Compositions by Matthew Hindson

Matthew Hindson, M. Mus. (Melb), B.Mus. (Hons.) (Syd)

A folio of original musical compositions and accompanying introductory essay

submitted in fulfilment of the requirements of the degree of

Doctor of Philosophy

Department of Music   University of Sydney

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Volume I: Introductory Essay

N.B.: This submission comprises a folio of creative work. It is in two volumes and includes two accompanying compact discs, musical scores and an introductory essay.

Certification

I certify that this work has not been submitted for a degree to any other university or institution and, to the best of my knowledge and belief, contains no material previously published or written by any other person, except where due references has been made in the text.

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Matthew Hindson

31st July 2001

Possible works to be included on the CD and in the folio of compositions:

- *Speed* (1996) – orchestra – 16 minutes [YES]

- *RPM* (1996) – orchestra – 4 minutes [DO I NEED THIS ONE?]

- *Techno-Logic* (1997) – string quartet – [no recording]

- *technologic 1-2* (1997) – string orchestra – 8 minutes [YES]

- *Night Pieces* (1998) – soprano saxophone and piano – 8 minutes [YES]

- *Rush* – guitar and string quartet – 9 minutes [YES]

- *In Memoriam: Concerto for Amplified Cello and Orchestra* (2000) – 34 minutes [YES]

- *Moments of Plastic Jubilation* (2000)– solo piano – 5 minutes [???]

- *Always on Time* (2001) – violin and cello – 2 minutes [???]

- *The Rave and the Nightingale* (2001) – string qt and string orch – 18 min. [???]

[CONCERNS: IS THIS CONCENTRATED TOO MUCH ON ORCHESTRAL AND STRING WORKS? – THEY ARE THE BEST PIECES THOUGH]

Chapter 1: Introduction

As an Australian composer living at the end of the twentieth / start of the twenty-first centuries, I believe that there is an obligation embedded in musical art that is created in this era: to impart and explore musical and extra-musical ideas that are directly relevant to, and representative of, the society in which I live.

As a starting point to creating this link in music, I have used aspects of popular music and integrated these into predominantly "classical" music forms and instrumentations. Initially these were precise and became almost literal, however as time progresses they are becoming decreasingly obvious.   They have become more of a historical reference point as the relevant musical concepts have become fully consolidated into my own personal style. I no longer make conscious reference to these popular music concepts, yet their origins may be easily traced.

This introductory essay is offered largely in the form of a presentation of history. My compositional development has progressed in a largely linear manner, and thus it seems that such a presentation would best suit an exploration (and explanation) of how I have arrived at my current compositional location.

This essay does not contain large amounts of in-depth musical analysis. I could have provided these, but it seemed to have been beyond the scope of what this document is trying to achieve..

The main reason for the writing for this introductory essay was to create a primary source that presents the background to, and reasons for, compositional choices that I have made. Such information is less likely to be readily available in the future it not presented here. Consequently I have instead decided to leave the bulk of large-scale analysis to people in the future for their own investigations.

Chapter 2: Beginnings[1]

During 1991 and 1992, I was undertaking a Master of Music degree at the University of Melbourne, majoring in composition. The opportunity to move to Melbourne and to study with Brenton Broadstock, whose music I admired, was one which was too good to refuse.

Before and during this time of study my music was generally very extroverted in gesture. However I was still searching for a harmonic and musical language of personal significance such that it could adequately express my musical ideas. In other words, I had enough to say, but not the means by which to say it.

The contemporary musical scene in Melbourne at this time was exciting and vibrant. The most high-profile contemporary ensemble was Elision. In addition composers including Chris Dench, Ian Shanahan and Michael Smetanin were in residence during this time at the University,. Richard Barrett gave guest lectures, and Elision featured his music in a concert (including the very impressive work, *Earth*, which was premiered). Liza Lim was a lecturer of composition in the Faculty of Music at the time, and the director of Elision, Darryl Buckley, gave a guest lecture at a composers' seminar.

Elision was and is an ensemble that is very focussed in terms of which repertoire it pursues. To widely generalise, it is dedicated to European-derived modernism.

The modernistic philosophies behind this music were also expounded to the students via the abovementioned composers' contact with the students. For example, in a discussion with Michael Smetanin before a lesson, he mentioned that his goal in music was to "create music that was totally new, that wasn't influenced by anything else." He stated that didn't know how he was going to do this, but it was an important precept to his philosophy of composition.

Such ideas were very influential on a large number of undergraduate and postgraduate composition students at the time. Whilst it was never overtly stated, the dominance of Elision

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[1] Please note that there are many compositions referred to in this historical overview that, for the sake of brevity, are not represented in the attached folio of works. In addition, the date of composition of some of these fall outside the candidature period. They have been included as they are important to the overall narration.

within the performing scene meant that that type of music that was performed became the dominant paradigm.

To be fair, my private composition lessons with Brenton Broadstock did not expound such a view. Brenton was interested in making sure that the musical material that I was using was compact and self-referential, that is, that musical ideas were "recycled" within a work.

However, it was stated to me that as my M. Mus. composition portfolio was to be an academic document, the music within it needed to display some measure of academically justifiable content. [SAY WHAT I THOUGHT THIS WAS? OR IS IT SELF-EVIDENT]

The strongest works written during this period included *Elvis* (1991) for twelve virtuoso solo singers and electronic bass drum, *The Power of the Gun* (1992) for amplified chamber choir and ensemble, and *Mace* (1992) for amplified guitar with effects pedals.

Upon relection, all of these three works included some integration of popular music within a classical music context. *Elvis* is a set of four movements based upon phases of Elvis Presley's life: "Teddy Bear" – based upon a song he sang during the 1950s; "Suspicious Minds" – a song from the revitalised 1970s Elvis which strangely mirrored his personal relationship with Priscilla Presley; "The Death of Elvis" – based around the reaction to Presley's death; and "Elvis is Alive!" – based upon Presley's "resurrection": alleged sightings of the singer more than ten years after his death. The first three movements are based structurally around Elvis' music, whereas the final movement employs 1980s house music rhythms as its basis. The first three movements mutated elements from popular music so as to render their heritage largely unrecognizable. "Elvis is Alive!" used substantial aspects of the house music genre, including rhythm patterns and harmonic motives. It was not particularly successful as the choral medium did not lend itself particularly well to the intricate rhythmic layering techniques that were employed.

The Power of the Gun included vocal rap-style delivery. Like *Elvis*, techniques such as pitch sets and chord multiplications were used to provide much of the harmonic language, and there was no attempt to replicate any of the textures or structural concerns present in popular music.

Mace is a ten-minute piece of extreme viruosity written for the guitarist Ken Murray. For amplified acoustic guitar, it includes effects pedals in its final section to make reference to the sounds and gestures typical of some electric guitar figurations in rock music, including wah-wah and octaver effects.

At the same time as composing these works, I was become more and more involved in listening to popular music. 3RRR is an independent subscriber-funded radio station that specialises in playing some of the less "mainstream" types of popular music. For example, every Saturday night death-metal music would be programmed. 3RRR generally covered an eclectic mix of various popular music genres, from garage bands to folk music to dance music in specialized programming blocks.

Hearing many of these alternative popular music genres was as much a personal revelation to me as hearing the latest contemporary music from Europe. The two types of popular music with which I felt the stongest connection were techno and death-metal.

These two popular music genres both contain a diverse range of sub-genres (trance, house, jungle, drum'n'bass and happy-hardcore all fall within the broad techno genre, and speed-metal being another sub-group of death-metal, which is itself a sub-group of the broader heavy metal). However they encompass a number of common elements that provided great personal appeal:

- **Clarity**:both of these genres are harmonically, rhythmically, structurally very clear. Death-metal is less texturally clear on one level, though it is consistent in terms of its texture remaining consistently thick;

- **Extroversion** in character, and **immediacy** in delivery;

- Interesting **rhythmic** and **sound-layering structures** are created;

- There is often a subtlety in **sound-creation**;

- The music is **physical** in terms of the levels of excitement and visceral reaction that it intends to create; and

- **Virtuosity** in performance, especially in death-metal where rapidity of technique is of paramount concern.

Many of these intentions are indeed present in works like *Mace* and *The Power of the Gun* from this period. Others, such as harmonic clarity and rhythmic construction, are not.

During the premiere of *Mace* in Melbourne in 1993, I experienced a sudden moment of epiphany. The middle section of this work is constructed around a large passacaglia. A huge chord progression is repeated three times, each time becoming more and more ornamented (both rhythmically, motivically, timbrally and harmonically). It was an attempt on my part to experiment with some of the musical techniques that I had encountered in the two years in Melbourne up to that point.

When it came to listening to that music in concert, I suddenly realised that I could have been listening to any composers' music but my own. There was nothing at all personally relevant to me in it. Whilst it contained many beautifully filigree shadings of tone colour, and a solidly developing and satisfying structure, on a deeper level it was conveying *nothing at all* to me as an individual. I felt that as an Australian person living in contemporary society, there was no connection, and that the musical techniques that I had employed thus became utterly false and irrelevant.

In contrast, the techno and death-metal music was totally different. I felt a personal connection to its intent and execution, and they seemed much more applicable to my attitudes towards music and music performance.

On one hand, these realisations were disturbing as it seemed to invalidate what I had been attempting to creat. On the other hand, it produced a sensation of liberation. It became clear what sort of music I was <u>not</u> going to compose.

Chapter 3: Increased integration of popular music

In 1993 I based once again in Sydney, working full-time as Director of Strings and Composition at MLC School, Burwood. An opportunity arose to write a work for a talented violinist's final music examination. If anything, working with children reinforced the futility of me looking to European modernistic models.

As a new model, I decided to look towards the musical genres that techno and death-metal for my compositional source material. As described, in earlier works I had used aspects of popular music styles but in a loose, vaguely-referential manner. For this new piece the intention was to employ a greater degree of easily-identifiable musical constructs directly derived from these popular music styles.

The solo violin piece eventually became a ten-minute work for two violins, entitled *Chrissietina's Magic Fantasy* (1994). This piece differs from my previous works in that:

- there is a much greater use of triadic harmony;

- rhythmic patterns are easily related to techno music, especially the groupings of three and 2 semiquaver patterns above an actual or implied strong crotchet pulse;

- there are direct intentions to imitate timbral and/or instumental qualities, such as the unintelligible and undeciferable vocal shouting of a death-metal soloist;

- stylistic influences are presented very directly, with less filtering than in previous works;

- there is much greater use of repetition as a musical element;

- there is a very clear (though not necessarily constant) pulse throughout the piece

Factors such as the virtuosity and extroversion still remained very strongly present in the piece, and the incongruity in listener's minds as to the typical nature of violin music as opposed to the "sonic enslaught"[2] of *Chrissietina's Magic Fantasy* was a deliberate juxtaposition.

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[2] Kouvaras, Linda: programme notes to *Chrissietina's Magic Fantasy*, Greenbaum Hindson Peterson (GHP-01), 1997

During the compositional process I felt a degree of unease about what I was writing, mainly due to the fact that it was significantly different to the sort of music I had been composing. Although the dominant modernist paradigm of Melbourne was not as strong in Sydney, there was a sense that the music I was composing was not an acceptable contribution to the canon of Western music.

However as previously mentioned, I believed that alternative was less than satisfactory, and such experimentation was worth a try. After all, feeling strongly about popular music styles seemed a very valid reason to write my own music about it.

Other works written about this time include *Homage to Metallica* (1993) and *AK-47* (1994). *Homage to Metallica* is an orchestral work that was composed for the National Orchestral Composers' School, administered by the Australian Music Centre and held that year with the Adelaide Symphony Orchestra. David Porcelijn was the conductor, whilst Roger Smalley was the orchestral tutor.

As the title implies, *Homage to Metallica* was written with a direct reference to heavy-metal and death-metal music in mind. It was written to include some of the thick textures typical of the death-metal genre, with gigantic block orchestral tutti chords at the opening and closing of the piece. It also features an amplified $1/8^{th}$ – sized violin solo in the work's second half. In this mini-violin concerto, conscious references were made to the virtuosity of heavy-metal and death-metal music, with an attempt to incorporate some of its typical harmonic and rhythmic progressions into the orchestral part.

The title *AK-47* hints at aggressive content, and a significant part of this piece for piano with optional electronic bass drum fits this description. The majority of *AK-47* does not feature any musical gestures directly relatable to popular music, although some of the repetitive structures correspond to those used in *Chrissietina's Magic Fantasy*. One element, however, is the use of electronic bass drum. It enters about half-way through the piece, as if commenting on the machine-gun-like repetitive semiquaver chords in the piano part. It then is transformed into a continuous crotchet ostinato pattern, directly reminiscent of the thumping bass drum patterns of techno music. The piano part mutates accordingly into a section often described by listeners as "that '70s disco tune". The stylistic incongruity between the piano writing in different parts of *AK-47* does have a programmatic purpose,

depicting the shell-shocked reminscence of a 19-year old Bosnian freedom fighter. It also is indicative of the change in direction that my own music was undergoing.

In general, my main areas of popular music inspiration at this time were equally divided between the techno and death-metal genres. This changed in 1995 when I found that after composing *Homage to Metallica*, *AK-47*, as well as other works such as *Believe in Yourself* (1994) and *SCUD* (1995), that death-metal was a less fruitful launching point for future musical exploration than techno. The main reasons for this decision were that it became more difficult to circumvent the reliance of death-metal on extreme textural and timbral density when dealing with more traditional 'classical' forms and instrumentations. The stereotypical harmonic structures of death-metal music are built on a much smaller core set of progressions than say, techno music, and so I found myself being drawn closer and closer towards the musical concepts explored in this techno genre. Death metal is also heavily reliant on recording technology such as distortion pedals to achieve its desired outcome, and this is difficult to implement in acoustic music without the result ending up sounding the same, or at least, incompatible.

I did not abandon concepts derived from death-metal music in future works. *Death Stench* (1996) and *The Rage Within* (1997 revised 1999) to some extent employ these concepts. However the degree is now substantially diminished in comparison to works such as *Homage to Metallica*.

Chapter 4: *Speed* and *RPM*

The techno genre as a musical foundation next appeared most strongly in the orchestral work, *Speed* (1995) This piece was commissioned by the Tasmanian Symphony Orchestra as a result of *Homage to Metallica* being a selected work of the Symphony Australia score-reading panel.

Speed was another step in the progression towards the increased integration of elements and gestures found in techno music into a classical music context. The availability of an orchestra as the performing media considerably expanded the possibilities of tonal and textural contrast, as opposed to *Chrissietina's Magic Fantasy* where there were only two violins. I was not aware of any other composer having attempted to write a work significantly utilizing techno techniques for orchestra, and this added to its appeal[3].

A significant compositional opportunity such as writing for the Tasmanian Symphony Orchestra meant that I was forced to evaluate and analyse several of the characteristics of techno music in a detailed way, and then assess whether each of these would be able to be suitably translated into a work for orchestra. This was done in a generally rather than systematically, that is, by to large numbers of techno and dance-related pieces on radio and on CD and consequently refining generalized concepts of the genre.

Another consideration in writing this work was the fact that I was, in essence, using characteristics from a purely pre-recorded medium and utilizing them in the acoustic domain[4]. This necessitated several strategies. Any balance issues are easily fixed in a recording by changing the level. Similarly, the fullness of sound can be influenced by judicious employment of chorus effects, or stereo panning. These were more difficult to achieve with acoustic instruments, and had to be attempted via orchestration. There was some possibility

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[3] I have since heard the music found on American composer Todd Levin's CD *de Luxe* (1996), which is perhaps the most similar to my own that I have yet encountered, though he seems to use 1970s disco as his starting point rather than techno.

[4] Death-metal music is generally performed live by bands as well as being recorded, whilst techno music is reproduced only from CD or vinyl record. Some bands such as PSX in Melbourne sometimes perform along with backing tracks, but these performances are less common than a straight reproduction from CD in a club.

of balance adjustment during the rehearsal process, but compared to working in a studio, this was minimal.

Some allowances were made to the the original recorded nature of the sound. For example, a MIDI drum kit was specified for the percussion section as opposed to an acoustic drum kit. This was a successful innovation as it allowed the percussion player to play the drum kit with as much passion and verve as the music dictated, without submerging the rest of the orchestra in an unfocussed wash of sound.

Structurally, the work used a similar overall structure to that of *Chrissietina's Magic Fantasy*, though with extended sections to cater for the larger colouristic opportunities that were available.

Speed also used some techno-style gestures and harmonizations. Typical of techno music is a melodic line being harmonized in consecutive major triads. [GIVE EXAMPLES?]

It is also important to emphasize that whilst *Speed* was to an extent an attempt to write a techno piece for orchestra, there are material differences. *Speed* is no more a piece of pure techno that William Orbit's arrangement of Samuel Barber's *Adagio* is a piece of contemporary classical music[5]. Apart from obvious immediate differences such as acoustic vs. electronic instrumentations, structurally the stereotypical structural notion of achieving contrast through omission in techno (for example, there may be one 8 bar phrase repeated, then repeated once more with the bass part omitted) is not as successful when played in a concert situation. Without the benefit of extreme volumes and mega-bass settings amplified via graphic equalizers, the sense of the pounding bass drum crotchets is more difficult to achieve, and similarly an orchestra's bass section will struggle to match the rest of the orchestra with the ease of a synthesized bass in a well-produced techno mix.

The attempts to solve these problems can in fact have a liberating effect on the music itself . The fact that *Speed* is not a dance piece means that contemporary musical techniques can be employed without a problem as compared to the dance-orientated necessities of techno. It is much easier to play with the sense of 'beat' rather than have to be concerned over a constant

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[5] [GIVE REFERENCE TO THIS RECORDING]

beat. Listeners are more attuned to subtleties of instrumental colour, particularly as acoustic instruments are inherently richer in sound than electronically produced ones.

[SHOULD I GIVE MORE ANALYTICAL DETAIL HERE ABOUT SPEED?]

Following *Speed*, the next major orchestral work was *Rave-Elation*, in which I further experimented with concepts from techno music. This work was written for double chamber orchestra, and was commissioned by the Youth Music Australia for Camerata Australia and Camerata Scotland. It was performed around Australia and the U.K.

Both the Camerata Australia and Camerata Scotland were composed of young instrumentalists under the age of 25. It then again seemed fitting that a work written for young adults to perform should make some reference to an aspect of culture particular to their age group, i.e. techno music and the 'rave' scene. The fact that there were two separate ensembles within the one group also led to the opportunity to write antiphonal techniques, and experiment to a limited degree with panning techniques used in techno music (especially melodic fragmentation across the left and right channels).

Other shorter works such as the orchestral work *RPM* (1997) further extrapolated some of the ideas experimented with in the previously larger-scale works as *Speed* and *Rave-Elation.* Commissioned by the Sydney Symphony Orchestra, the brief given to me for *RPM* was that it was to be performed for the Year 7-8 concerts given by the Sydney Sinfonia, a subset of the SSO. Again, the opportunity to write for young people, this time as an audience, was an aspect that greatly interested me.

One of the important starting points behind this work was that I was acutely aware of the typical attention span of Year 7 and Year 8 students, having taught them at MLC School. This does not to imply that I set out to deliberately 'dumb the piece down', before I had started. In fact, quite the opposite – I was not interested in writing a cutesy, 'kiddies' work – and I doubt that the SSO were interested in this, either. Instead, I undertook to compose an energetic work largely in the style of an extended fanfare that would grab their attention and maintain it until the end of the piece.

The external musical stylistic influences on *RPM* were a combination of rock music and some of the techno aspects developed in earlier pieces. The continuous quaver pulse throughout *RPM* is further complemented by a strong crotchet beat in the outer enclosing sections that delineate the main melodic motive, itself a simple set of repeated crotchets covering four bars [GIVE BAR NUMBER]. Towards the end of *RPM* there is a trumpet solo, conceived to be performed much in the manner of an electric guitar solo in a rock piece [GIVE BAR NUMBER]. Continuing the influence of rock and roll music is the percussion writing, including having the percussionists improvise fills to add to climactic moments. A specialist drum-kit player is needed to play the part. Unlike rock music, however, the kit writing in *RPM* is fully notated (apart from fills), and the general construction of the piece is not based around the stereotypical verse-chorus structure of a rock song.

RPM therefore offered me the opportunity to distil some of the larger-scale realisations of the techno/popular music crossover into a much shorter piece. The condensed nature of *RPM* meant that as well as being very performable, it was a more compact exploration of the musical concepts found in popular music.

[MORE NEEDED? OR SHOULD I CUT THIS DOWN HEAPS AND JUST SPEAK BRIEFLY ABOUT RPM, MENTIONING IT 'IN PASSING', AND OMITTING IT FROM THE FOLIO ALTOGETHER? IT'S PROBABLY NOT 100% NECESSARY, THOUGH IT DOES REPRESENT AN EXAMPLE OF A PIECE INFLUENCED BY ROCK/POP, NOT TECHNO (VARIETY)]

Chapter 5: *Techno-Logic*

In the mid- to second half of 1997, I was commissioned to write a string quartet for the Elektra String Quartet.

This was the first large-scale string quartet that I had undertaken. An earlier work, *Head Over* (1991), was my only other prior attempt at writing for string quartet[6] excluding juvenilia. Being a string player, I was acutely aware of the long history of string quartets in Western art music. This caused some degree of deliberation as, rightly or wrongly, I began to consider the many masterworks that had been written before me – everything from Haydn and Mozart quartets right up to Lutoslawski and Sculthorpe works.

I was intensely contemplating whether the direction that my compositional influences were taking, that is, of techno music, were suitable for the string quartet idiom.

One deciding factor was that the work was being composed for performance by the Elektra String Quartet. The Elektra String Quartet did not perform repertoire from the standard repertoire, but rather music from the late twentieth century. Its musical and artistic director, Romano Crevici, enthused over the possibility of including some popular music influences. He suggested that I write a piece called "Techno-Logic", the title of which may hint to the fact that the quartet was interested in using technology such as samplers and effects pedals in this work.

Techno-Logic (1997) consequently became an important piece in the scheme of my repertoire as in it I decided to completely immerse myself in the techno genre, a process commenced in *Speed*. The result of this immersion was that for two of the five movements, I chose two existing techno pieces, took them apart, and then put them back together again with my own substituted material. I therefore decided to import as many aspects of the techno pieces as possible into the classical, predominantly acoustic domain. Personally this represented the consummation of my increasing interesting in popular styles of music and their translation in the Western art music tradition.

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[6] I now consider *Head Over* to be unsuccessful and have withdrawn the piece.

Later I revised and arranged part of this work for string orchestra. The first and second movements of the string quartet became *technologic 1-2*. It is worth mentioning some aspects about the process of composition as well as my basis for the fundamentals of techno music.

The piece of techno music used in as the model for the second movement of *technologic 1-2* (hereafter referred to as *technologic 2*) was *Turn on the Music*, by S. Imrei and J. O'Halloran[7]. The performing medium in the *Turn on the Music* is very different to a string quartet. *Turn on the Music* contains several different instrumental layers, including drum and vocal samples. There are no obvious string sounds. Digital effects such as delay, flange, reverberation and compression are also significantly employed, both to create the original sounds as well as to alter the effect of the sounds being mixed together. It is not possible for a string orchestra in live performance to recreate these sounds exactly, and it is difficult to achieve the effect of them to a vague extent. The realities of real-time performance dictate strong against their implementation.

The above description of *Turn on the Music* provides an accurate summary of many of the characteristics of techno music in general.

Techno music is generally constructed on a computer using layers or blocks of sound. Percussion is present in every piece. Looped drum tracks, often samples taken from a sample CD, are then time-stretched (if necessary) to fit the required tempo. Most typically a bass drum plays every crotchet beat, with hi-hats playing a closed-semiquaver, closed-semiquaver, open-quaver pattern above this. There may or may not be a snare drum playing as well, reinforcing the 2nd and 4th crotchets in the 4/4 bar. The time signature is always 4/4, and phrases tend to occur in 1, 2, 4 or 8 bar patterns. Other instruments such as tambourines can be involved playing a cross-rhythm within the 4/4 bar structure.

Translating the percussion writing of techno music into ensembles that don't have percussion is an important point. In all works in which this has been the case I have found it very important to replicate some of the rhythmic patterns typically found in techno music into the inner parts of a passage.

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[7] S. Imrei, J. OHalloran: *Turn on the Music*, Polygram Music, 1991.

An example of such a rhythmic function occurs as bar [BAR NO] in *technologic 2*. [FIND A PASSAGE THAT DOES THIS, AND DESCRIBE IT-BUILDING UP OF LAYERS OF DIFFERENT RHYTHMIC FIGURES ALL INTERLOCKING – MAYBE MAIN TUTTI SECTION – CONTINUOUS SEMIQUAVER PULSE]. The effect of this is to create a driving sense of momentum in the same way as the percussion (kit) in a piece of popular music.

The use of percussion in *technologic 1-2* relates to the notion of keeping a constant pulse throughout the piece. The two matching percussion instruments play a continuous quaver pattern, acting as a type of click track. More complicated rhythmic patterns are left up to the string players rather than allocated to any percussion instruments.

As in most forms of popular music, techno is characterised by a strong repeated bassline. Occasionally a sub-bass sound is invoked by transposing a bassline to sound an octave lower.

The bassline in *Turn on the Music* is a predominantly one-bar, three note pattern. These characteristics were also used in *technologic 2*, as can be seen in the double bass part at BAR NO.

Another typical gesture of techno music is the 'stabbing' piano. Most often found in techno works from the early 1990s, piano are applied playing riffs with cross-rhythmic figures between left and right hands, and employing a variety of minor 7ths chord progressions. Such a gesture occurs twice in *Turn on the Music*.

In *technologic 2* this cross-rhythmic pattern was imitated at bars 70-73 by the solo strings. Obviously solo strings cannot have the same level of syncronicity as a single, quantized piano rhythm.

Melodic material and treatment varies from piece to piece. Some works employ anthemic synthesized "Clarion" sounds (EXAMPLE OF PIECE), whilst others rely on a melange of disparate synthesized sounds (EXAMPLE). Vocal samples may also be used. These may take the form of a short spoken fragment that is repeated ("turn on the music" in *Turn on the Music*) or alternatively, a longer sampled text block (such as the fictitious interview between a

policeman and a dead boy's father (*Mr Kirk's Nightmare*), These longer fragments may be deconstructed and re-used as shorter fragments later in the same piece.

Obviously there is no scope for such use of vocal material in a work for string orchestra. As such, this was one area that did not survive the translation process across the works.

In addition, synthesized pad sounds are often used to fill out the middle register of a song (EXAMPLE). These may be slow-moving patterns that mirror the harmonic changes of a passage of music, or these may be arpeggiated across several octaves in semiquavers. These are more common to other techno variants such as trance rather than pure techno itself.

Such arpeggiation has been included at various stages of the *technologic 2*, including in the BAR NO, where an F#7 chord is outlined between the divided Violin I parts.

As most of these sounds and structures are created in the digital domain, digital effects (applied through the use of external effects units or else directly inside the computer via software) are used to alter the sound. Typical is a manipulation of cutoff filters applied to small sections and motives or to entire sections of a mix. The effect of this is to gradually accentuate or diminish the upper frequencies of a sound. A similar acoustic effect may be to go from *sul tasto* to *sul ponticello* on a string instrument, though the electronic cutoff can achieve this effect to a much greater extent.

Such timbral contrasts have been achieved in technologic 2 though the juxtaposition of solo and tutti passages.

Harmonically, techno is almost exclusively triadic in content. Deviations from this paradigm are uncommon. Furthermore, chord changes are often in strict parallel motion rather than obeying voice-leading rules. The use of parallel triads also extends to melodic figurations in techno music, to the extent that melody is just set of parallel triads (*Are You Ready for This* is the most well-known example).

Harmony often delineates structure in techno music. Contrast is created between adjacent sections of music through changes in tonality or modality. There is a use of this in *Turn on*

the Music with flattened second chords forming the harmonic basis of some sections, as well as modulation to the subdominant.

In technologic 2, the overall key centre based on F#. There is use of the mixolydian mode, typical in much popular music.

The five different sections in technologic 2 are marked by their contrasting harmonic centres: F# mixolydian, E mixolydian, A major, A and E major simultaneously and D major are all employed throughout the movement. [GIVE BAR NUMBERS WHERE THESE OCCUR]

Rhythmically, techno has several typical features, some of which have already been described in relation to the percussion and piano parts. The continuous bass drum crotchets as described above are certainly a very common feature. The beat remains constant for the entire piece. Above this, cross-rhythmic patterns are placed in several instruments, though most usually in the percussion. As techno is constructed on a computer, quantization means that it is all very exactly played, with syncopations working off one other with amazing precision. The combination of these rhythmic figures together with the fast tempi employed (always above ♩=120) results momentum and drive. Small scale rhythms are based around quavers and dotted quaver values.

The continuous bass drum crotchets were not utilized in *technologic 2* (though they have been in other works such as *Speed* and *Rave-Elation*). The tempo marking of ♩=144 of technologic 2 is in the same region as the tempo in *Turn on the Music*, which is ♩=132. The extensive use of cross-rhythms generated between parts has been described above in relation to the percussion parts. Other examples of this linking together include BAR NO and BAR NO. It can also be observed that the majority of rhythmic figures are based upon quaver or dotted quaver note values. Examples of this include [GIVE EXAMPLES FROM THE BOOK].

Repetition of motives or phrases is also an important factor. Whilst this superficially appears to bear some resemblance to minimalism, it is different in that change is not generally achieved through the gradual change of elements, but rather though the direct juxtaposition of totally different material, or else through the addition or subtraction of layers of sound. Textural and/or orchestrational change is the typical means by which contrast is achieved. Notions of motivic development common to much Western art music are rare.

Repetition of one bar phrases is the dominant paradigm. Phrases generally cover 1, 2, 4 or 8 phrases. In a typical 8 bar pattern, bars 1, 2, 3, 5, 6 and 7 may be repeated verbatim, with bars 4 and 8 being different.

Motives created in *technologic 2* were written using structures and characteristics of the motives found in GIVE TITLE OF PIECE. The list of main motives used in technologic 2 are as follows:

INSERT EXAMPLE HERE, MAKE SURE I GIVE THE CORRESPONDING BAR NUMBERS

These motives are used extensively, and repetitively, thoughout the *technologic 2*. One important difference however between TITLE OF PIECE and technologic 2 is that motives are often changed in some way (i.e. through orchestration or pitch displacement) when they occur later in the piece, as opposed to just being repeated literally as occurs in TITLE OF PIECE. This difference was included to account to some degree for the fact that the piece is being listened to as a concert piece rather than danced to.

Through consideration of the above description of techno music, it is not difficult to ascertain some of the problems that I encountered when translating such musical aspects across musical genres as in *technologic 2*. For a start, the music needs to be realised acoustically by a multitude of musicians. None of these musicians is linked electronically via timecode, although there is a conductor who can provide a similar service in the case of a work for string orchestra. Digital effects such as the cutoff are problematic to replicate. They will not work anywhere near as well in live performance as on recording. The clarity of sound that is possible through effective production and mastering of a pre-recorded track is likely to be very difficult to replicate in acoustic performance. Instrumentation and balance are similar concerns. In a string orchestra there are not the access to the instruments that provide so much of the rhythmic drive to techno, and even if there were, balance would be a problem, especially when performed at the fast tempos typical of this genre.

Chapter 6: Post *Techno-Logic*

I was generally happy with *Techno-Logic*, although there were significant difficulties in performance by the Elektra String Quartet [8].   The next pressing issue was that after successfully establishing this compositional process, would or should the next new work follow the same process? On one level this was tempting as *Techno-Logic* and its arranged variants, *technologic 1-2* and *technologic 145*(1998), were successful works.

Thus in my next work *n-trance* (1998) for harp (which became *Velvet* (1998) for two guitars), I attempted to use similar deconstruction-reconstruction techniques with a piece of trance music[9]. However due to the very different nature of the performing media (solo harp as opposed to multi-layered electronics), it was not possible to achieve the level of synergy as was the case between TECHNO SONG TITLE and *technologic 1-2*.

In essence, I realised that the attempt to achieve a high level of syncronicity between techno and 'classical' music would not be sustainable for every piece. The deconstruction-reconstruction process of one piece of techno gave me a solid understanding of its production. This knowledge was enough to create new pieces using more of techno's musical concepts rather than using more techno pieces as models.

It should be noted that whilst the influence of techno music was very strong in a number of works written during this period, it was not all-pervasive. Some other works utilized aspects of other popular music styles to less-intensive degrees. *Night Pieces* (1998) is an example of this. Originally for oboe and piano (later arranged for soprano saxophone and piano), *Night Pieces* is constructed in two movements. The first movement, "Night Song" was written as a short, slow, flowing introductory piece. Only two minutes in length, it is more reminiscent of the performance style of Kenny Gee than any techno piece.

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[8] I believe that this was more due to the quartet's technical proficiencies rather than deficiencies in the music itself.

[9] Trance music is a variant of techno, differentiated by its smoother textures, generally slower tempi, decreased reliance on repeated bass-drum crotchets and use of pad sounds delineating harmonic changes every two bars, these harmonic changes being typically parallel chords constructed of 2nds and 3rds, moving by step.

The second movement, "Night Dance", does not take as its starting point dance music of the modern-day club, as one might infer from its title. Instead I wrote this piece with a slight notion of Arabic music, particularly the image of a belly dancer.

The influence of Arabic music could be further extrapolated by the use of quarter-tones throughout the piece. I had always wanted to write a work that used quarter-tones in a modal way. "Night Dance" uses quarter-tones as a form of ornamentation, but also fully integrated into the character of the piece. The structure of "Night Dance", a set of slowly accelerating sections bookcased by fanfare-like proclamations, is further meant to elucidate the physical, sensual nature of the quarter-tone-induced harmony.

Other works written around this time included *Yandarra* (1998) for double bass and piano, *Jungle Fever* (1998) for french horn and piano (later arranged for tenor saxophone and piano as well as cello and piano), *Ignition: Positive* (1998) for trumpet and piano and *Love Serenade* (1998) for bassoon and piano. Of these works, *Ignition: Positive* most obviously displays the greatest number of characteristics common to other techno-influenced works in my catalogue. The other works do demonstrate some degree of similarity, such in the choices of harmonic progressions or motivic rhythmic construction, but are signficantly less obvious in the way that these are used.

The happy effect of writing such different works in close proximity to the composition of both *Speed* and *Techno-Logic* was to enable my musical tastes to broaden, and aoided becoming stuck in a rut writing directly-derived techno pieces. On the creative level, the option of merely re-constructing previously composed works would not have been a fulfilling long-term proposition.

Another factor in the decision to broaden musical influences included that fact that I was increasing being commissioned to write music for young people to perform. The technical standard of high school performers can be excellent, but is nowhere near the level of sophistication of professional performers. In spite of boundless enthusiasm, less advanced players are unlikely to achieve the level of rhythmic precision so necessary to maintain momentum.

π (1999) and *Velvet Dreams* (1999) are both good examples of such works. π was commissioned by the Australian Society for Music Education for their 1999 conference. It was written for the possibility of performance by an excellent school choir, along with three percussion parts and piano. *Velvet Dreams* is scored for massed choir and orchestra, and was commissioned by the NSW Performing Arts Unit. The pragmatic background to *Velvet Dreams* was that the high-school students learnt the piece in their own school, then came from all around NSW for an afternoon rehearsal, performing the piece that evening. A total of one-hour's worth of combined rehearsal meant that the intricacies of a rhythmically detailed piece of pure quasi-techno would not have worked. Other strategies such as limiting motivic and rhythmic gestures and utilizing easily-remembered figures helped to achieve a positive result.

Chapter 7: *Rush*

In the middle of 1998 I was commissioned by Musica Viva Australia to write a work for their 1999 season. The work was to be scored for guitar and string quartet, of duration approximately ten minutes, and to be performed by Slava Grigoryan (guitar) and the Golder String Quartet.

This was again an opportunity to write a work for absolutely top-class performers. Slava Grigoryan had been promoted extensively as one of Australia's best young artists, and his level of musicality demonstrated in recordings was indisputable. Similarly the Goldner String Quartet were artists that I had particularly admired for a long period of time. The lead violinist, Dene Olding, performed one of the solo violin parts in an unforgettably moving performance of Arvo Part's *Tabula Rasa* some years before at the University of Sydney. I had witnessed many brilliant performances given by the Goldner String Quartet including a memorably committed performance of a late Beethoven quartet that left me in no doubt as to these performers' abilities.

The composition of *Rush* commenced not long after the completion of π and *Velvet Dreams*. With such outstanding performers I was again able to increase the level of virtuosity available. One of the other requirements mentioned by Musica Viva was that the piece was to finish a long programme, directly following Boccherini guitar quintet. Thus I was requested to write a work "to wake the old ladies up". Happily this correlated to the sort of music that I was interested in writing.

The difficulties that I had encountered with writing a string quartet in terms of the weight of tradition have been mentioned in relation to *Techno-Logic*. To some extent this was exacerbated before the writing of *Rush* as the Goldner String Quartet were an established quartet, and brilliant performers. As opposed to *Techno-Logic*, my solution was not to re-constitute an existing work, but rather extend some of the techniques explored in other works and integrate them into this new piece. A one-movement work of ten minutes required such an avenue of further development.

The beginning of *Rush* does not have that much to do with techno music at all, apart from the notion of a constant pulse. This opening section functions as a large introductory passage

based around the canon and/or quasi-canonic of small 3-quaver and 2-quaver cells, and the slow exploration of a harmonic progression that covers the entire passage. This relates to *The First Circle* by Pat Metheny, in which additive rhythmic figures constructed of groups of 2 and 3 quavers are clapped at the beginning of the piece, establishing the rhythmic basis of the majority of the material that follows. The use of 3-quaver and 2-quaver patterns functions in a similar way in *Rush*, being an augmentation of some of the 3-semiquaver and 2-semiquaver units used later in the piece.

The opening harmonic progression finally 'resolves' to repeated Es, mutating into a cross-rhythmic figure at bar 67 between the guitar and 2nd violin parts, paving the way for the entry of the piece's main motivic figure in the viola part at bar 71. The figure betrays its techno origins in a number of ways, particularly in terms of repetition within its four-bar length, rhythmic construction and the way that it outlines a simple harmonic area, almost a dominant seventh. The first tutti statement of this theme at bar 89 continues this, with harmonic change occurring only in the last bar of the four-bar pattern.

Indeed much of *Rush* is harmonically constant, based strongly around an E tonal centre. Timbral and textural changes are relied upon more than small-scale harmonic changes to create contrast.

The sectional nature of much of this piece also relates strongly to the techno music model as expounded in *technologic 1-2*. Devices such as a reduction in timbre accompanied by a movement in harmonic centre down a tone (such as at bars 118-121 and bars 130-137) are employed. In contrast to an earlier work such as *Speed*, this general harmonic constancy is more reminiscent of techno music. There is also increased textural and timbral variety between adjacent sections than in *Speed*.

A pattern of increasing developed sections interrupted by smaller interjections is established in the middle section of *Rush*, covering the material from bars 106 to 251. In the second half of this section the main motivic development is undermined by a *moto perpetuo* idea that has so far been used primarily as accompaniment (for example the Violin I arpeggiations at bar 122 ff). This mutation assumes the form of a series of overlapping descending scales that emerge from each of the parts, reaching their most obvious statement at bar 214. This idea is derived from similar processes used by Arvo Part, and perhaps I was subconsciously

influenced by the abovementioned performance by Dene Olding in my choice of this material. In any case, it complements the arpeggiated nature of the main motive that is explored in the surrounding parts of the piece.

The final main section of *Rush* starts from bar 257 and functions as an accelerando in tempo and mood *al fine*. Again, musical derivations from the techno genre can be observed throughout this section, such as the consecutive major triads in the melodic parts of bars 257-274 and interlocking counter-rhythms at bar 297.

In spite of the obvious heritage of many of the musical elements used in *Rush*, there is certainly a larger palette of musical features throughout the piece. This becomes an increasingly noticeable trait of compositions written post-*Techno Logic*.

Chapter 8: Attachment with the Sydney Symphony Orchestra (Part I)

One of the major aims of any composer is to obtain good performances of their own works, and one way to achieve this is to build valuable relationships with performers. Through the composition of works such as *RPM* and the performance of *Homage to Metallica* in 1997, I was fortunate enough to have built up such a relationship with the Sydney Symphony Orchestra. This culminated with a composer attachment for six months in 1999.

As part of this attachment, I was expected to composed three main pieces. Firstly, the orchestra was to perform *Siegfried* in 1999. As part of these performances, I was asked to write a set of three short pieces that could function as 'interval calls' to this opera, which used specific sub-groups of the orchestra.

These three interval calls became the three *Siegfried Interludes*. In the tradition of such works, themes and motives were taken from *Siegfried* and planted into a new context. The first of these was for brass group, and featured themes from Acts I and II of *Siegfried* which were then taken and transformed into what was described as "Siegfried meets Mission Impossible". The second piece was written for wind octet, and featured two motives, Siegfried's "Nothung! Nothung! Neidliches Schwert!" call from Act II as well as the Woodbird's theme. These themes were significantly transformed in this second Interlude, to the point that they were less recognizable. The third Interlude was written for three percussionists, and was subtitled "Metal Chorus" in a reference to the famous Anvil Chorus, as well as Siegfried's forging of the Sword. The instruments used in this work were all metallic percussion instruments – anvils, crotales and tuned cowbells.

The process of composing these works was engaging in that the process of transformation of material written centuries ago into a musical style applicable today was a rewarding one. [10]

The next piece as part of the attachment was *Boom-Box*. This work was written specifically for the Education Programme, in the same way as *RPM*. However this time the audience was to be children from Kindergarten to Year 2. Another suggested focus by the SSO Education

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[10] This process was again taken into consideration with the composition of *The Rave and the Nightingale* in 2001.

was that the work features percussion in some form, as the other instrumental sections of the orchestra were being highlighted in other works on the programme.

The end result was that I aimed to include many instrumental colours in the work. These included the use of a reasonably large number of percussion instruments shared amongst the three percussionists, including some 'novelty' percussion such as flexatones and sirens. There were a number of extended instrumental techniques used in a similar way with other non-percussion instruments such as clarinet glissandi, timbre-trills,   The aim was to maximise orchestral colour and to produce an energetic and vibrant work that could capture and hold the shorter attention spans of these young children.

Boom-Box is motivically based around a small number of ideas, given most emphatically at the opening and conclusions of the piece where the main motive is stated *ff* in large orchestral tuttis. In terms of the the work's discernable influences, the idea of repeated motives and bars as found in techno music is employed in some sections of this four-minute work. Certain rhythmic figures can be directly traced back to earlier works such as *Techno Logic*. The middle section uses a number of instrumental gestures that may be reminiscent of lounge music (such as the 'swooning' strings in octaves, a shaker playing constant semiquavers, and luscious marimba chords). However the percussion writing of Xenakis (as found in *Idmen* for choir and percussion) was also influential, so much so that it was acknowledged in the score with the indication "Xenakis-like" given to the percussionists in one part of the score. The end result is that the piece is much more broad in its outlook that earlier works such as *Speed* and *technologic 1-2*, and this is a feature that is continuing to develop. [I WASN'T INTENDING TO INCLUDE BOOM-BOX IN THE FOLIO OR CD, THOUGH MAYBE I SHOULD AS I HAVE WRITTEN ABOUT IT]

Chapter 9: Attachment with the Sydney Symphony Orchestra (Part II) - *In Memoriam*

The third major work that was to be written as part of the SSO composer attachment was a concerto of some description. Initially the brief was to write a work of about 10 minutes, possibly for a wind instrument. Indeed, a short work for cor anglais and orchestra was suggested.

The other consideration outlined was that the work was to lie "outside the composer's usual idiom". Initially this struck me as peculiar. Typically, a commissioner wants to have some idea about what you'll produce. However it was a gratifying experience to be able to be given the chance to experiment, even if it was in the confines and presentation of a formal concert series.

In Memoriam was composed over two main segments of time. The first movement, "Lament", was completed in its initial form in 1999, the second movement, "Celebration", in 2000.

The choice of cello as the solo instrument eventuated from the rehearsals of *Speed* by the SSO in September 1999. Nathan Waks was the principal cellist for that concert, and I was aware of his outstanding ability and reputation when it came to new music.

During the rehearsals, Waks consistently demonstrated his interest in the work, and ended up acting as a conduit between myself and the conductor, making sure that the orchestra was playing the piece as it had been intended. During a break he mentioned that I should do a cello concerto one day, "amplified with lots of wacky effects pedals". The idea immediately appealed, particularly if there was the opportunity for Waks to play the solo part.

The idea of a string concerto sat more comfortably than a concerto for a wind or brass instrument. My heritage is as a string player (violin and viola), and I felt comfortable writing for strings[11]. The greater range of tonal expression that could be achieved though a string instrument in addition to the possibility of amplification produced many initial ideas. It also

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[11] This has continued through other works such as the *Violin Concerto* (2000) and *The Rave and the Nightingale*, which is a work for string quartet and string orchestra.

allowed the possibility of writing a longer work, with the possibility of increased number of future performances than say, a cor anglais or french horn concerto.

The issue of composing a work "outside my usual idiom" did produce some concern and soul-searching. In the end I decided that the fact that I had never written a concerto before was in fact a very new exploration in itself. There are a large number of considerations to deal with when writing a concerto, meaning that there were bound to be many new aspects in this work. My interpretation of this directive therefore applied to technical issues rather than stylistic ones.

Amplification was also an issue. As mentioned above, Waks was very keen on having the cello part amplified for this piece. There were some obvious advantages to amplifying the instrument, in particular to artificially correct any balance problems with the cello in opposition to the orchestra. The middle register of the cello could be used more extensively than might otherwise be the case.

However there was concern over changes in tone. The sonic result transmitted to the audience may be vastly different depending on which amplification equipment is employed by the sound engineers[12].

A decision was thus made that this concerto was going to be for amplified cello and orchestra, not cello that was amplified with orchestra. Whilst I wanted a cello to be the performing media, this decision meant that I would be able to integrate what I imagined to be the altered tone due to amplification into the composition. This also influenced the choice of some extended natural timbral techniques that were employed in the solo part, as well as the use of effects pedals in some sections of the work[13].

On a general level, some comments about amplification are relevant here. In *In Memoriam* I decided that the amplification was allowed to affect the tone of the soloist. In other works,

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[12] For the performance of this piece we decided to use a Fishman contact microphone that plugged into the bridge of the instrument. Waks had to alter his playing style somewhat as this microphone tended to favour certain strings.

[13] It will be noted that effects pedals have largely been employed in sections of the piece in which the cello plays solo (for example, the cadenza of "Celebration"), or with reasonably minimal accompaniment (before the Cor Anglais Solo of "Lament"). This was because I felt that they could be best used to enhance the sound of the amplified cello itself, that is, when there are not many orchestral instruments playing to reduce the audibility of such effects.

such as the *Violin Concerto* and *The Rave and the Nightingale*, amplification is employed purely to beef up the volume of the soloist(s), changing the tone as little as possible.

Over the past 50 years, amplification systems, including microphones, have increased in sophistication and quality. When the *Violin Concerto* was performed in the concert hall of the Sydney Opera House, a small non-contact microphone was placed underneath the bridge of the instrument. The aim of this amplification was to sonically boost the loudness of the soloist, not to alter her tone. The combination of a very high quality microphone and sound system, as well as excellent sound engineering, meant that consistent tone was achieved to the extent that many audience members asked if she was amplified at all.

It seems logical that over the next period of time, the quality of amplification systems available in concert halls is going to increase, not decrease. Therefore, the excellent sound quality that is currently available will most likely continue (or improve) in the future. This leads me to the belief that there will be an increased number of concertos written for amplified instruments imminent.[14]

A colleague remarked that he would not use amplification in a concerto with orchestra, but rather "would write the work properly so that it does not need amplification". This is a valid point. However, I countered with the argument that much of my musical style depends on loud, vigorous and often thick textures, aiming to impart high energy levels. In order to write a work for an solo instrument that often experiences balance problems in concertos, whilst not significantly altering my musical style, then amplification was a valid option to pursue.

So with these general issues considered, the nature of the piece was then approached. The cello has always been an instrument that I associated with great expressive possibilities. I had previously written or arranged works for cello and piano, including *Lament* (1996), *Love Serenade* (1998) and *Jungle Fever* (1998). *Techno Logic* and its variants, *technologic 1-2* and *technologic 145*, also featured the expressive nature of the cello in some of their movements.

It was therefore important that I focussed on a subject matter that I felt would enable me to express such emotions in a piece. *In Memoriam* is dedicated to two of my cousins, Hargaret

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[14] As the tone quality is largely dependent on equipment used, it will be interesting to consider how amplification is approached in the distant future, with regard to works that are composed with today's equipment in mind. Perhaps this will form part of performance practice research of the future?

Davis and Robert Hopkins, who died suddenly. They were both about my age when they died, making it all the more relevant.

I aimed to include a wide range of emotions in the piece that were applicable to those experienced when confronted by, and the remembrance of, a loved one. These include anger, desolation, mourning, lamentation and acceptance. In order to not be entirely morbid, the second movement was composed based on the idea of a celebration, that is, remembering the more joyful times shared together during the departed's life.

Lament

Whilst the major part of this introductory essay has explored the use of popular music elements within my music, I have mentioned other works in which such influences are very much diluted, if present at all.

To a large extent, the "Lament" movement of *In Memoriam* is representative of this. The obvious links between this movement and works such as the second movement of *technologic 1-2* are tenuous, perhaps related more to the sense of extroversion and 'in your face' gesture rather than any technical or analytical concepts.

[GIVE BAR NUMBERS THROUGHOUT THIS SECTION TO THE EXAMPLES TO WHICH I REFER]

The starting point to this movement, as mentioned above, was the consideration of some of the emotions experienced after hearing of the death of a loved one. Thus the work begins angrily, with a disjunct melody in the strings that later forms the basis of the initial solo cello entry. The first gesture played by the cello, the naturally-distorted 'noise' figure, serves both as a 'wake-up' call as well as playing with the audience's expectations of what a cello normally sounds like. The amplification of the cello serves to reinforce this.[15]

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[15] In writing such a gesture, I was aware of a story related by Peter Sculthorpe about a performance of his *Piano Concerto* by pianist Tony Fogg. Apparently Fogg complained to Sculthorpe about the somewhat-innocuous nature of the initial entry of the soloist in the work, stating that he didn't consider it appropriate for a concerto. Hence the very aggressive and pointed entry of the cello in *In Memoriam*.

The opening introductory section of "Lament" works largely in extremes of register in the cello part, and moving between them. In this way I endeavoured to write the cello part possibly in a similar way to how one might find a solo line in an 'acoustic' concerto – cutting and distinctive – whilst being further aided by the amplification. The orchestra part is full, to the extent that towards the end of this section it becomes difficult to hear the cello, even with the aid of amplification.

The end of this section, in which the cello plays a scale run up to a chord at the exteme top of its range, certainly would not have been possible to achieve successfully without amplification. The distinctiveness of the instrument's character at this part of its range would have been tremendously difficult to replicate at any soloistic dynamic without being artificially increased. It also allows the performer to concentrate on the dramatic qualities inherent in the gesture rather than necessarily worry about tone projection. This was another way in which the element of amplification altered the technique of the soloist, and was a common thread throughout the rehearsal of the piece – that is, Waks didn't have to 'try so hard' to project his tone against an entire orchestra, particularly in difficult soloistic passages.

The climactic nature of this section was continued into the next section, marked "Cadenza". As the title suggests, it is a cadenza for the solo cello, joined later by strings, brass and percussion playing predominantly textural material. Dramatically, the first half of this section could be related to aspects of soloistic heavy rock electric guitar solos. Whilst harmonically different, the feelings of quasi-chaos and extreme virtuosity are similar to this gesture found in types of popular music.

This orchestral virtuosity gradually changes into a didjeridu-type figuration for the solo cello, joined by the strings. This relates to the fact that one of my cousins who died was Aboriginal, and thus it seemed like an appropriate tribute to his heritage. However it is not treated as an extensive exploration of Australian Aboriginal music. Rather it becomes almost as a background to the textural effects that are used in the string parts. When effects pedals are added, the repeated gesture takes on a more unearthly dimension, with the flange, regenerative delay and ring modulation serving to eventually distort the sound beyond acoustic recognition. It seems to merge with the surrounding sounds, perhaps in the same way that a body eventually is merged with the earth in which it is buried.

In the Cor Anglais solo that follows, the textural string parts are generally played very softly, echoing of their function in the previous section. They serve as a noise-like background underneath the mournful solo. The reminiscences of the 'aboriginality' aspect of the work are continued through the trora-stick-like patterns played in the percussion parts. Again, these references are a deliberate reference to my cousin's heritage.

In large part then, the Cadenza section and the Cor Anglais solo could be viewed as a sorrowful exploration of grief and mourning. This continues into the next section, marked Lament, which opens with a piece of quasi-Gregorian chant.

The Lament section of this movement is based upon an earlier piece, *Lament* for cello and piano. This original work was composed not long after the funeral service for the Port Arthur massacre victims in May 1996. It is less a direct response to this particular event than an attempt to capture the feeling of immense sadness present at this – and indeed, every other – funeral service. It was therefore an appropriate piece in which to integrate into *In Memoriam*.

This funereal mood was translated into many musical aspects of this section. For example, the image of a funeral march was conveyed through the slow, continuous plodding accompaniment figures beneath the solo. There are bell-like intejections interspersed in various sections. In addition, much of the cello part was composed around the speech-rhythms of "The Lord is My Shepherd", a Psalm that was read out at the Port Arthur Memorial Service, and which is typical of most Christian funerals. The structure too, is loosely based around this Psalm, with the gentle "The Lord is my shepherd, I shall not want" giving way to the more aggressive "Yea, though I walk in the valley of death" section at bar BAR NO.

After the brief tumult of this middle section, the initial plain-chant of the opening returns, though up and octave and a semitone. By moving it to an E major tonality rather than C minor, there is a sense of acceptance achieved. The end of the movement thus does not end with a depressed or anguished tone, instead concluding more positively, leading the way to the next movement.

The musical material used in the Lament section does not overtly demonstrate any influence of popular music. If anything, influences come more from the last movement of Messiaen's

Quartet for the End of Time as well as possibly John Rutter's *The Lord is My Shepherd*. Rather than being representative of popular music culture, the first movement of *In Memoriam*, particularly the Lament section, therefore demonstrates my interest in Australian mass culture as a whole. Australia was collectively shocked, horrified and moved by the Port Arthur massacre and the consequent memorial events. The first movement of In Memoriam deals with the gamut of emotions experienced after the death of a loved one, and thus attempts to be universal and relevant to the culture in which it was written.

Celebration

As previously suggested, the second movement of *In Memoriam* aims to offer a reflection upon the good times spent together whilst alive. Certainly my cousin Robert had an extremely energetic, vibrant, and at times uncontrollably exuberant personality. This was intended to be conveyed in this movement, and the establishment of this mood was more important than creating as many pictorial or directly programmatic references as in the first movement.

"Celebration" demonstrates many more direct influences of popular music styles than does "Lament". Most obvious examples of this are the fast tempo, semiquaver-based rhythm, some degree of repetition, a strong beat, predominantly triadic harmonic vocabulary, instrumentation (including drum kit) and the sectional nature of the movement.

Having stated this, "Celebration" includes many differences from earlier works such as *Speed* or *technologic 1-2* that use similar concepts. Part of this has to do with the nature of the work. The concerto format can impose question and answer constructs between the soloist and the orchestra. Thus sustained orchestral sections that utilise textural addition and subtraction and their main focus are not so applicable (though this occurs in the opening of the movement, for the first 50 bars [CHECK HOW MANY BARS]. "Celebration" also does not really so heavily on short repeated motivic cells as used in *Speed* and *Rave-Elation.* There are a selection of motives used, but they tend to be longer, possibly covering several bars rather than contained in one. Adjacent sections are generally shorter, increasing contrast throughout the breadth of the movement.

"Celebration" was marked by a desire to write fast music that it idiomatic for the cellist to perform. The nature of much of the material used was so that the performer can really 'get into it' and play vibrant, rhythmic music. This was intended to provide a stark contrast to the majority of the first movement. Links to the first movement were mainly through the level of extroversion and the music being 'full-on'.

To achieve the fast, rhythmic nature of "Celebration", there is much passagework for the soloist. Normally this sort of writing can be problematic for a cellist as it is difficult to cut through the orchestral sound, particularly in the middle to lower register. Amplification helped, and there was much consultation between the composer and Nathan Waks to make passagework as playable as possible.

Two examples from within "Celebration" can adequately demonstrate some of the continued influences of popular music styles such as techno. Bars 29 to 40 feature an orchestral tutti that is constructed in layers of sound. The untuned percussion parts provide a rhythmic foundation using gestures derived from techno music, including such rhythmic and instrumentation features as repeated bass drum crotchets, off-beat open hi-hats and continuous semiquavers on the tambourines. Harmonically, it is uses a triadic basis, and the layers of sound interlock within the repeated six-bar phrase.

The material from bars 147-177 demonstrates further origins. At bar 147, the piano plays material that is rhythmically, gesturally, registrally and harmonically representative of a typical piano figure in techno or house music. The use of added-note chords and sequences moving by tone complements the the two-bar phrasing of this pattern, again gestures directly relatable to popular music models.

These two examples do not form the entire movement. "Celebration" differs from earlier works such as Speed in a number of ways. Firstly, there is the use of the concerto format, already discussed. The equivalent could perhaps be the use of a vocal soloist (a diva) in techno but they are never used to such a soloistic extent as the role of a soloist in a concerto.

Structurally, "Celebration" is very different. There are many less bar-to-bar repetitions in "Celebration" as opposed to a work such as *Speed* or *technologic 2*. Whilst construction is generally sectional in nature, contrast between adjacent sections does not rely so heavily on

textural changes. There is a much greater use of divergent musical styles and gestures within "Celebration" than would be found in a typical techno work. For example, the harmonic, rhythmic, gestural or functional notions of orchestral climax before the cadenza (Letter **P**) would not be found in a characteristic piece of techno. In addition, "Celebration" was composed with a strong sense of motivic development running throughout the movement. Such development is rarely encountered in techno.

All of these changes demonstrate the process of development and integration of popular music influences into my own style. When composing "Celebration", I did not refer to any pieces of popular music, but sought to build on and ideas that I had explored in my own previous works. These devices has become assimilated into my subconscious method of composition.

Chapter 10: Influences of Other Composers

A large part of this introductory essay has dealt with the integration of some popular music characteristics within a classical music context. However I have brought up some other pieces that have used materials not directly linked to popular music styles. The use of one musical influence does not preclude the use of others.

It may be relevant to mention here some of the other composers whose music I have also admired. These include:

Johannes Brahms: for his superb melodic writing and its integration with rhythmic devices, typically hemiola (*Symphony No. 3*, *Symphony No. 4*, the three *Violin Sonatas*);

Maurice Ravel: for his clarity and transparency both of orchestration and content. The music of Ravel is epitomized by its beauty and quest for perfection (*Daphis and Chloe*, *Pavane for a Dead Princess*);

Olivier Messiaen: for his unquestionable singlemindedness in terms of pursuing a goal, and the supreme confidence which he instills into his music (*Turangalîla Symphonie*, *Vingt Regards sur l'infant Jésus*);

Iannis Xenakis: for the extreme extroversion of so many of his works, as well as the energy and power that his music imparts (*Keqrops*, *Idmen A-B*);

John Adams: for the innovative ways that he combines repetition and rhythmic devices within mainly triadic contexts (*Harmonielehre*, *Nixon in China*);

Louis Andriessen: like Messiaen, producing uncompromising and focussed music with a strong emphasis on rhythmic content (*Rosa*, *de Staat*, *Hocketus*);

Peter Sculthorpe: for his integrity and desire to produce music that is relevant to, and reflective of, the culture and physical environment of Australia and Australians in the late twentieth/early twenty-first centuries (*Kakadu*, *Great Sandy Island*);

Ross Edwards: for the courage and conviction that his music imparts, and for the innovative harmonic, rhythmic and melodic structures (*Maninyas*, *Symphony No. 1*)

The level to which the music of each of these composers has influenced my own has varied according to circumstance.

The works of Brahms and Ravel for example, come from entirely different eras of music history to the one in which I am living, and so rather than provide direct correlation, they provide a point of inspiration to which to aspire. For example, I would one day hope to match Ravel's clarity in his orchestral music despite the often-significant differences in content. Through study of scores, it is possible to learn more about how he has achieved this. At present though, this is the extent of his influence.

Others, though, have had a much greater influence. For example, in 2000 I worked acted part-time as an assistant to Ross Edwards. This largely entailed the task of typesetting his music via computer. This enabled me to gain a significant insight into the way that this composer constructed his music, both from the point of view of entering pre-existing works, as well as observing first-hand the process of how he creates music very much as a process of accretion over time. I found this to be a very different approach to the way that I usually compose, which is in essence constructing music in blocks and then putting them together later in the process.

Working in this way with Ross Edwards also enabled me to gain an insight into his harmonic and rhythmic language. The extent of this influence can be ascertained to some degree in the "Stand Up" movement of *Heartland* (2001), as well as some 'quotation' passages such as in the last movement of the *Violin Concerto*.

Despite having studied with him for my undergraduate degree and for the first part of this doctoral programme, Peter Sculthorpe's music has become more and more influential as time passes. Structurally, Sculthorpe's music tends to be sectional, as does my own. Some typical motivic, melodic and harmonic notions such as a repeated drum pattern (as in the bongo part of *Earth Cry* or *Kakadu*) have found their way into the first movements of the *Violin Concerto* and *In Memoriam*. To some degree the introductory section of the first movement

of *In Memoriam* was conceived partly as a being "Peter Sculthorpe meets Richard Strauss". It has been remarked that the chant-like cello solo is very similar to chant-like figures in Sculthorpe's *Requiem for Cello Alone*.[16] Structurally, the whole of *In Memoriam* resembles the fast-solo-slow-fast sectional construction of *Kakadu*. This was intentional as I was aware of the possibility of *Kakadu* providing a solid structural model.

Is it a problem to have so many musical influences constituted into my general 'style'? Personally, I don't believe so. In opposition to Michael Smetatin's stated compositional aim (as described in Chapter 2), I don't believe that a composer need consciously attempt to create his or her own *tabula rasa* when it comes to conception of music.

During the rehearsal process to the first performance of Homage to Metallica with the Adelaide Symphony Orchestra in 1993, conductor David Porcelijn questioned the musical nature of this piece: "Why are you writing this 'Funkytown' music? [Louis] Andriessen did this thirty years ago!". Tutor Roger Smalley also questioned this point with regards to a number of the younger composers present at this workshop[17], expressing that the development of music must go forward, and that there must be "progress".

The general notion of progress was hotly debated. The younger generation were at odds with this concept, particularly when it implied that active rejection of pre-existing models was necessary. In own approach to music composition I have strived to remain open to all sorts of musical models, be they anything from Gregorian chant to the orchestral works of Gerard Brophy to Fijian-Indian pop songs. In an age when access to such a wide variety of musics from around the world is so readily available, closing off all sources of inspiration seems either arrogant or stupid.

Of course this does not imply that all styles of music will or should appeal to everyone. Part of the training of being a Western art-music composer involves the analytical exploration, and consequent acceptance or rejection of different parts of music. Openness to varied musical

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[16] I would like to point out that this resemblance occurred subconsciously rather that being a conscious decision. I had only heard Sculthorpe's *Requiem* one or two times before, back in the 1980s. Also, I have always had an interest in Gregorian Chant, and have previously used it in pieces such as *In the Lady Chapel* (1987) and *Alleluia Justus Palma* (1989). However, as it turns out, the similarity of material was fortuitous as the soloist for whom *In Memoriam* was written, Nathan Waks, was the performer with which Sculthorpe collaborated with in writing the *Requiem*!

[17] The student participations were Elliott Gyger, Scott McIntyre, Rae Marcellino and myself.

influences does not substitute for imagination or invention.   In my case, imagination and invention in my case have been stimulated by a variety of different composers and their music.

Chapter 11: Crossover and Connotations (Conclusion)

During that past decade of my writing music, one of the most common questions has been, "if you like techno music so much, then why don't you just write it? Why do you write for acoustic instruments?"

My considered answer to this question is that I don't write techno music. I have never pretended to. The second movement of *technologic 1-2* is not a piece of techno, in spite of the fact that it is significantly derived from it. It falls within another cultural tradition, that of live performance of Western classical acoustic music.

In any case, I sincerely believe that whilst I still have something to offer to the Western art music tradition, then I am entitled to try.

In my case, it is that I believe that it is possible to create fresh and exciting music from a variety of influences and source materials, if necessary, which enrich a musical heritage. During the introduction to the performance of *Homage to Metallica* by the Sydney Symphony Orchestra in 1997, the conductor drew the comparison of what I do with popular music sources to those folk-music collectors in the early twentieth century. Bartok, Vaughan Williams, Grainger and Szymanowski were all first-rate composers who were intrigued by folk music of their own and other world cultures, feeling inspired to create works that utilized such melodies and structures.

In more recent times composers such as Peter Sculthorpe and Paul Stanhope have been fascinated by Australian indigenous music. Barry Conyngham and Anne Boyd have manifestly been influenced by the music of Asia.

There has been many occasions on which composers have integrated elements of jazz. Ravel, Don Banks, Bozidar Kos, Stuart Greenbaum and Gunther Schuller are just some examples of composers who integrated jazz elements into their works. The influences of other popular music styles such as music for media such as silent movies or cartoons has made its presence felt on Shostakovich and Graeme Koehne. Martin Wesley-Smith has taken a very eclectic

approach to many of his acoustically-intentioned works, including using barbershop idioms in a number of works such as *Who Killed Cock-Robin?*.

In my case, my 'folk music', my own musical heritage, has been popular music of one form or another. I have never been a regular player in a rock band, for example, but that does not mean that I was never moved by The Buggles' rendition of *Video Killed the Radio Star*, or the directness of *My Sharona* as performed by The Knack.

It is also interesting to consider the issue of 'crossover' styles. There are more cross-over attempts to "remix" or re-arrange classical music into the dance music domain than vice versa. There have also been more attempts to re-interpret acoustically-based music with electronic and digital technology than the reverse.

Recent examples of the acoustic to electronic remix phenomenon are the techno version of "O Fortuna" from *Carmina Burana* [GET REFERENCE], as well as the recent disc of William Orbit's remixes, including [GET THE TITLE OF THE DISC AND THE CONTENTS THEREIN].

It is difficult to tell why techno music has not been seen as a source of inspiration to more composers.

Perhaps the most obvious reason could be that other composers don't feel an affinity techno music, and/or don't find it very interesting either from a sociological or musical standpoint. There can be no rebuttal against such personal judgement.

There may also be an element of snobbery: "high art / low art". Techno music in its original form is predominantly favoured by the young, and is a more 'populist' form of music than most composers would consider contemporary art music to be.

The primary aim of techno music is to elicit a physical response from its listeners (i.e. movement), whereas most art music is directed towards the listener being in a stationary listening position.

In addition, if a composer is not particularly interested in the types of rhythmic, harmonic and structural elements inherent in techno music, then there are so many other musical influences within the world of contemporary art music that they could find more attractive. In no way could the world of techno music, even with its myriad of variants, be seen as a richer tradition that the last one thousand years of Western art music.

My own approach has been to take an open mind to these influences, not to especially consider the origin of the music or what it represents, but rather to attempt to consider the purely musical qualities in some form of isolation from any sociological implications. Thus for example, I have not been influenced at all by the *poseur* use of quasi-Satanist lyrics in much death-metal music[18]. However, the musical concepts that are imparted in the music itself, such as its power, theatricality and virtuosity, have captured my imagination.

With techno music, its primary association with rave parties and associated drug use is unimportant in terms of writing works that utilize, consciously or sub-consciously, musical elements that may be typical of the genre. This conjures a philosophical question – to what extent should a composer remain open to music influences, and to what extent should he or she take into consideration the connotations that go with such music?

As an example, would I be comfortable about employing aspects of a neo-Nazi anthem into my own work? Definitely not. On a personal level, that cause is repugnant and unacceptable. However I would have to consider exactly how deeply such feelings are associated to, or attributable to, the music in question.

Techno does not make people go out and get stoned, in spite of it being played at raves where people do. The rhythmic motives of death-metal do not cause people to commit suicide. It is possible and sensible to separate cause and effect, or to acknowledge successful aspects of music apart from the sociological connotations.

Another example concerns the novel *American Psycho* by Bret Easton Ellis [GIVE REFERENCE?]. Reading this novel was a sickening and disturbing experience due to its gratuitous violence. However the ridiculously graphic nature of its content does not mean

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[18] In reality the lyrics in death-metal are almost always intelligible as a result of their method of delivery.

that I should not be able to acknowledge the book's successful structural flow, or interesting character development[19].

I would also restate that whilst my music is influenced by these musical genres, they are not examples of them. By utilizing influences of techno and death metal music I am not glorifying them, or any sociological associations that one hold to them, but rather using parts of them. They become nothing more than constructional aids to achieve an end result.

Thus *Speed*, despite one interpretation of its title, is not a homage to drug use, but rather an essay on the general feelings of rushing and exhilaration. Never having taken drugs, I can't comment on whether the work is representative of the feeling after taking an amphetamine. This wasn't a consideration when writing the work.

Of course such titles can easily misinterpreted, and so it is important in documents such as this one that I emphasise the point as the relationship or lack thereof between an initial music influence's perceived sociological connotation and resultant artwork.

As already noted in this introductory essay, my own reaction and employment of aspects from these particular musical genres has waned over time. Even since *technologic 1-2* they have become distilled further and further, to the point where I do not consciously attempt to integrate them, but rather they are just a natural feature of a personal 'style'. By remaining open to the possibilities of all forms of music, from esoteric numerically-derived compositions of Ian Shanahan to a Fijian-Indian popular song to an improvised jazz piano solo, I will not be allowing myself to be musically marginalised from the society in which I live and am an active member.

I have no idea whether the utilization of aspects of popular music would work for other composers. I don't know whether the attempt to create music that is largely visceral, exciting and exhilarating in the same way that I have is one that will be further explored by composers in future years. The process of composition has produced a physical response every time that I have completed a piece. If a piece can affects composer, then it can affecting the wider public, no matter what it is made of.

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[19] On the other hand, I would actively dissuade anyone from reading that novel due to its content. The content, in my opinion, is not of the quality of other qualities of the novel. Similarly I would dissuade anyone listening to death-metal from reading the lyrics, or at least taking them seriously.

Appendix I: Chronological List of Works

This appendix comprises a chronological list of pieces referred to in this introductory essay as well as all works composed during the candidature period January 1996 to June 2001.

	Title	Instrumentation	Duration	Other
1987				
	In The Lady Chapel	two female voices, or two countertenors	4 minutes	
1989				
	Alleluia Justus Palma	clarinet in Bb/Eb, piano (4 hands), percussion	10 minutes	
1991				
	Elvis	twelve voice choir and electronic bass drum	25 minutes	
1992				
	Mace	amplified acoustic guitar with effects pedals	9 minutes	
	The Power of the Gun	chamber choir and large mixed ensemble	15 minutes	
1993				
	Chrissietina's Magic Fantasy	two violins	10 minutes	also rearranged for violin and viola in 1998
	Homage to Metallica	orchestra: 3333 5331 Hp Timp 2Perc Strings + amplified 1/8th sized violin	14 minutes	
1994				
	AK-47	piano with optional electronic bass drum	5 minutes	
	Believe in Yourself	orchestra and massed female voices	7 minutes	
1996				
	Speed	orchestra: 2222 4331 Hp Timp 1Perc Strings	16 minutes	also rearranged into a 6 minute version called *LiteSpeed*
	SCUD	large chamber ensemble of 18 players	6 minutes	
	Lament	cello and piano	8 minutes	
	Five Movements for Saxophone Quartet	saxophone quartet	25 minutes	
	DeathStench	amplified flute with effects pedals, amplified clarinet with effects pedals, piano	14 minutes	
1997				
	RPM	orchestra: 2222 4220 Hp Timp 2Perc Strings	4 minutes	also rearranged for orchestra without trombones, and for amateur orchestra
	Two Marine Portraits	two amplified bass recorders with effects	10 minutes	

		pedals		
	Rave-Elation	double chamber orchestra: 2 x (2222 2200 Strings), Piano, Strings	14 minutes	
	Techno-Logic	string quartet with optional amplification and effects pedals	25 minutes	
	The Rage Within	six-voice ensemble, 2 percussion, 2 sampling keyboards and live electronics	8 minutes	revised in 1999, now withdrawn
	GameBoy Music	clarinet and piano	5 minutes	arranged from the last movement of *Five Movements for Saxophone Quartet*
1998				
	technologic 145	large ensemble of 13 players (1111 1110 Hp 2111)	14 minutes	arranged from movements 1, 4 and 5 of *Techno-Logic*
	Pixellate	four female voices, tape and video	4 minutes	
	n-trance	harp	6 minutes	
	technologic 1-2	string orchestra with percussion or CD	8 minutes	arranged from movements 1 and 2 of *Techno-Logic*
	Velvet	two guitars	4 minutes	reworked from *n-trance*
	Yandarra	double bass and piano	7 minutes	
	Jungle Fever	french horn and piano	6 minutes	also arranged for cello and piano, and tenor saxophone and piano
	Night Pieces	oboe and piano	6 minutes	also arranged for soprano saxophone and piano
	Love Serenade	bassoon and piano	8 minutes	also arranged for cello and piano
	Ignition: Positive	trumpet in C and piano	5 minutes	
	Insect Songs	mezzo-soprano and guitar	10 minutes	
	GameBoy Music	mandolin quartet	5 minutes	arranged from the last movement of *Five Movements for Saxophone Quartet*

1999				
	π	SATB choir, 3 perc and piano	10 minutes	also rearranged for large SATB choir and orchestra
	Velvet Dreams	Massed SATB choir and orchestra: 2222 4220 Timp 3Perc Hp Strings	6 minutes	reworked from *n-trance* and *Velvet*
	Rush	guitar and string quartet	9 minutes	
	Boom-Box	orchestra: 2222 4231 Hp 3Perc Strings	4 minutes	
	Siegfried Interlude No. 1	brass ensemble: 4 horns, 2 trumpets, 2 trombones, bass trombone, tuba (optional crash cymbals)	4 minutes	also arranged for brass ensemble: 1 horn, 4 trumpets, 2 trombones, 1 bass trombone, tuba (optional crash cymbals)
	Siegfried Interlude No. 2	wind octet: piccolo, flute, oboe, cor anglais, clarinet, bass clarinet, bassoon and contrabassoon	3 minutes	also arranged for clarinet and piano, also for soprano saxophone and piano
	Siegfried Interlude No. 3	three percussion	3 minutes	
	Moments of Plastic Jubilation (solo version)	piano	5 minutes	
2000				
	Whitewater	String ensemble of 12 players: 7221	20 minutes	
	Moments of Plastic Jubilation (piano and tape version)	piano and pre-recorded tape	13 minutes	the first movement of this piece is a reworking of *Moments of Plastic Jubilation (solo version)*
	In Memoriam: Amplified Cello Concerto	Amplified Cello and orchestra: 2222 4231Timp 5Perc Hp Pno/Cel Strings	34 minutes	the first movement of this piece contains a reworking of *Lament* (1996) for cello and piano
	Violin Concerto: Australian Postcards	Violin and orchestra: 3333 4231 Timp 2Perc Hp Strings	29 minutes	
	The Blue Alice	SATB choir and orchestra: 3222 4231 Timp 3Perc Pno Strings	8 minutes	
2001				

Heartland	massed SATB choir and 2 pianos	25 minutes	
The Rave and the Nightingale	string quartet and string orchestra	16 minutes	
Always on Time	violin and cello	2 minutes	also rearranged for piano solo
Mechanically Speaking	piano	5 minutes	

Appendix II: List of Press References

This appendix comprises a chronological list of references, reviews and general articles relating to Matthew Hindson and/or his music during the candidature period January 1996 to June 2001.

It covers all press references of which the composer is aware – doubtless there have been others that have escaped notice.

[SHOULD I PUT THIS APPENDIX IN? MAY BE MORE WORK THAN IS NEEDED!]