) in bar 16, although again the key centre is not allowed to settle for long.

Bars 17 and 18 transition chromatically (marked \* in Figure 3.23) upward to G major, which also clearly cadences, before pivoting on a G major 7 chord back to C major. In the passage in which the final modulation happens, bars 21 to 22, Williamson writes a falling figure in between chord changes that sounds like suspension resolutions, but in fact is an inner voice anticipating a note of the next chord or moving to an auxiliary note. At bar 23, in the final perfect cadence, Williamson then uses two unprepared suspensions to sustain the dominant chord for a bar.

Notes in the melody instrument in this section are almost entirely from the pervading harmony, and the same can be said for the three sung melodies. It is notable that because the three different melodies are sung to the same accompaniment that they cannot be supported by the piano accompaniment.

After a transition section, the Angel's melody is repeated three times. Musically this section is similar to the last one, with chordal material in the piano usually providing harmonic direction within which the melodic part closely fits. Again, modulations and moments of passing chromaticism add to the harmonic interest, as do substitute chords, especially in cadential figures. Three of the four even phrases close with definite perfect cadences, but the third phrase does not establish any fixed key or tonal centre until suddenly cadencing in A minor (see Figure 3.24).

36 First phrase Second phrase

G major: I vi iii<sup>6</sup> ii<sup>4</sup> I vi vii (V) D major: I V<sub>3</sub> vi ii

42 Third phrase

I<sup>4</sup> IV<sub>3</sub> V I IV No fixed key or tonal centre Cadence in A minor: C Dm<sup>7</sup> Am D Bm(maj<sup>7</sup>)/D A/E Bm/F# V

47 Fourth phrase

I<sup>4</sup> vi Quasi-pivot G major: ii<sup>6</sup> V vi I<sup>6</sup> ii<sup>6</sup> V I (iii<sup>6</sup> in G major)

Figure 3.24. Harmonic analysis of bars 36 to 51.

In contrast, the Shepherds and Animals have the simplest material presented yet (bars 52 to 75). Coming after another repetition of the Introduction and Adult, Star and Children's first melodies, there is an abrupt modulation to D major (from C major) as well as the first metric change, to 2/4. The rhythmic pattern shown in Figure 3.25 is explored as each phrase again corresponds to a modulation. For example the second phrase (from bar 58 to 61) shifts cleverly not to A major, as the added G sharp may suggest, but instead to B Dorian (Williamson is moving to the relative minor, but

instead of using the minor mode, he uses dorian which happens to use the same accidental set as the dominant of D). Again, harmony is dominated by quick changes between chords i and V, as well as chord IV. The third section, from bar 62 to bar 65, returns to the opening D major material.

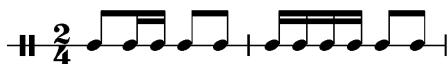


Figure 3.25. The rhythmic pattern on which the Shepherds and Animals material is based.

As in the last sections, the melody usually conforms to using notes of the prevailing harmony, with little use of passing or auxiliary notes. Unlike the last two themes, Williamson doubles this one in the accompaniment throughout, sometimes with the top note of the rapidly changing chords, or as at figure 5 (fourth phrase), the melody dominates the right hand of the keyboard part.

The Courts of the Kings melody (bars 76 to 101) is similarly set against ever-modulating tonics and the added challenge of 5/4 time, although the melody is doubled by the accompaniment and less arpeggiated than the preceding vocal material, which results in lower Pitch Proximity values. The analysis in Figure 3.26 shows both the melody and the accompanying piano part, with harmonic analysis reflecting the chords used in four keys beginning in G sharp minor, the relative minor of B major. Substitute chords and chords that can be heard more than one way are shown one on top of another.

86 *mp*  
We were sleep-ing with - in our pa-la-ces when there shone forth a blind-ing light;

*mp legato*  
G# minor:  $i^7$  IV $\sharp_3$  VII iii  $\sharp vi^\circ$  G# major: II $^7$  v $^7$

90  
An - gel voi-ces com - man-ded us to a - rise and fol-low it through the night

F minor:  $i$  iv $^7$   $\flat VII^7 \flat III^7$  II $^7$  v $^7$  I ii $^4$  vii $^\circ$  ii $^6$  V $^7$  I V $^7$  (Cadences to I)  
E $\flat$  major: (becomes ii in E $\flat$  maj) (v $^7$ )

Figure 3.26. Analysis of the Kings melody section.

Williamson uses the cycle of fifths progression twice in this section, but naturally gives it his own touch of harmonic colouring. Chromaticism in the first four-bar phrase in G sharp minor results in a major chord seven and a sharpened (and diminished) chord vi, as well as suggesting an overall modulation to G sharp major with the addition of B sharp in bar 88.

In the second four bar phrase, Williamson drops the material an augmented second to F minor, and then increases the harmonic rhythm of the progression not only by moving the chord changes to most beats in bar 91, but also by combining a flattened chord III $^7$  and chord vi $^7$  (so they are heard as both). Again, there is great use of chromaticism, but the two bar progression does close still in F minor before abruptly modulating to the unrelated E flat major for an extended ii-V-I cadential figure which then immediately moves to chord V $^7$  of B major to cadence back to the opening key signature of the section.



While these harmonic changes can seem bewilderingly fast and unusual for young singers, Williamson's use of the familiar progression of fifths, albeit without strict adherence to one diatonic scale, grounds the passage, and only when he stops using this device (bars 92 and 93) does the progression lack such definite harmonic direction.

The second Children and Adults melody (bars 102 to 113) can be considered an extended transition over a gradually built B flat major minor 7th chord which is retrospectively heard as a dominant to the E flat major of the Tutti Marziale.

The Tutti itself again introduces yet more new material, and again Williamson's compositional approach is to write constantly shifting harmony over which the melodic lines will fit. The harmonic analysis in Figure 3.27 describes not only the harmony and modulations used, but also where chromaticisms (often not passing notes) cannot be explained by the changing modulations. These notes are highlighted red, or pink where they occur in pivot chords and may be harmonically defined more than one way.

There is even greater use of extended chords, with nearly every chord having an added seventh, and modulations are frequent in the middle two of the four phrases in this section. The second phrase, for example, begins in F major with no transition from E flat major in the preceding phrase, but then modulates to B flat major in its final bar. The perfect cadence in B flat major is across the end of the second and start of the third phrase, where it then immediately moves into G flat major (again, not kind to the melodic instrument!) which precariously establishes itself despite frequent chromatic notes before immediately moving back to B flat major to end the third phrase. The fourth phrase, like the third, is more stable in E flat major from start to end.

114 1st phrase 2nd phrase

E♭ major: I V<sup>7</sup> I<sup>♯</sup> iv ii<sup>7</sup> V<sup>7</sup> I V<sup>7</sup> I<sup>♯</sup> vii<sup>♯</sup> ii<sup>♯</sup> V<sup>7</sup> I

F major: E<sup>♯</sup> V<sup>♯</sup> ii<sup>7</sup> V<sup>7</sup>

9 - 8  
4 - 3

120 3rd phrase

(F major): vi<sup>7</sup> ii ii<sup>7</sup> V<sup>♯</sup> (sub. I) B♭ major: ii ii<sup>7</sup> V<sup>7</sup> I E<sup>♯</sup> B♭ major: bvi<sup>♯</sup> V<sup>7</sup> I

126 4th phrase 1.2. 3.

E♭ major: V<sup>♯</sup> I<sup>♯</sup> I<sup>♯</sup> IV ii<sup>♯</sup> V<sup>7</sup> vi<sup>7</sup> ii<sup>7</sup> V<sup>7</sup> I V<sup>7</sup> V<sup>7</sup>

B♭ major: I E<sup>♯</sup>

Figure 3.27. Harmonic analysis of the Tutti Marziale

Over this, Williamson balances the frequent harmonic changes in the melody for all parts with strictly repeated rhythms. The melodic shape is also similar throughout, moving stepwise up, then down, in two bar phrases. Despite the extended harmonic language, Williamson is successful in writing another melody that satisfies pitch proximity and pitch reversal analysis as fitting with melodic expectancy. His compositional approach is clear: the complexity is in the harmony, the simplicity in the melodic line.

In stark contrast to each of the prior sections, in the finale Williamson wallows in simplicity as the accompaniment rotates over crotchet tonic, subdominant and dominant chords in 3/4. Each of the six vocal parts sing separately, but in canon, a method that many music educators use to introduce part singing. As mentioned, Williamson makes the canon work by having four bar phrases which are repeated in unison at the duration

of 2 bars, but the next pair of entries occur at the duration of 8 and 10 bars, meaning that two four bar phrases have been sung before the next pair enter in turn.

This final section is opened and closed by reusing the introduction material. From bars 131 (figure 10) to 134 there is a transition featuring repetition of the opening material but in E flat major, the key the preceding section ended in, before moving to C major as the canon begins. The end of the work is an exact repetition of the introduction, except it ends with a reiteration of the I-IV-V chords that revolved through the canon. It is as strange a way to end the work as it was to begin it, with harmonic uncertainty, not of the brilliant kind that Williamson exhibits in the central sections with unusual modulations, chord progressions, alterations and chromaticism, but an infantile harmonic mismatch that does not seem to fit the musical language nor dramatic message of the work. At best, its use is more Williamson quirkiness.

### **The Glitter Gang**

*The Glitter Gang* (1973-4) was commissioned by the ABC under John Hopkins for the Sydney Proms, where it was premiered alongside a performance of Williamson's Third Symphony. At the time Williamson was enjoying reconnecting with Australia after a long absence, and had been working in many states and with many ensembles, including using his cassations with groups of disabled children as outlined in Chapter 1. Professional Australian projects at this time included the score for Robert Helpmann's ballet *Perisynthion*, which did not eventuate because Williamson did not deliver the music in time, and the Concerto for Harp and String Orchestra (which was then actually premiered in London).

*The Glitter Gang* is the one cassation with an explicitly Australian storyline, focusing on an imaginary clash between European settlers and Aboriginal Australians. Highly moralistic, it supports the peaceful, well-intentioned Aboriginals who Williamson simply called the "Australians", thus betraying his feelings on the subject before the story is even told. In her thesis (Philpott 2010) on Williamson's Australian identity (reviewed in Chapter 1), Philpott focuses on *The Glitter Gang* as one example of Williamson's Australianism, looking in detail not only at the musical content but also the social context of writing on such a topic at the time:

While this arresting story may not have been based on actual historical accounts, elements of the story are far from fictitious. It is indisputable that the nineteenth-century Gold Rush proved to be something of a second wave of dispossession for indigenous Australians. Already forced inland by the first European settlements along the coastlines, the discovery of gold in Australia in the 1850s saw indigenous populations lose even more of their traditional land, as a significant proportion of Australia's land mass was searched and cleared of all useful resources, including gold and other minerals, as well as timber. This had devastating implications for indigenous Australians, as their traditional sources of food, including native plants and animals, also disappeared. In addition, contact between settler and indigenous populations during the Gold Rush was often violent and ended in the decimation of many indigenous tribes, as has been well-documented in the literature. Considering these facts, it is clear that Williamson had a strong awareness of Australian history and that elements of his plot for *The Glitter Gang* were indeed based upon historical facts.

Further impetus for the composition of a work based on indigenous themes may have arisen from Williamson's belief that in order for an Australian composer to "seriously disturb the language of music in the Western world," an "acceptance of his indigenous past" would be necessary.

(Philpott 2010 pp. 243-244)

The last quotes are Williamson himself, in an article he wrote for the *Composer* journal (Williamson 1966).

*The Glitter Gang* stands aside *The Stone Wall* as one of Williamson's most sophisticated cassations, because of its extended development of compositional ideas set up in the first few sections of the work. As with many of the preceding cassations, Williamson was prepared to use a variety of harmonic approaches to the composition, extending harmony into bitonality as he did in *Genesis* but more interestingly here there is a gradual progression between simple diatonic melody and functional harmony and the latter bitonality. In addition, this progression is contrived carefully to extend characterisation and the moral point of the story. Philpott points out that "Musical characterisation was also a feature of *The Display*, another [of Williamson's] identifiably Australian work, where it was also used to separate and differentiate the various groups of characters." (p. 248)

Philpott's thesis does include some analysis of *The Glitter Gang* to support her assertion that "Williamson deliberately projected an Australian identity". It makes its points well, and is extended by the analysis that follows. For example, Philpott finds that the "good" Australians are represented in major keys, while the wicked others (European explorers and outlaws) are represented with minor keys. In fact, the following analysis shows that Williamson's harmonic language is more subtle than this, moving the Europeans' material from shades of consonance to dissonance, from established tonal centres to modulations of increasing frequency and eventually to chromaticism and even atonal passages.

The Australians' initial "Stream theme", which is indeed in a major key, displays their innocence by using the simplest harmonic language of the piece, but even this involves unusual or unclear modulations. And as Philpott suggests, the Europeans' initial theme is in a minor key, but more importantly it includes chromaticism and is supported by unrelated chords to that tonality to show that things aren't quite right.

As the story develops, so too does this harmonic language, and so too do these themes: the original Stream theme, its derivative water motif, the Europeans Water 1 theme which becomes fragmented increasingly as the work goes on, and the Outlaws Rumour theme. The Australians join with the Europeans and Outlaws, and thus their harmonic language becomes more complex. The lack of understanding between the three groups climaxes early in the work between bars 63 and 78, where the left and right hand of the piano accompany two different vocal parts in two different keys, and analysis will show that even within that bitonality much of the employed harmony does not rest in one key for long or even at all.

Other musical devices are used to characterise the three parts. Philpott (2010, p. 244) suggests that the opening Stream Theme suggests the shape of aboriginal melody, and while this origin is debatable, the Australians *are* given uneven phrase lengths throughout the work, whatever their material, suggesting perhaps that even though they are often given the most conventional harmonic material that they are indeed very different from the Europeans.

A more sophisticated compositional approach does not, of course, necessarily mean a work which is more difficult for children to learn. Detailed analysis does suggest, however, that the vocal lines in *The Glitter Gang* are some of the most difficult found in the seven cassations analysed, and also that there is quite a difference between the parts. In addition to high Pitch Proximity values in many of the vocal parts, some themes are not given the support of doubling in the piano part, even when performing new material. This difficulty is increased by an often unstable tonic or a series of seemingly functionally unrelated chords, offering little or no support to the undoubled vocal lines.

While the Australians may have some of the easiest material, they also have to learn more new material than any other parts: three lots of different material in the opening two sections. The Outlaws, on the other hand, have difficult material, but only a little of it - in fact, one third of the material the Australians learn in a purely bar-by-bar measurement. The demands on the European parts are midway between these two. To counter this a little, no unexpected Pitch Reversal is found throughout the piece, and the range employed across all three parts is very similar, as shown in Table 3.18.

Part	Range (occurrences)	Median Pitch	Most common 3 pitches (occurrences)
Australians	B3 (6) to E5 (2)	G#4	B4 (47), A4 (41), F#4 (39)
Europeans	Bb3 (1) to Eb5 (1)	G#4	A4 (41), E4 (37), A#4 (36)
Outlaws	Bb3 (3) to E5 (1)	G4	G4 (17), Eb4 (13), F4 (11)

Table 3.18. Vocal ranges in *The Glitter Gang*.

Some cassations have shown use of complex harmonic writing. Some have shown use of development of musical material as one might expect to find in opera. In *The Glitter Gang*, Williamson works in detail in both areas. Despite these challenges, this remains a highly satisfying work of art, and the repetition (with or without variation) of material such as the Stream theme or Water motifs gives the work not only structural integrity but a musical platform for children to begin learning.

The published Weinberger Score uses rehearsal marks. These will be used in this analysis in combination with bar numbers, which are not included in the published score but can be quickly referenced from Table 3.19. Table 3.20 shows the structural outline

of *The Glitter Gang* which can be used to reference the above overview and the excerpted detailed analysis below.

Rehearsal mark	Bar number
A	11
B	21
C	31
D	40
E	50
F	59
G	69
H	81
J	91
K	101
L	110
M	120
N	130
O	142
P	151
Q	160
R	170
S	180
T	190

Table 3.19. Bar numbers corresponding to rehearsal marks.

Location	Material	Key	Modulation	Metre	Pitch Proximity
1-17	Australians Stream theme	E major	A major/E mixolydian, C# minor	2/4 and 3/4	1.39
18-25	Europeans Water 1	A minor	G minor, plus unrelated chords	3/4	2.52
26-39	Australians Stream theme	E major	A major/E mixolydian, C# minor, then D sharp major (transition)	2/4 and 3/4	1.39
40-49	Australian Strangers	B minor	A minor, Bb minor, B minor plus unrelated chords.	3/4	2.61
	Europeans Water 2				1.56
50-62	Europeans Stream theme	E major	A major/E mixolydian, C# minor	2/4 and 3/4	1.39
	Australians Stream countermelody				3.68

Location	Material	Key	Modulation	Metre	Pitch Proximity
63-78	Australians Come With Us	A minor	D minor, G minor, G major, G minor, B major and chromaticism	2/4	1.32
	Outlaws Rumour Has It	Ambiguous - G or D minor	G minor, B minor, B major and chromaticism		1.67
	Europeans Water 1 fragment	D minor	B minor		4.57
79-107  93-96 (subsection of above)	Australians Here Is Our	B major	C# major, B major, A major, E major, A major	3/4	2.18
	Europeans Water and Gold				0.23
	Outlaws Rumour Has It		B minor, A major		1.72
108-119	Europeans Get Away	Chromatic over A then Eb pedal	Chromatic	3/8	0.17
120-129	Australians Strangers	G# minor, not fully established	Chromatic	3/8	3
130-136	Get Away Intro repeat	Chromatic over E pedal	Chromatic	3/8	N/A
137-146	Europeans Stream theme	E major	A major/E mixolydian, C# minor	2/4 and 3/4	1.39
147-157	Europeans Let Us Alone	Chromatic	Chromatic	3/4	0.11
	Outlaws Give us that gold				0.36
158-176	Outlaws Stream Theme	B flat major	E flat major, A flat major, E flat mixolydian, C minor	2/4 and 3/4	1.39
	Europeans Dying		E flat major		1.7
177-183	Australian Strangers	D minor	D major, F# minor, F# major	3/4	3



Location	Material	Key	Modulation	Metre	Pitch Proximity
184-197	Australians Here Is Our	B major	C# major, B major, A major, E major, A major	3/4	2.18
198-204	Instrumental ending, Outlaws Rumour accomp, Strangers	B minor	B major, B minor	3/4	N/A

Table 3.20. Structural outline of *The Glitter Gang*.

The opening material is named the “Stream” theme in this analysis. Philpott (2010, p. 246) observes that the material in this first section acts as a refrain. Further to that, the E major home key is often referenced (but not always) with its repeat, and the rhythmic motif is not just an ingredient in the “Stream theme” refrain in but the (movement of water in the) stream itself, reappearing, for example, in different material at the Tranquillo section (bar 79 or 2 before H) because the action is still about the stream.

This section also establishes other musical devices that Williamson associates with the Australians: irregular phrase lengths and major tonalities. Philpott (2010, pp. 247-8) observed that as well as the music of the Australians being in major keys while the others are minor, their message is always positive or peaceful. The exceptions to this rule are the “Who would not help a stranger?” repeated motif which is clearly minor, the original “Stream theme” which references minor keys (see below) and where the Australians are required to sing with other parts (for example, letter D), they fit with the minor tonalities.

Not only are the phrase lengths of the Australian material of different lengths, but this first section also includes a change of metre for the second bar of each two-bar phrase - the only time an individual section of any cassation includes a metre change. While the melody is simple and mostly stepwise (and conforms to Pitch Proximity expectancy), as usual Williamson extends the harmony that underlies it. He does not fully establish any modulation to A major or E mixolydian, but the changing D sharp/D natural chromaticisms suggest passing movement to those tonalities in bars 3-4, 10-12, and 14-15. More formally established by the B sharp accidentals, the phrase opening at bar 11 and the perfect cadence at bar 14 is C sharp minor. The harmony is often coloured by

added 7ths and passing notes, but does not include harmonic changes as unexpected as other sections of the work.

After the relative harmonic and melodic stability of the Australian's theme, the use of pitch in the Europeans' theme (bars 18 to 25) is highly contrasting, which underlines the differences in characterisation. Based at first in A minor (a distant key from E major), Williamson returns to the tonic regularly, but in between uses triads from other keys. The opening progression is simply of chords that share the same minor quality, from Am to Bm and G#m. In the second bar, the Bm - E7 - Am progression provides a cadence via the secondary dominant, before further shifts between Am and Bm. This is shown in Figure 3.28, in which the A minor tonic-dominant relations are shown while unrelated chords are not labelled with Roman numerals.

The image shows a musical score for the piano accompaniment of the Europeans' theme, spanning four measures. The key signature is one flat (B-flat), and the time signature is 3/4. The melody is in the right hand, and the accompaniment is in the left hand. The harmonic analysis is provided below the staff:

Am — Bm G#m Am D7 Bm E7 Am — Bm Am/F# Bm7 —

I — I VofV V7 I4 I I

Figure 3.28. Harmonic analysis of the accompaniment to the Europeans' theme.

The melody which the piano part accompanies uses only notes from the key of A minor, except at the end where it moves to the leading note of G minor, the next key used. The melody is not as stepwise as the Australians' melody, and its overall pitch proximity reflects this. Any changes in direction meet expectancy according to pitch reversal analysis. At bar 22 the whole phrase is repeated exactly, but down a tone, in G minor.

After a repetition of the Stream theme, a section combines the Europeans' Water theme with new material for the Australians, including "Who would not help a stranger?", a repeated rising line or motif which is used throughout the rest of the work to point to the tragedy and irony of the story. Neither line is doubled by the piano in this section. The Australian phrases are uneven again, this time beginning as a one-bar phrase, then the same phrase a tone lower with an anacrusis, and then two three bar phrases of "Who would not help a stranger", as shown in Figure 3.29. The key skips around with the

accompaniment, and more jumps are seen in the melodic shape, resulting in a much higher pitch proximity than in the Stream theme.

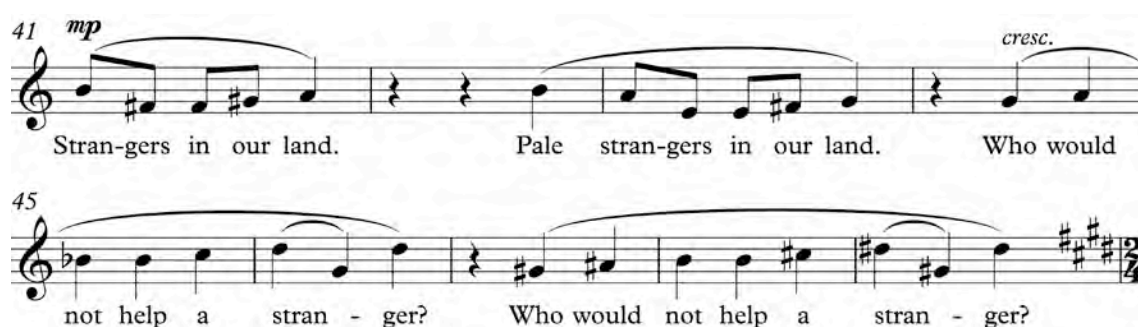


Figure 3.29. Australians “Stranger” theme, bars 41 to 49.

There follows another section (bars 50 to 62) where the Australians sing more new undoubted material with very high pitch proximity (many leaps), this time a countermelody to the Europeans’ repetition of their own Stream theme. The complexity of this section is nothing compared to the next, however, which serves to introduce the Outlaws, and immediately the musical language changes. To this point there has been a simple distinction between the more-often major and more-often fixed-in-key Australians, and the less harmonically stable Europeans. While the Outlaws remain out of sight at this point in the action, this section has been named “meeting” because three distinct ideas are working together, and on first listening it is unclear whether Williamson is writing so chromatically that the section (bars 63 to 78) is atonal, or whether what sound like diatonic ideas are just not meant to fit together - a musical version of the clash in the drama between these three peoples. This entire section is reproduced in Figure 3.30.

63

Aus. Come with us and we shall show you where the

Out. *mp* Ru - mour has it gold is here - a - bouts; Here - a - bouts

Pno. *non legato*

68 **G**

Aus. wa - ter flows Come with us and

Eur. Wa - ter, wa - ter!

Out. must we pur - sue Gold - en find - ings

Pno.

73

Aus. we shall show you where the cold gold gleam - ing wa - ters

Eur. Wa - ter, wa - ter!

Out. gold - en tak - ings Are the out - laws' due

Pno.

Figure 3.30. The “Meeting”, bars 63 to 78 of *The Glitter Gang*.

Of course, Williamson's intention is the latter, and in fact his approach is as blunt and simplistic as it is effective. Not only are the two main vocal parts in this section in two different keys, a similar technique to the bitonality seen in *Genesis*, but the right hand of the piano accompaniment supports the Australian vocal part and the left hand supports Outlaws. Add to this Williamson's typical chromaticism and regular sudden modulations to distant keys *within each independent hand of the piano* (or even just references to keys without establishing in them), and it is no wonder that the resulting music sounds atonal.

To see this process more closely, Figure 3.31 shows the right hand of the piano with the Australian vocal line - the left hand and other vocal parts are omitted. It begins in a clearly-established A minor, using just chords i and iv. At bar 65 the C# and B flat suggest a modulation to D minor, and while there are many passing notes in both melody and accompaniment the overarching harmony is simple tonic dominant.

63  
Come with us and we shall show you where the wa - ter

A minor: i iv i iv D minor: V i V<sup>7</sup> i

69 **G**  
flows Come with us and

G minor: i G major: I IV G minor: i iv i

73  
we shall show you where the

(key ambiguous)

76  
cold gold gleam - ing wa - ters

(Suggests B major) (Suggests F# minor) (G major) (cadences to B major)

Figure 3.31. Harmonic analysis of the right hand of the piano and the Australians' vocal line.

At letter G there is another sudden change to G minor, but this is where Williamson begins to make the changes less clear. The E natural at the end of the same bar and the chord at the beginning of the next bar suggest G major, which establishes itself but then immediately reverts to G minor again. Bar 72 closes clearly in G minor, but bars 73 to 76 are harmonically ambiguous, with too many passing chromaticisms and dissonances between the vocal part and accompaniment for any suggestion of a key to be possible.

From bar 76 to the end of the section there is the suggestion of B major, F# minor and G major but the music does not spend enough time in these keys to establish one of them. Eventually it cadences to B major across the end of this section and the beginning of the next one.

While the majority of the time the piano does support, or at least fit with (there is no melodic doubling at all) the vocal part, it also works as its own independent line as well. The red asterisks every four bars signify the beginning of another figure developed from the Stream theme, this time with much more interesting melodic shape. The figure is not identical on each repeat, not only because it is transposed, but also because it is altered to fit the overall harmony that supports the vocal part. It is transposed upward on each repetition: the first and second times a perfect fourth, and the third time a minor third.

It is unusual in the cassations for Williamson not to support a new vocal melody, and even more unusual for that melody to be sung the first time against another line (although there was an example of this in the prior section). Making this even more difficult for the vocal part is the fact that the key is ambiguous for the second half of the section, plus the other vocal part and left hand of the piano are in a different key. This certainly establishes some of Williamson's most difficult vocal writing in the cassations, despite the fact that the melody is often stepwise and has very simple rhythms.

Interestingly, the independent melodic figure repeating throughout the right hand of the piano in this section does not appear again in the work in this form. Williamson continues to develop the Stream theme in other ways as well as repeat it in its original form.

The Outlaws melodic vocal line is also made of a repeated pattern that is transposed up a step (semitone or tone, with no particular pattern) each time it repeats (every two bars except at letter G and the final two bars of the section). While the melodic shape is much simpler than the Australians' because of its repeated patterns and closer pitch proximity throughout, where the Australians benefitted from at least some sense of tonic and harmonic direction in the first half of the passage, the Outlaws' accompaniment lacks a stable tonic throughout, even when the left hand of the piano is separated from the right, as shown in Figure 3.32.

The regular changes between B flat and B natural in the accompaniment in bars 63 to 69 stop the piece establishing a G or D minor tonality (the latter further suggested by the D minor chords in bar 65 and 69 and the C sharps in bars 66 and 69). A D major 7 chord at the end of bar 70 does resolve to a G minor chord in bar 71, and there the piece does establish G minor for a fleeting moment, only to jerk chromatically upward to suggest B minor at bar 75 before the cadence to B major across this and the next section.

63 *mp*  
Ru - mour has it gold is here - a-bouts; Here-a-bouts must we pur  
(key centre ambiguous, G & D minor suggested)

69  
sue Gold - en find - ings  
G minor:  $V^7$   $i$  (chromatic upward movement)

73  
gold - en tak - ings Are the out - laws!  
B minor:  $i$   $ii^\circ$   $i$

77  
due  
 $v^7$  (implied/substitute)

Figure 3.32. Harmonic analysis showing the Outlaws and the left hand of the piano.

In between these two parts, the Europeans sing a repeated falling figure “Water, water!”, fragmented from their Water 1 theme. Again, it is not doubled by the piano, although in



this case the beginning pitch can clearly be heard in the right hand simultaneously to the first note each time.

To summarise the analysis of this most complex of sections: Williamson is writing two clearly independent vocal parts with accompaniment in two hands of the piano. The parts sing in different keys and so are bitonal, but the Australians part lacks a clear tonic in much of the second half of the section, and the Outlaws part suggests key areas but only establishes them in passing twice. In this case, one can argue that this passage is actually atonal, or multitonal. The Europeans fit between these two lines with a shorter and simpler phrase which is a fragment of earlier material (while the other two lines are entirely new material). The vocal lines themselves contain their own challenges even without everything else that is going on around them: the Outlaws line includes more chromatic movement than the Australians and also less expectancy in Pitch Proximity. None of the parts are rhythmically complex, but again the Australian phrase lengths are uneven, lasting 4 1/2, 3 1/2, 4 and 5 bars respectively.

The following *Tranquillo* section is much more simple, being another development of the Stream theme, this time in 3/4 and B major (the dominant of its original key). The Australians have more new melodic material, but this time it is doubled in the piano. There is only a little chromatic movement in the second, and modulations are to more closely related keys. The harmonic and melodic calm does not last long, however, with the Europeans' "Get Away" section introducing chromatic material to coincide with their words "Get away before we kill you!". In response, the Australians recap their "Who would not help a stranger?" theme, this time moving up the G# minor scale but with non-functional harmony - chords that include some chromatic movement and end with the D sharp of G sharp minor enharmonically treated as the E flat of an E flat minor 7 chord as shown in Figure 3.33.

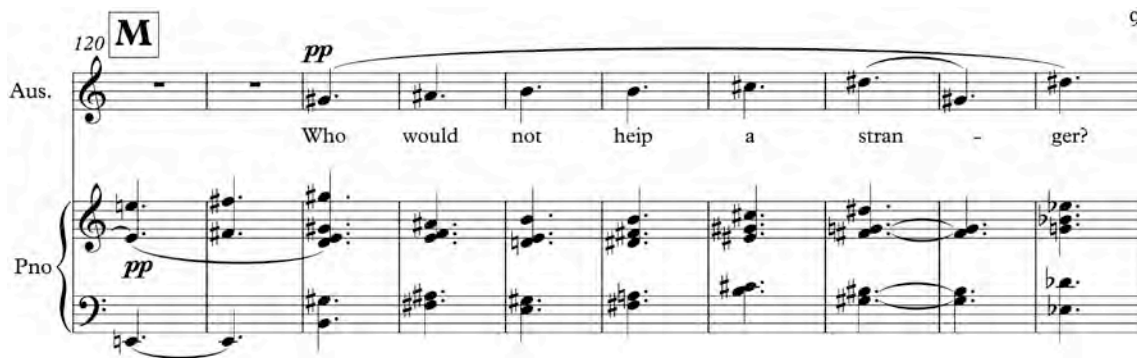


Figure 3.33. The Australians' "Who would not help a stranger?" theme at letter M.

Williamson then repeats the "Get Away" introduction and the Europeans sing the Stream theme in its original key of E major before another abrupt change as the Outlaws arrive at bar 147 to take the gold.

The final arrival of the Outlaws is announced by fast, dissonant triplet movement in the piano as shown in Figure 3.34 which Philpott (2010, p. 248) explains represents the sound of horses galloping: Williamson says in his programme note that the Outlaws are "ranging the bush on horseback" (1973-4, p. i).



Figure 3.34. The "galloping horses" accompaniment.

The Outlaws sing "Give us that gold!" in simple marcato crotchets and a sustained dotted minim on a repeated pitch which rises on each of the subsequent statements. In answer, the Europeans borrow the "galloping" melody which in turn represents their panic as they sing "Let us alone!", also on repeated pitches (consistently A sharp). As such, the vocal lines are relatively simple, and their pitch is supported (but not doubled) in the piano top or inner voices. At bars 155-157 accented syncopated dissonant chords ring out, which represent sound of the Outlaws firing their rifles at the Europeans.

The cassation ends with the repetition and variation of four sections: the Outlaws taking their turn at singing the Stream theme, The Australians ironically repeating the “Who would not help a stranger?” theme and the “Here is Our” theme, and finally an instrumental ending, the piano quoting a further two motifs to end with parallel modulations (or modal alternation; Philpott uses the former term) of B minor and B major. Of the final B minor chord, Philpott says: “By refusing to close the work on a major chord, Williamson conveyed the message that the loss of innocence experienced by the “Australians” is permanent and can never be restored.” (2010, p. 248)

Thus ends the highly sophisticated *The Glitter Gang*: at least, highly sophisticated in the terms of opera for musically-untrained children. In addition to compositional techniques already exhibited in many of the previous cassations, in this work Williamson challenged children with three new levels of difficulty: multitonality verging on atonality in the “meeting” section; many sections (especially in the Australians part) which are not supported by doubling in the piano; and the constant development of musical themes or motifs (especially the stream theme), bringing this cassation closer to a recognisable operatic form than any before it.

Consistent compositional approaches by Williamson in the cassations have arisen naturally through the course of these seven detailed analysis, and detailed comparison of techniques will be broached in Chapter 4.

## Chapter 4. Conclusion: On Writing For Musically-Untrained Children

Chapter 3 provided in-depth analysis of seven of Malcolm Williamson's cassations. In this chapter, detailed summary of the consistent compositional techniques employed provides further insight into Williamson's developing approach to composition for musically-untrained children. Examples are provided from all cassations. The following list of techniques was compiled only from techniques that were observed in two or more of the cassations. In many cases they may be considered "unusual" in the context of music composed by western art music composers for musically-untrained children (for example the music of Orff, Kodály or Britten, as outlined in Chapter 1).

### **Vocal range, pitch proximity and pitch reversal analysis**

Chapter 1 referenced the work of Heylen, Wuyts et al in identifying a Standard Childhood Profile which is seen to give the most accurate data to date as an identification of 'comfortable' vocal range of 7 to 10 year old children. The range of frequencies where dynamic range is at its widest when considered as pitch was from approximately B3 to B4 (this is shown in Figure 1.1), with pitches available with lower dynamic control outside that range, down to G3 and up to G5.

Analysis of the vocal ranges used throughout Williamson's cassations show that generally he composed within the middle range of the Standard Childhood profile, with median pitches of all vocal parts consistently between E4 and B flat 4. Generally he extended the upper end of the range more than the lower, with most vocal parts written between B3 and E flat 5: the exceptions at the lower end of the range being the lower parts of *The Snow Wolf* (G3) and *The Stone Wall* (A3), and at the higher end in some parts in *The Snow Wolf* (G5) and *The Winter Star* (F5). In no cassation does Williamson ever exceed the outer limits of the range, showing his great understanding of the capabilities of the musically-untrained children's voice. A summary of the ranges used in all seven cassations is shown in table 4.1.

Cassation	Lowest	Highest	Median
The Moonrakers	B3 - D4	C5 - E5	F4 - Bb4
Knights in Shining Armour	Bb3 - D4	E5	F4 - Bb4
The Snow Wolf	G3 - C4	B4 - G5	E4 - Ab4
Genesis	C4	D5 - E5	F#4 - G4
The Stone Wall	A3 - B3	C#5 - D5	F4
The Winter Star	B3	Eb5 - F5	G4
The Glitter Gang	Bb3 - B3	Eb5 - E5	G4

Table 4.1. Ranges in all seven cassations analysed.

In Chapter 2 it was shown that Pitch Proximity values reflect the expectancy of each realised interval in analysis: closer pitches are more expected than distant ones. As a general rule in the cassations, Pitch Proximity values are low throughout (where low is interpreted as an average between a semitone and a minor third, meaning mostly or entirely stepwise), with only occasional vocal lines showing high values (where high is interpreted as an average over a minor third). A typical example of this is *Knights in Shining Armour* or *The Glitter Gang*. Where one section returns high Pitch Proximity values, often the reason is because of the use of a repeated ostinato over a wide interval (for instance, the “Stone on Stone” ostinato in *The Stone Wall*) or gestural sounds (such as the screams of the Sins in *Knights In Shining Armour*). Another reason for high Pitch Proximity values is where Williamson writes lines based on arpeggios, which are therefore made up of intervals of 3rds and 4ths. The exception to these generally low and occasional explainably high vocal lines is in *The Stone Wall*, where Williamson writes lines with values higher than 3 in several sections.

It was found that most of Williamson’s vocal lines met expectancy where he used large intervals (a perfect fifth or wider) in lines with Narmour (1990, 1992) and Schellenberg’s (1996; Schellenberg et al. 2002; Schellenberg & Trehub 1996) statistics on Pitch Reversal analysis. Where analysis identified unexpected realised intervals, these were low in number and usually found only once or twice in a particular song. They were never found in a high number of songs in a single cassation.

The trend results of melodic expectancy in the vocal lines of Williamson's cassations are similar to those of the traditional children's songs *Twinkle, Twinkle, Little Star* and *Frère Jacques* analysed in Chapter 2. One can therefore conclude, without knowing the success that the cassations enjoyed in hundreds of performances, that Williamson's melodic writing when considered alone is appropriate for the youngest children it was intended for. The qualification *when considered alone* is necessary because other aspects of the music not detected by I-R analysis such as supporting (or contradictory) harmony, lack of vocal doubling or part writing in some sections of some cassations make performance of melody more difficult. This is discussed in detail below.

A second useful comparison is with the I-R analysis of the excerpts of Williamson's vocal writing in his operas for adults or trained children included in Chapter 2. There are a few sections of the cassations where Pitch Proximity values are as high as in the excerpts of the professional operas, but these are always explained by arpeggiations or repeated patterns (for example the fifths at the opening of *The Stone Wall*) rather than the angular lines seen in *The Growing Castle* (see Figures 2.12 and 2.13). Generally, Pitch Proximity values are consistently lower. Where Pitch Reversal analysis is called for, the cassations display very few unexpected intervals. This provides a statistical conclusion that Williamson changed his approach to writing vocal lines for musically-untrained children.

### **Tonality and harmony**

Most of the more challenging elements of the cassations are found in Williamson's use of tonality and harmony. As has been stated in all of the analyses in Chapter 4, Williamson often establishes a key but uses functionally weak, unexpected chords or chords entirely outside that tonality. He frequently uses abrupt modulations from one section to another and in some cassations (such as *The Glitter Gang* or *The Stone Wall*) even midway through a section, with no preparation or transitory material. This is not a simplification of his harmonic technique, however: one critic noted Williamson's love of perfunctory key changes as early as 1968 in a review of *The Growing Castle*, writing of "his habit, for instance, of preparing modulations with no more ceremony than is involved in placing the relevant dominant seventh in front of the new key" (Walsh 1968, p. 12).

Williamson writes modally as well as diatonically (for example the phrygian and whole-tone modes in *Genesis*, the pentatonic “Blues” and Lydian modes in *The Stone Wall*, and the mixolydian mode in *The Winter Star*) and when at his most challenging, composes sections that are extremely chromatic or even use series of entirely unrelated chords resulting in distorted or ambiguous harmonic direction.

A harmonic method that stands between Williamson’s more traditionally functional harmony (e.g. *Santiago de Espada*) and his serial-derived or highly chromatic harmonic language (e.g. the symphonies analysed by Kendall-Smith (1994) or sections of other large scale works such as the *Organ Concerto* (1962) or in operatic terms *The Growing Castle* (1968)), is his use of simple chordal material (often triadic) governed by intervallic relations. In these cases one chord is related to another by fixed interval, such as a third (major or minor), as seen in *The Snow Wolf* where the recitative passages use patterns of chords moving by thirds (alternating major and minor, and up and down). In the “Now they’ve gone theme” in *Knights in Shining Armour* chords rise by a third (major or minor); in *Genesis* the left hand of the section beginning in bar 35 is a series of minor triads rising by thirds (and the melody in this section is also made up entirely of thirds); in *The Winter Star* the opening piano left hand material outlined above is simple block chords in parallel motion which rise by thirds (I-iii-V-vii).

Looking at this latter example more closely, in bar 2 of *The Winter Star* the left hand of the piano plays an E minor triad (chord iii) while the right hand outlines an F major chord (chord IV) and the melodic instrument (the staff above) is ambiguous. In bar three the left hand of the piano plays a G major chord (chord V) while the right hand and melodic instrument arpeggiate an A minor chord (chord vi).

The chords in the left hand follow a pattern of rising by a diatonic 3rd each time. In the fourth chord, B minor, Williamson retains the perfect fifth, adding an F sharp, instead of writing a diminished chord vii as would be expected within the prevailing key. Alone, the harmony in the right hand (sometimes reinforced by the melodic instrument) suggests the progression I-IV-vi-I/V. This is shown in Figure 4.1.



Figure 4.1 The harmony in the opening of *The Winter Star*.

Further pitch relationships can be found within this short, simple excerpt. The melodic instrument above the piano is a rhythmic augmentation of the right hand of the piano, meaning the spelling out of tonic and subdominant chords are happening simultaneously at different speeds. The line of pitches itself is also of interest, expanding out from the pitch of C at first by a diatonic second, then third, then fourth, then back again: 3-2-1. This can be interpreted as one of Williamson's palindromes at work.

Kendal Smith (1994, p. 102) identifies Williamson's favourite intervals not as thirds but as seconds and fourths. Relations of seconds can also be found in *The Snow Wolf* and in *The Stone Wall*. In the latter work, Williamson explores the interval of the augmented fourth (with a major seventh) - adding it to triads to create dissonance, and using the dissonant semitone as a feature of define harmonic movement.

Another method used to expand on diatonic harmony is Williamson's occasional use of bitonality. This is seen in sections of *Genesis* and *The Glitter Gang* (and was outlined in detail in Chapter 3). It has been argued that the opening "Savages" section of *The Stone Wall* could be heard as bitonal, but analysis does not support this suggestion as strongly as in *The Glitter Gang*.

Frequent unexpected modulations to unrelated keys have already been mentioned as a common occurrence in the cassations, and there are also several examples of parallel modulation (a term which means the tonic stays the same, but the tonality changes from major to minor or vice versa) for example the majority of the modulations in *The Snow Wolf*, or in *The Glitter Gang* bars 198 to 204.



### **Development of musical material**

Williamson does not use established operatic forms in any of the cassations, despite the use of the term “recitative” to denote some sections of *The Snow Wolf* and his own description of the cassations as an introduction to opera. The closest Williamson comes to the operatic tradition is that in some of the cassations the *development* of musical material to fit the action is clear. Philpott (2011, pp. 242-252) also suggests that the operatic value of the cassations is in the careful relationship between the musical material and characterisation. Examples of motivic development in its traditional sense are the repeated use and exploration of the “Stream” and “Water” themes in *The Glitter Gang*, the development of the Knights theme in *Knights in Shining Armour* at bar 13, and to a lesser extent in the manner in which Williamson develops themes into accompanying ostinati in *The Stone Wall*. In contrast, other cassations simply repeat music exactly, or modulate material exactly to another key, which becomes a more structural device than developmental (for example *Genesis*, which is built over a large repeat structure).

Williamson also uses the related methods of reharmonising existing themes (for instance, the “passengers melody 2” in *The Snow Wolf* is reharmonised in bars 106 to 113), or of making multiple themes fit the same harmony. Examples of this include *The Winter Star* figures 1 to 2 which include three separate melodies over the same harmony, or the “Knights” and “Whispering” themes in *Knights in Shining Armour* combining over the same harmony at bars 33 and 85.

### **Supporting the melody and writing in parts**

In children’s music it is common for the melody to be doubled in the right hand of the piano part, unison to the voice. As a general rule, this can be seen in the voice and piano editions of all cassations, but there are also instances where Williamson does not support the voice with doubling. Examples include bar 63 of *Genesis*, the sections marked “Recitative” and some of the Drivers and Stokers material in *The Snow Wolf*, and the initial (Adult, Children, Star) melodies in *The Winter Star*. In addition, many of the Australians’ parts in *The Glitter Gang* are not supported, even when presented with new material.

As a general rule, when Williamson writes in parts in the cassations, he introduces each line first (usually supported) before dividing into parts. Part writing is usually in the form of two or three parts that have been sung on their own and are then combined, for example “Hump the Kegs” in *The Moonrakers*, the same initial melodies in *The Winter Star*, or the Knights and Robbers’ themes in bars 33 and 85 of *Knights in Shining Armour*. Williamson also uses Canon, exemplified in the finale of *The Winter Star* (at varying durations), 4 bars before G in *The Moonrakers* (at four bars), and in *The Stone Wall* and *The Glitter Gang* he develops accompanying lines or ostinati from themes that have already been heard, and puts them against new material in other parts.

### **Rhythm and metre**

In comparison to his use of harmony and some of his more complex vocal lines, Williamson’s rhythmic writing is conservative. He rarely uses syncopation in the seven analysed cassations, and rhythms are predominantly written with note lengths of a quaver or longer (or to put it another way, the beat is rarely divided by more than two or three). In his notes to teachers in the published cassations, Williamson states that “each cassation has choruses in different time signatures”, but in fact *The Stone Wall* does not change metre at all (although themes are repeated in half- and double-speed). *The Winter Star* is the only cassation with an uneven metre (5/4) and there is a predominance of simple metres over compound, which is not typical in music for very young children, who often sing nursery rhymes with a “skipping” crotchet-quaver compound feel. *The Glitter Gang* is the only cassation with a section which changes metre (four bars of 2/4 and then one of 3/4 in the opening “Australians Stream Theme”). Repeated rhythms combine with pitch to become part of some other compositional devices, such as ostinato or sequence/pattern based themes as found in *The Stone Wall* and *The Glitter Gang*.

### **Parallel harmony (planing)**

A technique employed by romantic and impressionist composers such as Chopin and Debussy, parallel harmony (also known as *planing*, *harmonic parallelism* or *parallel voice leading*) is used in the accompanying piano part of *The Snow Wolf*, *The Winter Star*, *The Stone Wall* and the opening of *The Moonrakers* (in each case, it is used in the opening). Because the voicing of each chord is the same, it creates a simplistic, childlike

effect, which is compounded in *The Winter Star* by setting it against other harmony that does not match, making it sound like ‘mistakes’. It could be, however, that Williamson simply liked the sound of it, and did not mean it to be interpreted like that at all.

### **Conclusion - writing for musically-untrained children and retaining a compositional ‘voice’**

Drawing a conclusion on whether a composer successfully retains their ‘voice’ when composing music for musically-untrained children necessarily involves subjective judgements in addition to comparison of data collected in analysis. Because Williamson did not compose in one easily identifiable style or with a set of compositional techniques that can be easily categorised (for example minimalist or serial techniques), analysis provides only part of a bigger picture. Despite this, a clear picture of the development of a compositional method in the cassations does emerge from the background provided in Chapter 1, the analysis in Chapter 3 and its summary in this chapter. This can be compared with the existing analysis within the literature as summarised in Chapter 2 to draw a conclusion.

It can be concluded that Williamson’s vocal writing in his operas for professional singers or for trained specialist children was more melodically complex than his writing in the cassations. Where vocal lines showed higher average pitch proximity, pitch reversal wholly or generally met expectancy, as shown in Figure 4.2.

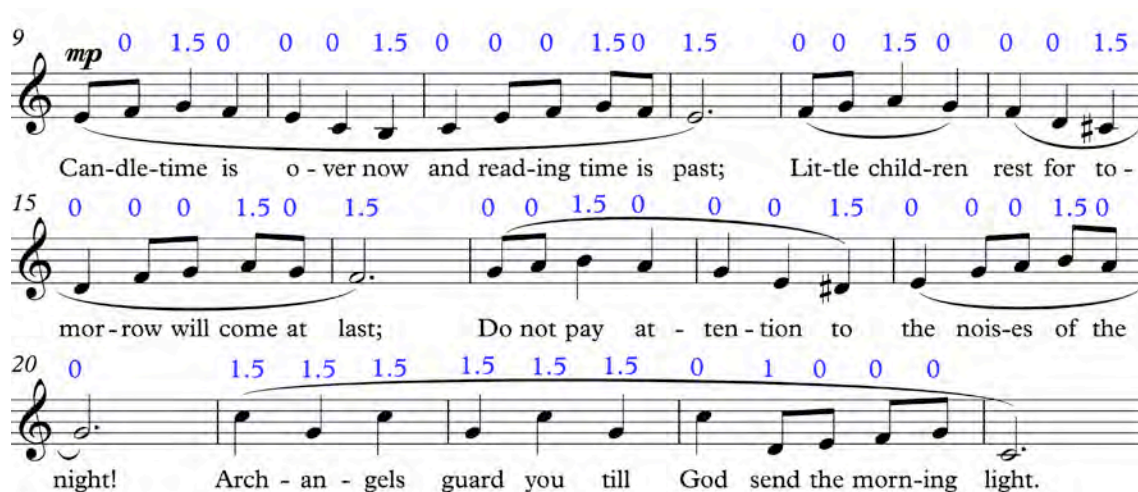


Figure 4.2. Pitch Reversal Values (Schellenberg 1997) in the vocal line bars 9 to 24 of *The Winter Star*.

It can also be concluded that in addition to making melodic shapes “flatter”, Williamson also limited the vocal range employed to one comfortable for musically-untrained children typical of 7 to 10 years of age. In some cassations, even more narrow ranges are found in individual parts, suggesting that these parts would be more suitable for even younger singers whose range may be as low as a third (Welch 2006, p. 317).

The affect that Williamson himself had on the success of the cassations must not be ignored. Analysis has shown that some of the writing would be extremely difficult for children to successfully perform, and yet there is documentary evidence that Williamson performed these exact works with mentally handicapped children, far exceeding the expectations of their specialist teachers (Barber 1976). In the mid to late 1970s, Williamson spent a great deal of his time rehearsing and performing these works himself: prior research in this field leaves no doubt that Williamson’s expectation itself could have contributed to these successful performances (Welch 2000, pp. 318-9).

It can be further concluded that in all cassations the simple vocal lines and rhythms are contrasted with a much more complex harmonic language. While sections of each cassation are entirely diatonic and use conservative, functional harmony, all explore extended harmony to some extent. This observation, elucidated in the analysis of the seven cassations is key to the question of voice. Over the course of the analyses, it has been observed that these contrasting sections of extended harmony become increasingly complex and less predictable. In his first two cassations, only one short section at the dramatic climax is harmonically adventurous: In *Moonrakers* (1967), the “Strange Theme” section at four bars before rehearsal mark P employs ambiguous harmony and a modulation to an unrelated key, and in *Knights in Shining Armour* (1968a) it is the section from bar 45 to bar 84 that moves through similar unexpected modulations. In *The Snow Wolf* (1968b), modulations by intervals rather than function and chromatic sections are introduced, and in *Genesis* (1971a) the first use of modes is established.

*The Stone Wall* (1971b) exemplifies the use of these techniques, developed individually in the first four cassations, and introduces more, having highly chromatic sections which sound almost atonal but are in fact based on chords built from related intervals with a definite tonic, the use of new modes including an unusual pentatonic mode, and

sections which modulate by tonic intervallic relation rather than function. Williamson's approach to writing in the cassations now established, he further explored these harmonic ideas in *The Winter Star* (1973) and *The Glitter Gang* (1973-4), the latter of which not only includes section after section that jump from one unrelated key to another, but also his most dissonant bitonal writing in the "Meeting" section at bar 93, analysed in detail in Chapter 3.

The development of Williamson's harmonic writing over the seven years these cassations were written gives the greatest clue to a connection to his professional work and artistic 'voice'. It is no coincidence that the little analytical work that has been completed on Williamson's output, as summarised in Chapter 2, has focused almost entirely on his approach to pitch. While his approaches to pitch have varied from work to work, and often within individual works, it is Williamson's constant exploration of the pitched content of melodic and harmonic material which best characterises him as a composer.

It has been established that while Williamson borrowed many of the developmental devices of serial composition, he could not be considered a true serial composer. Not only did he rarely use a 12-note row, or even a shorter row in its complete form, the "greatest contradiction to serial precepts is Williamson's idiosyncrasy of creating a central tonality within the mode" (Kendall-Smith 1994, p. 313). This approach to the organisation of pitched material is echoed in the very example from the opening of *The Stone Wall* mentioned above. In the right hand, dissonant repeated chords which themselves are a static pitch collection, an augmented fourth above a perfect fourth, then transposed to different pitches. In the left hand, the repeated lowest pitch of E, establishing a tonic, as well as the motif of the falling perfect fifth, both of which will be taken up by the singers at rehearsal mark A.



Figure 4.3. The piano introduction to *The Stone Wall*.

Other examples of this approach to harmonic writing have been given in detail already. The bitonal sections, especially at “The Meeting” in *The Glitter Gang* are reminiscent of the use of the nine-note series in the Second Symphony (Williamson 1968c) which is made up of three triads - D major, C minor and C sharp minor: more than one tonal centre is at play at once, which Williamson called “polymodal” (Kendall-Smith 1994, p. 101).

It could be argued that these sections of the cassations are such a small part that they cannot represent the collection of works overall, but this would overlook the many examples of ambiguous or chromatic harmony and ambiguous tonic which are found throughout the cassations, especially the latter ones. Kendall-Smith identifies many such sections in the second and third movements of the First Symphony (Williamson 1956-57) in which Williamson jumps from one diatonic triad and possible tonic to another: “The tonal centre of A-flat returns in the final movement, but it is in the guise of G-sharp, the third note of E Major. The dichotomy between a diatonic key and a mode transposition is far greater in this movement, partly because the music progresses through many transpositions of the mode rather than constantly emphasising just one.” (p. 80) She refers to this as the “blending of two grammars” (p. 80), and of the sections which move from one triad to another without settling on or suggesting a single tonal centre “modulation is employed as a conceptual process related to form, rather than a device to alter the tonality.” (p. 323) Kendall-Smith finds many examples of this throughout the Seventh Symphony (Williamson 1984): Chapter 3 illustrated that they are also found throughout the cassations.

To these extended approaches to harmony can be added the use of many other compositional techniques, and not necessarily only twentieth century ones. Gearing (2004) cites the use of isorhythm in the Organ Symphony (p. 16) and Soria identifies palindromic and canonic sections in his works (Soria 1984, p. 34). As discussed, canonic writing is used in *The Winter Star* and *The Moonrakers*, and other compositional approaches to pitch are employed, such as planing and ostinato-based layering. A kind of symmetry or palindrome in the right hand and melodic instrument lines was identified in the opening of *The Winter Star*.

The exploration of many approaches to pitch can be considered characteristic of Williamson. His eclecticism extended not only to writing in many styles, but often *changing* style or compositional approach many times within the same work. Again, this is epitomised in the cassations, where simple diatonic melody may be matched with expected functional harmony, where mode may be matched with chord relations by fixed interval, where frequent modulation may give way to ambiguous chromatic movement between one triad and other, and where dissonance may be explored through the use of polytonality or as an exploration of related pitch sets: and all this within one short work for children. It was an approach to composition that confounded critics, from his early reviews - “Instead of growing organically it swings backwards and forwards between two irreconcilable styles” (The Times, 18 February 1966) - to his obituaries: “I hardly ever heard a composition from him that did not contain something striking and imaginative, some genuine *trouvaille* or unanticipated turn to a level of fantasy which few of his peers could match. I always wished that such moments could be projected into whole works”. (Sydney Organ Journal, 2003)

But it was an approach that was entirely Williamson’s, and an approach which he consistently (even if the method itself was inconsistent) brought to the cassations and developed over a number of years. When writing for musically-untrained children, some musical elements had to be tempered, as has been shown in great detail, but the works are undoubtedly *Williamson*. The ‘voice’ survives, and the collection of cassations should serve as an incredible guide of what children are capable of when new composers come to tread in his footsteps.

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