

2005

Collage music : the development of a language of studio composition

Mumford, Paul Lewis

<http://hdl.handle.net/10026.1/731>

<http://dx.doi.org/10.24382/4494>

University of Plymouth

All content in PEARL is protected by copyright law. Author manuscripts are made available in accordance with publisher policies. Please cite only the published version using the details provided on the item record or document. In the absence of an open licence (e.g. Creative Commons), permissions for further reuse of content should be sought from the publisher or author.

**COLLAGE MUSIC: THE DEVELOPMENT OF
A LANGUAGE OF STUDIO COMPOSITION**

by

PAUL LEWIS MUMFORD

A thesis submitted to the University of Plymouth
in partial fulfilment for the degree of

DOCTOR OF PHILOSOPHY

Department of Music
Dartington College of Arts

October 2005

Copyright Statement

This copy of the thesis and accompanying audio CDs have been supplied on condition that anyone who consults them is understood to recognise that their copyright rests with their author and that no quotation from the thesis and no information derived from it and no part of the recordings may be published without the author's prior consent.

Paul Lewis Mumford

**Collage Music: The Development of
a Language of Studio Composition**

ABSTRACT

This thesis is intended to amplify, support and provide historical and aesthetic contexts for the concerns which I have explored and developed in my creative practice as a composer. It is accompanied by three audio CDs containing six compositions which map the development of my language of studio music, together with a further two CDs containing earlier compositions and a sixth CD containing a musical reference compilation which supports the text. The thesis is divided into the following six sections:

Introduction • a brief account of my background as a composer including a summary of the composition portfolios of my previous degrees, going on to discuss my first composition for this project, *The Book* (1999), which is submitted not as a portfolio piece but for reference only (CD 4) • a description of the subsequent ten compositions, only one of which is submitted, *Summer Nights Dream* (2001), which again is intended for reference only (CD 5) • the listing of a number of influential collage pieces according to the categorisation *superimposition* or *juxtaposition* which prefaces the history of collage music outlined in the next chapter.

1 Collage Music: History, Context and Influence • a positioning of collage music in both historical and cultural contexts; examples are drawn from both popular and classical musics including examples of contemporary studio-based music, in effect proposing a genre-crossing history of collage music which is currently undocumented • an examination of the ways in which the structure, pace and content in my studio music have been informed by comedy. This chapter is intended to be read in conjunction with the musical reference CD (6).

2 Composition and Computers: The Landscape of Studio Music • an exploration the various ways in which music technology has been an influence on the development of my compositional language • a brief survey of the field of algorithmic composition and a description of a suite of computer programs I designed in order to generate musical material • a discussion of a system of calculating modes which I devised in conjunction with these programs • an account of 'large-scale phasing' including an examination of historical precedents in both the classical and popular music traditions for using this kind of generative system • an exploration of the notion of musical *landscape* as a means of pointing up a significant development in my approach to composition.

3 The Portfolio of Compositions: An Overview • a discussion of the development of my language of composition throughout the pieces in the portfolio • a grouping of my work into four approaches to form: *generative landscape*, *episodic*, *rondo* and *fantasia* • an examination of structure and gesture in my pieces.

4 Carnival of Light: An Account of my Compositional Process • a detailed account of the composition of one of the pieces in my portfolio in which I show how I have been inspired by texts, paintings, photographs and music in the creation of each section of my piece, hoping also to illuminate the thinking processes involved.

Conclusion • an attempt to bring together the themes of each of the preceding sections, and to summarise the contribution I have made to the fields of studio composition and collage music • the introduction of the notion of *altitude* as a means of establishing a distinction between collage and non-collage music • a discussion of the issue of quotation in collage and a consideration of the relevance of collage music in contemporary culture.

Acknowledgements

I am deeply indebted to the inspiring and tireless assistance of my supervisors Prof. Frank Denyer and Dr. Bob Gilmore.

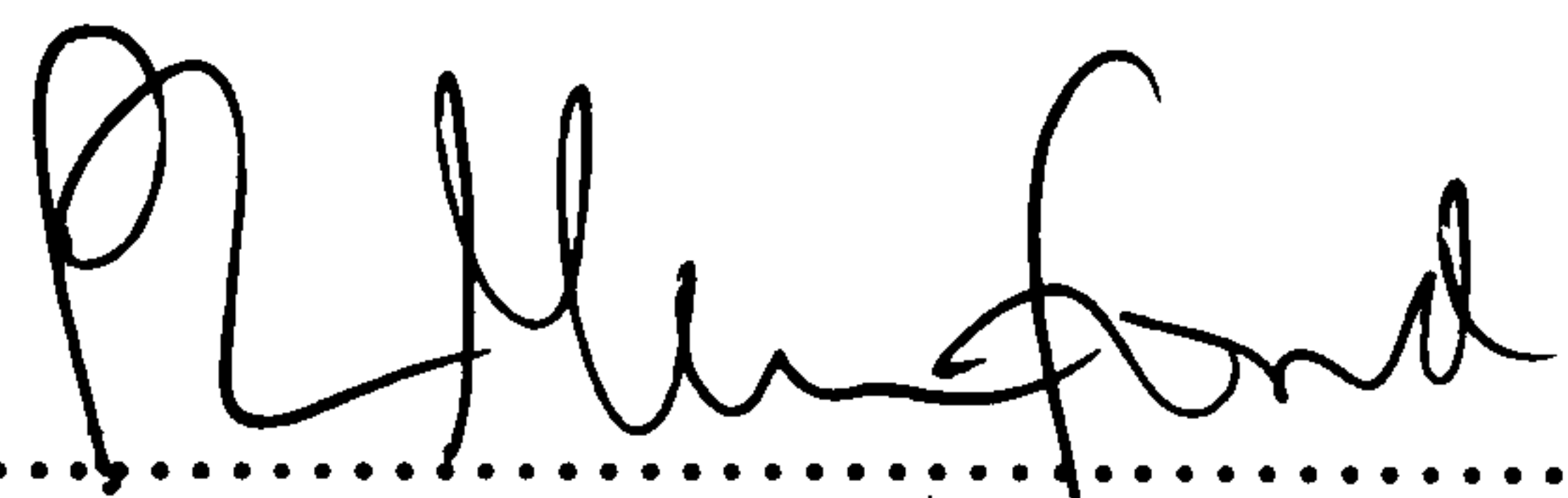
I would also like to acknowledge the following friends who have consistently informed and challenged me in the development of my compositional thinking: Alfredo Genovesi, Andy Keep, Ciaran Maher, Dave Sanderson, Mark Wherry, Steve Grainger, Bruce Roberts, Matthew Strachan, Nick Harrison, Stuart Crewes, Andy Christie and Steve Gordon. Earlier teachers who helped me on the way are also worthy of mention: Mike Lease, Nick Virgo and Phil Grange.

Special thanks are also due to Belinda Dillon for proof-reading my thesis.

Dedicated to my mother, my father and my brother.

AUTHOR'S DECLARATION

At no time during the registration for the degree of Doctor of Philosophy has the author been registered for any other University award.

Signed.....
Date.....12/10/05.....

CONTENTS

Introduction.....	1
1 Collage Music: History, Context and Influence.....	8
2 Composition and Computers: The Landscape of Studio Music.....	27
2.1 Algorithmic Compositions.....	29
2.2 A Catalogue of Modes.....	34
2.3 Colliding Circles.....	36
2.4 Imaginary Landscape.....	38
3 The Portfolio of Compositions: An Overview.....	41
3.1 Form.....	42
3.2 Structure and Gesture.....	47
4 Carnival of Light: An Account of my Compositional Process.....	49
4.1 <i>carnival of light</i>	51
4.2 <i>navigation</i>	52
4.3 <i>midnight pointillism</i>	54
4.4 <i>summer nights dream</i>	56
4.5 <i>metropolis</i>	57
4.6 <i>clockwork fish</i>	59
Conclusions.....	60
Appendix I The Portfolio of CDs: An Overview.....	65
Appendix II A List of Compositions.....	68
Appendix III The Musical Reference CD.....	71
Bibliography.....	74
CD Portfolio.....	79

Introduction

Spike Jones Jr., whose father's orchestral recordings had a deep and indelible effect on me as a child, said once in an interview, 'One of the things that people do not realise about Dad's kind of music is, when you replace a C-sharp with a gunshot, it has to be a C-sharp gunshot or it sounds awful.'¹ (Thomas Pynchon)

The portfolio of compositions which I am submitting as the practical component of my research can be neatly characterised by this insightful remark by Spike Jones Jr. concerning the substitution and juxtaposition of the more traditional material of composition – notes played by instruments – with the vast array of other sounds available to a composer working in the field of studio music. I began my project writing scores for instruments with recorded parts and have ended up submitting a portfolio of recorded music which includes instrumental parts – yet the fundamental principles of composition have remained the same throughout. A gunshot demands the same quality and depth of aesthetic consideration in terms of its timbral qualities, temporal placement and gestural significance as does a C-sharp played by a violin; and this is never more apparent than when an attempt is made to integrate these two types and indeed every other conceivable type of sonic material into one compositional language.

¹ Thomas Pynchon, *Slow Learner: Early Stories* (Picador, 1985), p. 22.

Studio composition, given the vast range of musical languages which are currently available for study, can often present such a bewildering assemblage of materials, gestures, forms and meanings that it can be difficult to know where and how to contextualise such work aesthetically, where to begin in order to understand, and in the contemporary field of music there no longer seem to exist shared, acknowledged ‘schools’ or canons to which music may be purported to belong. It seems appropriate then, before embarking on an examination of the sounds and ideas which have been the subject of my work to provide a brief introduction outlining the musical developments which preceded my starting this project and, in the process, to begin to illuminate why it has developed in the direction that it has.

My research has been concerned with the development of a language of studio music which, as well as engaging with the most contemporary music technologies, is intended to be informed and inspired by the history, and to contribute to the ongoing evolution of what I will be calling ‘collage music’. In my thesis I will be attempting, amongst other things, to locate this ‘genre’² in an historical context, to describe its salient features and to identify the various ways in which I have contributed to the field. I have been able to develop a complex and distinctive language of composition which emerges most characteristically in the last two pieces in my portfolio, *Bicycle* (2002) and *The Blind Watchmaker* (2003) but which is apparent in a somewhat more latent form in all of the earlier pieces, and which draws from a wide range of influences – both musical and visual. Furthermore, later in this paper I will be examining the ways in which two comedy shows, one from television and one radio (*Monty Python’s Flying Circus* and *The Goon Show*) have been an influence on the structure and timing of my music.

² Perhaps rather than a genre it is more useful to think of it as an aesthetic *tendency*, the exotic and esoteric thread of which can be traced through, and detected in, the music of all times and places.

The language of my music has also evolved concurrently with the development of my skill and experience in working with the processes, practices and techniques of contemporary home-studio music production. I have undertaken to learn and had expert tuition in digital audio manipulation, MIDI (Musical Instrument Digital Interface, the protocol by which computers and synthesisers, etc., communicate), audio instruments (which are described later), sampling, and, most importantly, mixing and mastering which are, in a sense, indistinguishable from what we might think of as ‘composition’ in this kind of music. Mixing is commonly described, in the studio production of pop music, as that set of processes by which all the recording’s constituent parts are balanced (volume), EQ’d (adjustment of frequencies) and treated with processors (compressors, gates, etc.) and effects (reverb, delay, chorus, distortion, etc.). Since, when working with abstract sounds in a manner similar to that which has resulted in the development of genres such as *musique concrète* and electronic music, these processes are not merely applied *to* the musical material but, as such, are an integral part *of* the musical material, they cannot really be thought of as separate from the central concerns of *composition*.

My desire to explore and to develop ‘collage music’ is almost certainly a direct result of the musical eclecticism of my typical upbringing in the western urban society of the late twentieth century – that is, exposure and access to an incredibly wide and diverse range of musics; through the education system, through being involved with performance and, perhaps most significantly, through the commercial media – television, radio, tapes, records and CDs. After a busy musical adolescence, I studied for an undergraduate degree at Dartington College of Arts (1990-93) where I was introduced to Stravinsky, Webern, Boulez, Messiaen, the experimental American music of Reich, Ives, Cage, Partch, Nancarrow, La Monte Young and the traditional musics of India and Africa. For my composition recital at Dartington I composed a set of pieces for different ensembles (including one for fairly large forces) in which I began working with juxtaposed blocks of musical material (inspired by having studied Stravinsky and

Messiaen) and in which the pitch and rhythm content had been generated by computer programs I had written. I then went on to study for the MMus at Exeter University (1996-97), where I built a portfolio of compositions most of which explored the myriad possibilities of superimposing live instrumental parts onto pre-recorded sounds in performance.

I feel my most successful piece from this period was *Earthman Come Home* (1996) which was performed three times by the Kokoro Ensemble, members of the Bournemouth Symphony Orchestra. In this piece I had live clarinet, violin, 'cello and electronically-treated piano parts being perfumed over recordings of short-wave radio interference on tape machines positioned around the stage and also a collage of sci-fi sound effects including excerpts from the 1969 NASA moon landing intermittently blasting out of an overhead PA speaker system. I further explored this approach with a number of other pieces including *Prayer* (1998) in which I had a large double choir and a small group of instrumentalists performing an unfinished Purcell choral piece simultaneously in two different keys, melodic excerpts from Purcell's *Dido and Aeneas* and a recorded part comprising of rumbles and occasionally erupting grotesquely distorted choral music. I went on to begin my PhD at Exeter University, but transferred after a year back to Dartington, where my present course of study commenced.

After a year at Dartington and having made a further, much longer, live composition (*The Book*, 1999) involving fairly simplistic aleatoric instrumental parts but a much fuller, more elaborate recorded part comprising, amongst other things, a collection of spoken texts on the subject of writing, the sound of books burning and frantic scribbling³, I realised that I was becoming less and less interested in working with instrumentalists and live performance and more in creating the studio recordings; and also that the compositional ideas which I now

³ Despite representing a currently abandoned direction for me as a composer, this composition nevertheless explored two techniques which have continued to be very significant in my compositional style – superimposition of instrumental parts with other sounds and large-scale phasing (a technique which I will describe later in this paper).

wished to explore were unfortunately no longer concordant with, nor particularly practical in, the world of the contemporary concert hall. My new techniques included the juxtaposition of diverse genres and styles, impossible orchestrations, the application of effects and gestures which are only perceivable on headphones⁴, a moving of the sound to different locations both spatially and in terms of the relation of the sound to the *landscape* of the work (see chapter 2), exact repetition, extreme length, chance, aleatory, automatic processes, indeterminacy, the use of random numbers, magic squares, illusions, tricks, fakes, frauds, jokes, pastiches and parodies – a ‘cabinet of curiosities’ which I have assembled over the years. From this point on, all my compositions have been studio music and I have favoured broadcast over performance.

In line with this new approach I created a CD version of *The Book* to replace the performance version by taking the recorded part and superimposing the instrumental parts in the studio (using synthesised sounds to imitate real instruments, which unfortunately renders this composition of poorer sonic quality to those in my final portfolio). All of the vertical relationships in this composition (including the harmony) were determined by the large-scale phasing cycles to which I submitted the material, and as such this composition has no structure, no sections, no subsequential crafting or decision-making of any kind; only an overall shape determined by the pattern of the cycles’ relationship with one another. It could be called *ambient* music; it is like the experience of an installation piece in which the various sonic objects have been thrown into temporal orbit around one another and are therefore always in different juxtapositions. It was the first piece I composed for my PhD, but is not intended to be part of the submitted portfolio; *The Book* is provided on CD 4 as an example of this earlier style partly because it constitutes a fairly substantial body of work in itself, and partly because it helps to illuminate the mosaic-like collage technique of juxtaposing self-composed fragments which I was to explore and develop in all my subsequent compositions.

⁴ In fact the ideal mode of listening to my compositions is using headphones and, preferably, loud.

Over the next year I made a further ten studio compositions employing the large-scale phasing technique and incorporating a range of different sonic materials including found sounds, newly-recorded sounds, recordings of instrumental performances (using session musicians) and synthesised parts (see Appendix II for a full list of titles), a body of work which at one point was going to represent my composition portfolio. Contemplating collage music, I suddenly realised that the development of my compositional language was being stunted by a severe limitation of my approach: I was exploring *superimposition* but had abandoned *juxtaposition*. I was co-ordinating the vertical relationships of my material but letting the horizontal sequence be left to chance. After further research, I realised that the majority of collage music can be classed as falling into one of two categories: (1) music which can be characterised as emphasising *superimposition* to create its collage effect and (2) music which can be characterised as emphasising *juxtaposition* to create its collage effect⁵. I now proceeded to make a list of those pieces of collage music which have most influenced my own compositional language and to determine into which of these two categories they could be deemed to fall⁶.

Of course all the music listed here incorporates both superimposition and juxtaposition, as does every composition that features more than one part and more than one note; the point is that in each piece the emphasis is one or the other to create the collage effect; for example, Frank Zappa's *Lumpy Gravy* (1967) [14] works by jump-cut editing sections of music into a sequence in order to create sudden changes of mood, style and genre and it often features quite

⁵ Film works primarily with juxtaposition, for example the 'jump-cut' editing of the sequence of scenes in a film creating the effect that is more commonly called 'montage', although certain films such as Peter Greenaway's *Drowning by Numbers* (1988) also employ superimposition by having many simultaneous layers of activity and visual symbolism in one scene. However, any soundtrack has of course been superimposed onto the film, a fact which means the visual and sonic elements are always in superimposition. Alexander Sokurov's *Mother and Son* (1998) exploits the fact that these two elements can be treated as independent phenomenon. Painting and written poetry primarily employ juxtaposition (images/words are next to one other) due to the two-dimensional plane on which they are set, but the use of transparencies etc. would mean superimposition was possible. Installation art, performance art and most other three- and four-dimensional art forms can explore both, as of course can music.

⁶ My judgement in each case can be cross-referenced to the excerpts on the musical reference CD (6).

startling interruptions and incisions, whereas Gavin Bryar's *The Sinking of the Titanic* (1975) [18] features the simultaneous recurrent sounding of various sonic objects relating to the theme, and there is one consistent ambience throughout. Yet, despite this radically different approach, both pieces would universally be considered to be classic examples of collage music.

The initial list which I drew up, and which consists solely of works which have been a significant influence on the development of my own compositional language, was:

JUXTAPOSITION

James Tenney, *Collage #1* (1961) [3]
Arvo Pärt, *Symphony No.2* (1966) [4]
Brian Wilson, *Smile* (1967) [12]
Frank Zappa, *Lumpy Gravy* (1967) [14]
John Zorn, *Forbidden Fruit* (1987) [20]
Cornelius, *Magoo Opening* (1998) [24]

SUPERIMPOSITION

Charles Ives, *Symphony No. 4* (1916) [1]
The Beatles, *Revolution 9* (1968) [13]
Luciano Berio, *Sinfonia* (1968) [15]
Adams, *Christian Zeal and Activity* (1973) [17]
Bryars, *The Sinking of the Titanic* (1975) [18]
Steve Reich, *Different Trains* (1988) [21]

Having begun this list it became apparent to me that as well as having literally a whole new dimension to explore in my composing, which in turn led to the creation all of the works which constitute my submitted portfolio of compositions, I now needed to start drawing up a possible 'history of collage music'. The first chapter in my paper is an outline of that history.

1

Collage Music: History, Context and Influence

Contemporary music thrives on invigorating, unforeseeable paradigm leaps: whether it's Krautrock groups like Can finding liberation in the psychedelic depths of 'I Am The Walrus', or Keiji Haino hearing a new world in the buzz of amps during the dying minutes of Blue Cheer's 'Second Time Around', it's as if a portal opens for a second and only those who are really listening see the opportunity to leap right through it.⁷ (David Keenan)

Collage has no single history and can claim many secular ancestors.⁸ (Dawn Ades)

This chapter is intended to present both the beginnings of a possible 'history of collage music' (a comprehensive survey of which is beyond the scope of this paper) and a map of those pieces which have most prominently influenced the development of my language of composition. The canon of collage music which I will propose here is also represented by the musical reference CD (6), which follows the chronological pattern of this chapter.

The term *collage* is of course normally associated with the visual art of Braque and Picasso (the first use of the term in relation to these artists' work is thought to be 1910⁹), the 'ready-mades' of Cubism and Marcel Duchamp, Kurt Schwitters, Dadaism and a host of others artist including Matisse, Hans Arp and Dubuffet. The aesthetics of Surrealism closely matched the collage principle; this is especially apparent when described as the pursuit of

⁷ David Keenan, 'The Primer' in *The Wire* (March 2002), p. 40.

⁸ Dawn Ades, 'Collage: A Brief History' in Peter Blake, *About Collage* (Tate Gallery Publishing Ltd, 2000), p. 37.

⁹ B. French, *Principles of Collage* (Mills and Boon, 1969), p. 81.

“...the ideal of placing together known objects in a manner that disturbed the spectator’s usual attitude towards the objects. Their works showed apparent contradictions (and) strange juxtapositioning of seemingly arbitrarily chosen elements.”¹⁰

Chirico, Nam June Paik and Joseph Cornell have all explored collage and Peter Blake is famous for collecting collage art, as well as designing The Beatles’ *Sgt. Pepper* (1967) album cover – one of the most well-known pieces of collage work. In the world of film (where the more usual term is ‘montage’) Sergei Eisenstein and Jean Cocteau are the directors most associated with this technique; but, as in music, many artists have created one or only a few works which explore the collage principle – Tarkovsky (whose masterpiece *Mirror* [1975] for example, represents the director’s childhood memories in a non-narrative, fragmented way) and arguably many other directors, including Peter Greenaway and, in *Lost Highway* (1997), David Lynch.

But it is by no means universally agreed what the definition of the term *collage* is, and whether or not it may be applied to music – in fact, in common with film, *montage* is often used. The dictionary has it that collage is “an artistic composition made by fixing bits of paper, cloth, string etc. to a surface.”¹¹ But *montage* is apparently either a ‘process’ – that of “making a composite picture or piece of music etc. by putting together pieces from other pictures, designs, or compositions”¹² – or “a picture etc. produced in this way.”¹³ Greg Ulmer, in his classic essay on collage, *The Object of Post-Criticism*, offers a different distinction altogether:

‘Collage’ is the transfer of materials from one context to another and ‘montage’ is the ‘dissemination’ of these borrowings through the new setting.¹⁴

¹⁰ B. French, *Principles of Collage* (Mills and Boon, 1969), p. 81.

¹¹ *The Oxford Paperback Dictionary* (OUP, 1989), p. 154.

¹² *ibid.*, p. 528.

¹³ *ibid.*, p. 528.

¹⁴ Gregory L. Ulmer, *The Object of Post-Criticism* (Pluto Press, 1993), p. 84.

Despite this *mélange*, *collage* is a familiar term in musical composition; Arvo Pärt has *Collage Sur B-A-C-H* (1964), James Tenney's famous "*Blue Suede*" piece (1961) is also titled *Collage #1* and there are many works which employ the principle of collage. One writer insists that

The term 'collage music' already exists to describe such a phenomenon, pioneered, in part, by the views of artists like Negativland (*sic*) and John Oswald and embraced by...techno.¹⁵

The great-grandfather of collage music, the old master of the kind of music I aspire to making, is, of course, Charles Ives, and among other things it is the humour in his music which I especially admire. I am particularly attracted to his *Symphony No.4* (1916) [1], with its awkwardly impractical orchestration (a large choir which only appears in the outer movements¹⁶, a piano completely retuned in quarter-tones which might never even be heard) and the stylistic unevenness of its movements, adding to the surreal, dreamlike nature of the overall experience. The themes of *childhood* and *nostalgia*, which seem to feature significantly in Ives's music, are also sources of the inspiration and imaginative speculation which have fuelled my own compositional development:

Adorno claimed that Mahler's music 'holds fast to the Utopia in the memory traces from childhood, which appear as if it were only for their sake that it would be worth living. But no less authentic for him is the consciousness that this happiness is lost, and only in being lost becomes the happiness it never was.' Adorno's claim fits Ives even though the actual childhoods, the imagined memories, and the senses of utopia and happiness diverge.¹⁷

As will become apparent when I closely examine the ideas and materials which acted as inspiration during the creation of one of the pieces in my portfolio later in this paper, I have worked throughout my project with the idea of 'invented memories' (an idea which is reminiscent of the work of Joseph Cornell, whose box constructions have been described as

¹⁵ http://www.ram.org/ramblings/philosophy/fmp/music_future.html

¹⁶ Although some would hasten to add that Beethoven had already gone further than this.

¹⁷ Leon Botstein, 'Innovation and Nostalgia: Ives, Mahler and the Origins of Twentieth-Century Modernism' in J. Peter Burkholder, ed. *Charles Ives and His World* (Princeton Press, 1996), p. 46.

“modern curiosity cabinets, treasure chests brought back from an imaginary journey”¹⁸) and the way in which they can weave in amongst ‘real’ recollections and become the fantasy which inspires a composition. In the Postface to *Central Park in the Dark* (1906), Ives describes the piece as intended to be a “picture-in-sounds”¹⁹, and then goes on to list the various characters, animals and events, on a hot summer night, which the piece portrays – there are many sections of my own work which could be described in an exactly similar way and I have occasionally written narratives and descriptions of scenes from imaginary films, as well as pure word association, in order to determine the sounds that a particular collage should comprise. However, *incongruity* is an important factor in the collages that I make and the juxtaposition of ‘impossible’ or, at least, unlikely elements is often featured in my work.

The quick-fire zaniness and frenzied performance pace of Spike Milligan’s classic radio comedy *The Goon Show* [2] which foreshadows jump-cut editing, was an inspiration to generations of comedy writers, and, via the recordings of some of them which I used to enjoy, also heavily influenced my sense of pace, timing and structure. Milligan’s propensity for surreal flights of fancy which cause the narrative to veer off in absurd and unexpected directions is one of the key influences on my fantasia *Bicycle*, a statement which can be readily checked by comparing it to the excerpt from the episode ‘The Call of the West’ which is provided on the reference CD. Milligan’s gag about playing “the dying actor” followed immediately by a gunshot and a terminal yelp must surely have inspired The Pythons’ recurrent device of ending their sketches with a gunshot, and certainly inspired a similar cadential device which I use in my last portfolio piece, *The Blind Watchmaker* (05:56).

¹⁸ Claudia Hellmann, *Joseph Cornell* (Prestel Verlag, 2000), p. 3.

¹⁹ Quoted in Leon Botstein, ‘Innovation and Nostalgia: Ives, Mahler and the Origins of Twentieth-Century Modernism’ in J. Peter Burkholder, ed. *Charles Ives and His World* (Princeton Press, 1996), p. 43.

A number of the composers encompassed by this chapter composed one or only a few pieces of collage music but are now almost entirely noted for their later work. James Tenney's classic *Collage #1 ("Blue Suede")* (1961) [3] is well-known, but it is also well-known for being almost the only example of this kind of music in Tenney's oeuvre. And although much more commonly associated with his later 'holy minimalism' works, Arvo Pärt composed a series of early works exploring the collage technique. The example given on the musical reference CD is the last movement of his *Symphony No. 2* (1966) [4] which features an episode that influenced me greatly as a student: out of the clouds of violent, atonal material a gentle and unexpected quotation from Tchaikovsky's 'Album for Children' (*Süsser Traum*) emerges, which then seems to explode (a device which I use literally at the end of my *The Blind Watchmaker* [25:15]) into more aleatory; but finally the sweet cadence of the Tchaikovsky wins the day. One writer informs us that

Pärt's collage technique involved the insertion of borrowed musical material, from composers such as Bach and Tchaikovsky, into his serial structure. This material included not only small quotations but also larger sections of basically unaltered music of various 17th through 19th century composers. However, while the collage technique added elements of traditional tonality to his compositions, the basic integral dodecaphonic structure remained the same.²⁰

Over the next decade the language of sound collage was unexpectedly essayed and explored in remarkable ways by a pop group and a comedy team – The Beatles and Monty Python's Flying Circus. These two groups certainly provided me with my first sense of being shown, and perhaps allowed to enter, 'another world'²¹ – some kind of sonic equivalent to Walt Disney World (about which more later) – and subsequently, the invention of my own 'world' has been a dream that composing allows me to pursue. The excitement and wonder of seeing one of those 'portals' which Keenan describes above open up, like the rabbit-hole in Lewis Carroll's *Alice's Adventures in Wonderland*, the looking-glass in the same's *Through the*

²⁰ http://www.musicolog.com/part_collage.asp

²¹ I am reminded of a reviewer's comments on the back of Idries Shah's *Caravan of Dreams* (Octagon Press, 1968), "Like the marvellous dream-landscapes you entered with fairy-tales as a child."

Looking-Glass, the wardrobe in C.S. Lewis's *The Lion, The Witch and The Wardrobe*, or the door which Mary, in Frances Hodgson Burnett's classic, finds to *The Secret Garden*²², happened for me upon hearing the enigmatic 'fade-out' which The Beatles were experimenting with around the time of *Magical Mystery Tour* (1967). The classic example of this is the psychedelic radio-collage *mêlée* that embellishes the fade-out of *I Am The Walrus* [7].

I recall sometimes preferring these moments to the actual songs themselves, especially, for instance, the innovative, strange and comical message which repeats itself indefinitely as the stylus gets stuck in the playout groove of the album *Sgt. Pepper's Lonely Hearts Club Band* (1967) [8], the cyclic, backwards flutes at the end of *Strawberry Fields* (1967) [9] and the echoing piano melodies which make the dreamlike coda to the song *Magical Mystery Tour* (1967) [10]. My personal discovery, as a student of music, that these moments can be subjected to musical analysis and that their 'secrets' can be revealed (in terms of both their music-theoretical content and their sound production treatments) and can then be rationalised and reconciled with examples from many other musical languages²³ opened the door to my investigation of composition. Undoubtedly, my curiosity for these ornamental, often throw-away fragments led to a desire to explore similar sonic worlds, and I am sure that some of the exploration of sounds in my collage work has its unconscious template in these moments in The Beatles' music. The most significant instance of Beatle collage music (and correspondingly the most influential on my own style) is, of course, Lennon's *Revolution 9* [14] on *The Beatles* (1968, known as '*The White Album*'). Ian MacDonald writes:

²² Or the moment when a school-teacher secretly follows one of her pupils through the door of a blue police-box in a junk shop and discovers that it is the doorway to a spacecraft known as the Tardis which is bigger on the inside than on the outside in the first episode of the television series *Doctor Who*. Literature is abundant with examples of the metaphor of the 'doorway to a magical world', especially in science fiction and in mysticism.

²³ For instance, the cyclic modality which tends to dominate The Beatles' exploration of what they called 'random' gives it a similar dreamlike quality to that which contributes to the hypnotic effect of much of Steve Reich's work, similarly I am still fascinated by the sound of 'backwards', as were/are The Beatles (guitar solos), Jimi Hendrix (also guitar solos), Radiohead (backwards track on the album *Insomniac*) and John Oswald [23].

By far The Beatles' most extreme venture into 'random', this eight-minute exercise in aural free association is the world's most widely distributed avant-garde artefact...One of the most striking instances of the communicative power of pop, *Revolution 9* achieved a global exposure never imagined by the artists who pioneered its techniques. While the cut-up texts of Burroughs, the collages of Hamilton, and the *musique concrète* experiments of Cage and Stockhausen...have remained the preserve of the modernist intelligentsia, Lennon's sortie into sonic chance was packaged for a mainstream audience which had never heard of its progenitors, let alone been confronted by their work.²⁴

The accessibility of Lennon's collage, partly due to its cultural and historical context, but also, significantly, its musical context, surrounded by and incorporating material of a popular (i.e., non-elitist, mass-communicative) nature, has become an extremely important concern of mine – perhaps due to the equal position of musics from popular and experimental fields in my musical life; and *Revolution 9* seems to me to be the epitome of this kind of aesthetic 'balance'. This extraordinary composition, which I remember hearing when very young, never seemed to me to be disturbing or 'dark', as it is sometimes described; rather, it made perfect sense. I am still more attracted to the shape, choices of source material, juxtapositions and mixing (in the studio sense) that this work presents than I am to many compositions of a similar sound-world by Berio and Stockhausen, perhaps because the aesthetic sensibility manipulating it is that of a pop musician who is primarily concerned with the direct meaning and effect which he considers it to be making, without having any 'deep structural' or genre-specific musical language agendas. Emphasising a similar point, MacDonald has argued that

(Lennon's) main artistic guide...was his own imagination – and it is this reliance on creative instinct which makes *Revolution 9* in retrospect superior to its more organised and articulate 'serious' equivalents...Nono's similar *Non consumiamo Marx* [a collage work made up of slogans recorded on the streets of Paris during the May '68 riots]...entirely lacks the pop-bred sense of texture and proportion manifested in *Revolution 9*. Like that of his colleagues in late Sixties 'revolutionary' music, Nono's art is an expression of the detached analytic mind – of 'the head'.²⁵

²⁴ Ian MacDonald *Revolution in the Head* (Pimlico, 1998), p. 251.

²⁵ *ibid.*, p. 255.

Whilst I disagree with MacDonald's dismissal of Nono's method of writing as 'detached', I have, in my own work, developed a musical language which has more in common with Lennon's collage than with those of the "vaunted avant-garde composers of the time"²⁶, making similar aesthetic and gestural choices to those that I make in pop production²⁷. I have also recently realised, on re-listening, how profoundly my senses of structure, pace and 'timing' have been influenced by the television shows and albums made by the comedy team Monty Python's Flying Circus. Particularly in *Bicycle* and *The Blind Watchmaker*, my work echoes, for example, their use of surreal repetition and variation. My favourite example of this is the 'How to recognise different types of tree from quite a long way away' sketch:

Voice Over (JOHN) and CAPTIONS:

'EPISODE 12B'

'HOW TO RECOGNISE DIFFERENT TYPES OF TREE FROM QUITE A LONG WAY AWAY'

'NO.1'

'THE LARCH'

Photo of a larch tree.

Voice Over The larch. The larch.

Courtroom: a judge sitting at higher level and a prisoner in the dock.

Judge (TERRY J) Mr Larch, you heard the case for the prosecution.....

(several minutes later).....

Voice Over (JOHN) and CAPTIONS:

'AND NOW'

'NO.1'

'THE LARCH'

Photo of a larch tree.

Voice Over The larch.

²⁶ Ian MacDonald *Revolution in the Head* (Pimlico, 1998), p. 255.

²⁷ This is discussed with specific reference to my use of music technology in chapter 2 of this paper.

Voice Over and CAPTIONS:

‘AND NOW’

‘NO.3’

‘THE LARCH’

‘AND NOW . . .’

Picture of chestnut tree...

Voice over The horse chestnut.²⁸

Another structural device that The Pythons employ is when the material appears to have got caught in a loop which seems unable to resolve itself, like the “No-one expects the Spanish Inquisition” sketch, where the only way out is for something decidedly *final* to happen. In *Bicycle*, the ‘stylus being scratched across the record’ sound²⁹ is twice used as the only possible remedy to the repetitious state into which the music has got itself (as if the person listening to the ‘record’ has taken the matter into their own hands!) and this device is borrowed from opening of the album *Monty Python’s Previous Record* (1972) [17].

Although it is commonly argued that the Pythons did for television comedy what the Goons did for radio, their *albums* are their most innovative work for me. They had a three-sided album (where one of the sides had two grooves on it, and depending on which one you accidentally accessed, you would hear different material), and they invented a whole range of structural, gestural and diagetic³⁰ games (at one point it is claimed that the wrong record has been put in the sleeve, another that the record is one of several being listened to in a booth in a record shop) which have had their influence on my music. Whilst The Beatles’ exploration of sound collage tends to work with the *simultaneous* (superimposition), the Pythons’ sonic

²⁸ Graham Chapman et. al., *Monty Python’s Flying Circus* (Methuen, 1990), pp. 29-39.

²⁹ cf. *Bicycle*, 13:19 and 23:31.

³⁰ “*Diagetic* is a term for the music that seems to issue from a source within the narrative of a film (such as a radio, singer or trumpet player). In contrast, *non-diagetic* is the term for music that accompanies the action in the film (the source of the sound is not visible).” Keith Negus, *Popular Music in Theory* (Polity Press, 1996), p. 90. These terms are commonly extended to refer to the positioning of sounds in relation to any accepted or purported frame, for example in a radio play there might be diagetic material (sound effects) and non-diagetic (incidental music).

humour tends to work with the *subsequent* (juxtaposition), and I would say that the playing with, and tension between, these dimensions constitutes part the *grammar* of the language of composition which I have been developing, although, as I will describe later in this paper, I was for a long time content with allowing the horizontal to be shaped by automatic processes.

As an aside, it is worthy of mention that Jimi Hendrix's *Electric Ladyland* album (1968) explores studio techniques in some cases reminiscent of both The Beatles and The Pythons; backwards solos, jump-cuts to a new section, the exact repetition of a previous event to cause structural rupture; but, in terms of adding colourful codas to songs, where The Beatles dip a toe in the water, Hendrix is deep-sea diving. On the track *1983...(A Merman I Should Turn To Be)*, he creates a studio tone-poem using electric guitars, percussion and effects processing to portray two lovers who decide to live underwater, and there are several minutes of this texture before anything remotely like rock music returns. Once again, this type of collage works primarily with superimposition, primarily due to the improvisatory, hands-at-the-mixing-desk way in which pop musicians would create it; *Revolution 9* was made in a similar manner.

Using contemporary, digital equipment, the procedure is usually very different, mainly due to the use of a computer 'mouse' to select and change elements – that is, the tendency is to change one aspect at a time, and record several 'passes' in order to have simultaneous dynamics – although it is possible to use a hardware 'surface', which looks and behaves like a mixing desk with faders and knobs that can be simultaneously altered, and on which any control can be assigned to change any aspect of the software. I prefer not to work in this way, as I usually have a specific, programmable plan for each dynamic change, rather than trying to manually change many elements 'on the fly'. As I have become more and more concerned with

making bold gestures, I have found that drawing a geometrically perfect fade-in curve using what is called the ‘hyperdraw’ facility on sequencers achieves a more vivid effect.

1967/68 were the golden years of collage; also in 1967, Lukas Foss was to experiment with musical ‘borrowing’ in his classic *Baroque Variations* [12], a composition which explores a similar theme to Arvo Pärt’s earlier *Collage Sur B-A-C-H* (1964) and is also strangely reminiscent of Webern’s orchestration of Bach’s *Ricercare* (1935). He has written that

these compositions are not so much “variations” on three familiar pieces of Baroque music as they are “dreams” about these pieces. Except for minor additions they are almost entirely fashioned with the notes of the Baroque compositions. The original is fragmented, the fragments are juxtaposed, superimposed. Perhaps the most puzzling thing about the Variations is the technique of “deletion”, not by omitting, cutting, but by playing inaudibly. The emerging out of and submerging into inaudibility gives the music its quality of a dream.³¹

But the figure who has most inspired my compositional ambitions, and who has achieved in pop music legendary status for trying (and failing) to create the first complete album using solely the techniques of collage I am exploring is Brian Wilson of The Beach Boys. While The Beach Boys are most commonly associated today with their earlier surf-inspired pop, their songwriter Wilson, who has never fully recovered from the breakdown he suffered as a result of this heroic effort to create the pop masterpiece *Smile* (1967), was working ahead of The Beatles’ production of *Sgt. Pepper* (1968), and, more ambitiously, was exploring the design of mobile panels of sonic textures, sections of songs and cross-referential thematic movements of music³² by having groups of session musicians in the studio, building up arrangements as he went – a compositional process far in advance of any other pop musician of the time:

³¹ Lukas Foss, liner notes to the album *Baroque Variations*, Nonesuch: H-71202, 1968.

³² “I had a lot of unfinished ideas, fragments of music I called ‘feels’... and I planned to fit them together like a mosaic.” Brian Wilson, *Good Vibrations* (Bloomsbury Publishing Ltd, 1993), p. 131.

If music students in 100 years' time want a masterclass in the development of compositional technique in 20th century popular music they should listen to the *Smile* tapes. To hear *Heroes And Villains* [13] stripped to its Bach-meets-barbershop raga roots is to understand just how perfectly realised every single component was within a Brian Wilson composition.³³

The famous cut-up track from this period, just about the only finished piece of his *Smile* jigsaw-puzzle, is the single *Good Vibrations* (1967); where this was to fit into the overall design is anyone's guess, and it was never intended to be a separate entity. At record fairs and over the internet, one can build (and indeed I have built) a seemingly never-ending collection of almost-finished pieces, sketches, out-takes and other miscellaneous tantalising glimpses of what *Smile* was to be and, bearing in mind that he was layering the multi-track vocal arrangements himself most of time, and unable to use manuscript to convey his idea to the players, it is a staggering near-achievement and one which has informed my own approach.

The collage structure of *Smile* must have been extraordinarily time-consuming to co-ordinate and a considerable challenge to the imagination of its composer. Had he used the score as a mapping device (as would have Stravinsky when organising the block forms of *Symphonies of Wind Instruments* or *Petrushka*³⁴) or been able to employ the computer-based digital recording studio (as do many contemporary exponents of the form, e.g. the Japanese art-pop musician Cornelius [25]), there would have been some respite from the endless studio manipulation, reorchestrating and rearranging of jigsaw-puzzle pieces which *Smile* required. But Wilson was able somehow to keep an instinctive grasp on the structure and pace of *Smile*, and, here again, collage and comedy share a gestural grammar. He explained at the time that *Heroes and Villains*, the mooted centrepiece suite for *Smile*, was going to be

³³ Rob Chapman, 'Unfinished symphony', *Mojo* (May 2003), p. 64.

³⁴ Stravinsky also figures in my musical thinking, particularly for those pieces about which I hope it could be said that the "montage of various fragments is based upon wittily organisational procedure", as Adorno said of *Petrushka*. Quoted in Jonathan Cross, *The Stravinsky Legacy* (CUP, 1998), p. 31. Cf. musical excerpt [23], John Oswald's take on Stravinsky's *The Rite of Spring*. An example of 'collage collage'?

...a three-minute musical comedy. The whole album is going to be a far-out trip through the Old West. Real Americana. But with lots of interesting humour. I think it's going to be a big humour trip. There's even going to be talking and laughing between cuts.³⁵

These comments at once conjure up the spirits of Ives, Cage, Nancarrow, John Zorn, John Oswald, Captain Beefheart, Walt Disney, James Tenney, even *The Goon Show* episode 'The Call of the West' (1959) [2] – but I am especially intrigued that Frank Zappa was applauded for introducing exactly these kinds of innovations to pop music with *We're Only In It for the Money* (the *Sgt. Pepper*-cover parody album) (1968), and *Lumpy Gravy* (1968) [15]. His use of the term 'humour' to describe the kinds of timing and juxtapositions to which this way of composing is analogous appeals to me enormously, and has become an increasingly important consideration in my work; of course, it was Zappa who famously asked *Does Humour Belong in Music?* An alternative title for my *Bicycle* might be 'Music for an Imaginary Cartoon', and Zappa's elaborate and ambitious collage composition *Gregory Peccary* (1977) [20] could certainly be described in the same way: listening to this piece is like watching a television cartoon with the picture turned off. John Zorn has also cited cartoon music as an influence³⁶.

An overlooked classic of collage music is John Tavener's *The Whale* (1968), the Apple label recording of which has been out of print and unavailable for many years; yet it certainly seems to have made a big splash at the time:

1968 was a year of discovery and innovation in the pop as well as the classical world: Tavener had six significant new works premiered, among them 'The Whale' which made his reputation. It uses the then highly fashionable collage, pre-recorded tape, amplified percussion and a chorus using loudhailers: an Iconoclasm which Tavener has since turned his back on. 1969 saw the premiere of his 'Celtic Requiem', another Sinfonietta commission - a work which combines the rituals of a mass for the dead, with children's playground games and catches. The Beatles began to take note: Ringo Starr was given a tape of 'The Whale' and Tavener met John and Yoko for a dinner and music evening in Kensington – the next day Lennon had decided to issue Tavener's music on the newly formed Apple label.³⁷

³⁵ Brian Wilson, *Good Vibrations* (Bloomsbury Publishing Ltd, 1993), p. 150.

³⁶ See page 22.

³⁷ <http://www.britishclassicalmusic.com/jtlife.html>

In an uncanny mirroring of career moves, Tavener, like Pärt, is now only famous for his ‘holy minimalism’ style and these early experimental collage works seem to have been quietly forgotten. Regardless, the influence of ‘minimalism’ is strongly apparent throughout my portfolio; modal, repetitive patterns and the shifting, shimmering effect caused by phasing are featured in sections of *Carnival of Light*, *Bicycle* and *The Blind Watchmaker*. Of the minimalists, it is probably Steve Reich’s work which has most inspired and informed my exploration of this kind of material – I love *Music for 18 Musicians*, *Variations for Winds, Strings and Keyboards*, *Different Trains* and *Electric Counterpoint*. Throughout my portfolio I have organised the pitch material in ways which could be considered to be in, by turns, modal, tonal, free twelve-note, pitch field and alternative tuning arrangements, but one consistent feature of the way in which I have tended to construct my compositions is the use of masses of sound built up of repetitive cells – and those sections where the material is diatonic, and has a regular metre, are particularly reminiscent of Reich’s work, although I would also point to Lutoslawski’s mobiles as an influence in those sections where the material is chromatic.

My pastiche is not intended to be taken as parody³⁸; the moments where I caricature Erik Satie, Messiaen or Steve Reich, for instance in my use of his setting of speech excerpts to musical patterns (used in *Bicycle*, borrowed from *Different Trains* (1988) [22]), are merely my wanting to visit the ‘world’ their music inhabits – out of love, not cynicism. I occasionally find Frank Zappa’s appropriation of others’ music not wholly well meant, and I have hoped to avoid this approach. It is *Different Trains*, moreover, which is Reich’s most influential work for me because of the collage, sampling and extra-musical meanings which it seems to contain. It is this same combination of elements which, for me, make *Christian Zeal and Activity* (1973) [18] and *The Chairman Dances* (1985) the most influential works in the John Adams canon. The incongruous relationship and interplay between string ensemble writing and recorded

³⁸ Although, there are certain passages which I do think of as *parody* - but always meant affectionately.

speech in the former, and the way in which the post-minimalist motor-rhythms blossom into Hollywood-style film-scoring in the latter, attract me much more than his ‘pure music’ composition, and their influence can be heard in the *navigation* and *metropolis* sections of *Carnival of Light* respectively³⁹. Chapter 4 contains a detailed account of these passages.

For his classic collage piece *The Sinking of the Titanic* (1975) [19] Gavin Bryars assembled a sonic miscellany that includes a string ensemble playing the hymn which it is believed was being played as the ship went down, a tape recording of a survivor of the disaster recalling her memories, a music box and various other instruments and tapes. As I commented in the Introduction to this thesis, *Titanic* is a classic example of collage that works primarily with superimposition to achieve its effect. There is a subsequent aspect, of course – the piece still moves through time – but the sense of *collage* is not brought about by jump-cut editing contrasting sections together in the way that, for instance, John Zorn has become noted for, but rather through allowing the disparate materials to sound in various simultaneous configurations. On his use of block structure in *Forbidden Fruit* [21], Zorn has written

Cartoon music is a very strong influence in the way I put together the disparate elements of my pieces. To me, that’s one of the biggest compositional problems. It’s something all artists have to deal with, whether they’re working on canvas or on screen. Stravinsky and Carl Stalling, who was the composer responsible for the soundtracks to many of the great Warner Bros. cartoons of the forties, were successful at that. Their mastery of block structure completely changed the way I see the world.⁴⁰

³⁹ In these and other sections, the influence of the work of Philip Glass and Arvo Pärt are also apparent. I would cite Pärt’s *Arbos* (1977) and *Passio* (1982) as key works for me, and certainly influential on the opening of *Winter Wonderland*, where I use sampled real strings (audio instruments) for the first time. Glass’s style also makes a tongue-in-cheek ‘on-vinyl’ appearance as the grand opening of *The Blind Watchmaker*.

⁴⁰ John Zorn, liner notes to the album *Spillane*. Elektra: 79172, 1987.

Taking a radically different approach from Zorn both aesthetically and legally, John Oswald's *Plunderphonic* is a commercially unreleased (but available) album of collage pieces he composed in 1989 which each playfully manipulate an item of 'found sound' [23]. David Keenan has described Oswald's music with the following: "Using sonic quotes for his building blocks, [he] morphs, stretches and transforms them into hallucinogenic pieces where Elvis Presley jams with Cecil Taylor, and Tim Buckley drifts like a ghost through the Elektra vaults...[His] discovery of pre-existing recordings as a sound source liberated composition from the specialists"⁴¹. Regarding the legality of using material taken from copyrighted sources, Keenan notes that "...with no profits generated, it [his album *Plunderphonic*, which borrows heavily from copyrighted commercial music sources] didn't leave a lot for Sony's lawyers to go after on behalf of their client. And though Oswald openly acknowledged that he had created the whole track from sampled [Michael] Jackson material, Sony have yet to prove that he had done anything illegal"⁴². The major aesthetic difference between Oswald's collage music and mine is that I only occasionally incorporate samples from pre-recorded material (for example, various BBC sound effects records) – the majority of the material which I use in my collages is created by me and then manipulated *as if* it were a sample. See chapters 2 and 3 of this thesis.

A number of much more recent examples of collage music have powerfully demonstrated that it is a still-fresh and relevant genre in which to be working. Django Bates's *City in Euphoria - World in Chaos* (1996) [24] splices a large and eccentric jazz ensemble (which includes a chicken) with a grotesque text mimicking a world-weary radio newsreader. Japanese pop-artist Cornelius, whose music has been described as "glittering surface, dissonant juxtapositions, the foregrounding of incidental noise, a parade of genre fakes, the displacement of history and location"⁴³, is at the forefront of contemporary collage music and shares something with many

⁴¹ David Keenan, 'Undoing time' in *The Wire* (May 2002), p. 44.

⁴² *ibid.*, p.44.

⁴³ David Toop, review in *The Wire* (January 2002), p. 52.

of my favourite artists – The Goons, The Pythons, The Beatles, Mel Brooks⁴⁴ – that is, playing with the diagesis of the medium. The albums *Fantasma* (1998) [25] and *Point* (2002) are full of delicious examples of the ways in which the digital recording environment (and music generally) is capable of turning in on itself, of how surreal and convoluted the self-referencing of studio music can get. Cornelius makes recorded music about recorded music.

Collage music made with digital equipment can be edited to flash rapidly from one recording to another, to move between live recordings and music sequenced with ‘audio instruments’ (which are made up of fragments of *recordings* of acoustic instruments); one can employ electronically generated software-synthesiser instruments which can *resemble* acoustic instruments but also create completely abstract sounds; and then, going even further, it can all be recorded (‘bounced’) to a single audio file and brought back in as part of an even bigger collage, time and time again, with no loss of quality. All this is explored and toyed with to the fullest extent by Cornelius, within the general framework of a pop album. On *Fantasma*, a plethora of witty diageic games are played, for example the structural turning points of one song being marked out by someone apparently stopping the ‘tape’ on which the song is being listened to, then fast-forwarding it to the next bit. In *The Blind Watchmaker*, I use a similar device; in the middle of one section it sounds as if a different section of the piece is being listened to on a portable radio being carried past⁴⁵ (08:16-08:40). A recurrent gesture in my compositions is the rapid repetition of a small piece of audio – an imitation of the ‘CD getting stuck’ phenomenon which is often the cause of irritation and great amusement in restaurants⁴⁶.

⁴⁴ In *High Anxiety*, Mel Brooks’s Hitchcock spoof, two characters are driving along having a conversation which is becoming more and more tense, and the soundtrack becomes more and more dramatic until suddenly the orchestra *playing the soundtrack* drives past in a bus. Also, in *Spaceballs*, the Darth Vader spoof called Dark Helmet decides what to do next by watching the *video* of *Spaceballs*, and a glorious moment of conceptual comedy occurs as he reaches the ‘now’ of the film and the video screen goes off into an infinite feedback loop.

⁴⁵ And also, earlier in the piece, a stylus being lowered onto vinyl, as if we were listening to an LP (00:43).

⁴⁶ cf. *Winter Wonderland*, 04:58.

Another example where Cornelius's work shares a similarity with my own is the lengthy collage-within-a-collage at the end of *Fantasma* (1998), where a kaleidoscopic sequence of excerpts from the rest of the album is flashed past, almost as if being 'channel-hopped'; in effect, presenting a series of nostalgic sonic postcards of the album's journey. The entire episode is also populated by what sound like sonic cartoon characters busily bouncing around the stereo picture, references to and samples from television and records. This is classic 'postmodern pop', although The Beatles have examples of similar techniques⁴⁷, and in the last section of my *Winter Wonderland*, I present an ambient, synthesised landscape over which the whole of the preceding composition is played, backwards and time-compressed (15:46-18:17). Despite its influence coming fairly late in my project, Cornelius's work has been a revelation; it has consolidated the aesthetic concerns of my own work by doing similar things in his extravagant pop music that I have attempted to do in my more abstract studio compositions.

Another, more lateral influence on my work is worthy of mention here. I noted earlier that I have always been attracted by the work of musicians who seem to have created their own 'world' of sound, a sonic fantasy land which they appear to have either imagined and conjured up or, in some cases, purport to have actually *come from* (see Sun Ra)⁴⁸. Envisaging an imaginary world and then trying to make (or *discover*) it is the prerogative of every artist and composer, and certainly every child, and I am convinced that my fascination with this idea was

⁴⁷ George Harrison's *Blue Jay Way* on *Magical Mystery Tour* has fade-in backing vocals which are made up of psychedelic fragments and loops from the rest of the album – but the classic non-diegetic moment in The Beatles' canon is, of course, John's hollering self-quote of "She loves you, yeah, yeah, yeah" at the end of *All You Need Is Love*, two songs which seemed separated by an age of maturity.

⁴⁸ Avant-garde jazz musician Sun Ra famously insisted on having come from another planet, bringing that planet's indigenous 'cosmic' music with him. Part of our fascination with eccentric, wildly independent characters such as Sun Ra is that we are compelled to find out if they are genius, madman or illusionist, and this curiosity partly explains my attraction to the creators of 'worlds'.

hugely inspired by having visited Walt Disney World in Florida as a child, where this creative approach has surely come to its largest and most wonderfully bizarre fruition. Looking through the souvenir book which I brought back to England with me, it strikes me that the fantastical juxtaposition of history, legend, science, superstition, Victorian fiction and traditional stories which the 'World' of Walt Disney presents and which seems to 'make sense' to its audience, suggests something very telling about the mind's readiness to accept the most far-fetched of fictional propositions through narrative and, ultimately, collage⁴⁹.

My last reference, which concludes this selected history of collage music, is to a radio show which is currently being broadcast (2003) on the experimental London radio station Resonance 104.4fm. The show is called *The Harmon E. Phraisyar Show* and through communications with the creator of the show (who calls himself Xentos Fray Bentos) I have obtained an excerpt of the for inclusion on the musical reference CD which is commercially unavailable, and which also displays an uncanny aesthetic affinity with my own work. The clip is from an episode called "Bag Dad's Army", originally broadcast on 29/03/03, and it seems an appropriate way to conclude this chapter as it recalls the spirits of many of the artists I have discussed here: The Goons, The Pythons, Frank Zappa and even Charles Ives.

⁴⁹ I am also aware of the philosophical work done on this subject by Jean Baudrillard, wherein he proposes that Disney World is an attempt to disguise the fact that America *itself* is Disney World. He points to the absurdities of the culturally eclectic nature of contemporary 'post-modern' societies as set against the coherent 'grand narratives' of 'nation', 'history' and 'culture' which they attempt to sustain.

Composition and Computers:
The Landscape of Studio Music

Since I have always preferred making plans to executing them, I have gravitated towards situations and systems that, once set into operation, could create music with little or no intervention on my part. That is to say, I tend towards roles of planner and programmer, and then become an audience to the results.⁵⁰ (Brian Eno)

Of course a composition needs some kind of stamp, a sense of cohesion.⁵¹ (John Zorn)

Greg Ulmer has suggested that “photographic representation may be described according to the collage principle. Indeed, it is a collage machine (perfected in television), producing simulacra of the life-world.”⁵² This notion has an immediate and obvious equivalent in sound with digital recording, as experienced in a domestic setting using a hi-fi system. In what has been called the ‘armchair listening environment’, the contemporary music listener is able to move around the world, travel through time, and edit, juxtapose and select from every conceivable style and genre. In more recent years, thanks to the advent of affordable digital home recording studio equipment, it has been not only possible but easy and common for the musician/composer to create professional music recordings in this same space. In the 1980s there was a thriving amateur music community based on the art of making and circulating

⁵⁰ Brian Eno, quoted in David Cope, *Computers and Musical Style* (OUP, 1991), p. 5.

⁵¹ John Zorn, liner notes to the album *Spillane* (1987). See Appendix III for details.

⁵² Gregory L. Ulmer, *The Object of Post-Criticism* (Pluto Press, 1993), p. 85.

cassette-based home recordings⁵³ which featured hissy, enigmatic free improvisations or rock songs, with hand-drawn tape covers, but this scene has now been completely supplanted due to the advances in home studio recording and the advent of the ‘recordable’ CD. Digital recording, computers powerful enough to process audio, sequencing software and ranges of thankfully cheap, but nonetheless professional, quality microphones, keyboards, synthesisers and samplers, are now all readily available to the auto-didact domestic sound-collage artist.

The music in my portfolio was composed, edited and mastered on an Apple Macintosh G4 computer running the Emagic Logic Audio sequencing software package including Emagic’s software sampler EXS24 (in order to expand which I later purchased several CD-Roms of orchestral samples, examples of which can be heard particularly prominently in *The Blind Watchmaker* and *Bicycle*) and its software synthesiser ES1 (whose tone-generating facilities I explore most explicitly in *Conversation* and sections of *Bicycle*). Some of the earlier compositions also incorporate Roland JV-1080 synthesiser sounds (especially in *Carnival of Light*) and were arranged on Cubase VST then exported to Logic for editing and mastering.

During the early period of my project, when I was most intensely pursuing what seemed like extremely out-of-reach compositional ambitions (due to my relative ignorance of the *technological* exigencies of my desired creative situation), I developed a serious interest in the accelerating contemporary advancements in the field of music technology (and consequently held a part-time lecturing post in the subject). Once, however, I had reached a point where my compositional requirements were being met uncompromisingly by the equipment I was using, my involvement and interest in music technology waned. Nevertheless I feel it is important for me to summarise some of the ways in which I have used music technology throughout this project, not least because the compositions which I have created have clearly been born out of

⁵³ See Robin James ed. *Cassette Mythos: The New Music Underground* (Autonomedia Book Series)

music technology to some extent, but also because some of the innovations I believe I have made are part of my research. I will not, however, be focusing on the *technical* aspects of my methods of working in the studio, as that information is irrelevant to the work which I am presenting, but rather I would like to draw attention to some of the ways in which my use of computers, experiments in computer programming and working with digital audio sequencers have helped to shape the compositional language which I have developed over this project.

2.1 Algorithmic Composition

The desire to create a music which appears to happen ‘as if by magic’ is one which has seized great numbers of musicians, some if only for a short time, ranging from the most notably ‘for’ (Cage, Xenakis, Eno) even to those apparently ‘against’, to which this account of the first performance of Messiaen’s *Modes de valeurs et d’intensités* (1949) charmingly attests:

The piece had no melody, harmony, pulse or discernible rhythm. It appeared to be nothing but a series of random single notes. Stockhausen likened it to looking at stars twinkling haphazardly in the sky at night, Boulez to a carillon of bells set in motion by the wind...The young composers felt that the secret lay in Messiaen’s adoption of fixed material. To create music that sounds as if no human will has shaped it, one must set up processes that, once established, will generate the music almost automatically.⁵⁴

In the Introduction to his *Computers and Musical Style*, David Cope (1991) briefly describes a wide range of historical examples of machines which performed automated musical composition; they include the carillons of the medieval era, aeolian harps, wind chimes, wind-operated Balian bamboo rattles, the tradition of placing differently tuned bamboo tubes in water currents which would fill up, tip over and knock against rocks, cattle bells, Gothic church bells, the ‘gilded brass ball’ (which created ever-different music when rolled around), Elisha Gray’s “musical telegraph”, some examples by Cage, Nancarrow, Reich (*Pendulum*

⁵⁴ Michael Hall, *Leaving Home* (Faber and Faber, 1996), p. 86.

Music), Pauline Oliveros's *I of IV* (which uses two tape recorders to create feedback) and the many devices which have been devised by Brian Eno and Godfried-Willem Raes⁵⁵.

But finally Cope concludes that "automatic music composition is best suited to the modern-day computer and the synthesisers they control"⁵⁶, and it was to this conclusion that I too was drawn after having spent the first few years of my undergraduate composition experiments toying with music made from fractal landscape formulae, Chinese weaving patterns, stock market data and the patterns made by the water splashes on the tiled floor of a changing-room shower. The inspiration to develop a flexible composition computer program which has resulted years later in the creation of an open-ended suite of such programs which generate music according to many kinds of composer-controlled parameters came to me upon reading the following passage from Douglas Adams, in which a character in one of his novels comes across an article entitled 'Music and Fractal Landscapes':

Every single aspect of a piece of music can be represented by numbers. From the organisation of movements in a whole symphony, down through the patterns of pitch and rhythm that make up the melodies and harmonies, the dynamics that shape the performance, all the way down to the timbres of the notes themselves, their harmonics, the way they change over time...all of these things can be expressed by patterns and hierarchies of numbers.⁵⁷

Following on from these assertions, which are not dissimilar in spirit to those which laid the foundations of post-Webernian serialism, I built up a portfolio of compositions, the material for which had been generated by transcribing to score the results of some simple BASIC computer programs which I had written on a ZX Spectrum +3. Many years were now spent devising ways in which this computer data could be transferred directly to score within the

⁵⁵ Compositions which have what Emerson calls an 'abstract syntax' might also be included in this list - he gives the example of compositions structured with 'everything' from "star maps to mystical number grids and formulas". Simon Emmerson, 'The Relation of Language to Materials' in *On Sonic Art*, Trevor Wishart ed. (York: Imagineering Press, 1985), p. 27.

⁵⁶ David Cope, *Computers and Musical Style* (OUP, 1991), p. 5.

⁵⁷ Douglas Adams, *Dirk Gently's Holistic Detective Agency* (Heinemann, 1987), p. 145.

computer system, which I finally achieved by synchronising the Spectrum to an Apple Mac computer running the *Coda Finale* scoring program (sending in a ‘tap’ on one MIDI channel and data on another). The portfolio for my MMus in Composition at Exeter University (1997) consisted of compositions which were generated, edited and printed using this system, and subsequently I had a private request from the American experimental composer James Tenney (whose contributions to the field of computer composition as well as collage music are noted in the literature⁵⁸) that I make the program code for this system available to him.

The realisation that with contemporary technology it was no longer necessary for me to work with the score in order to produce the effect of a recorded performance (using audio instruments), and moreover that my interest in the concert hall had waned, I arrived at my current configuration, which has at its heart the sequencer Logic Audio, into which I feed data directly from my suite of MIDI-generating Spectrum programs. The programs are designed to respond to any compositional requirement of which I can currently conceive, although, of course, new needs necessitate the designing of new programs from time to time. They each generate a single stream of random MIDI data which corresponds to the parameters specified during the data entry sequence of the user interface, and were developed across the whole of my PhD project. They can be summarised, in keeping with the algorithmic software descriptions laid down by Hiller and Isaacson⁵⁹, as follows:

a) Random chromatic points: single notes are randomly generated from within the pitch, duration and velocity ranges specified, followed by a random pause (range specified). This kind of material is evident throughout the portfolio, most plainly in *Conversation*.

⁵⁸ He worked at Bell Laboratories, where he produced a number of significant works including *Four Stochastic Studies* (1962), *Stochastic String Quartet* (1963) and *Dialogue* (1963). His work has been, of course, very influential on my development, largely due to his classic *Collage #1* (“Blue Suede”) (1961) [3].

⁵⁹ Lejaren Hiller and Leonard Isaacson, whose experiments with algorithmic composition in producing instrumental scores led to the infamous *Illiac Suite for String Quartet* (1956), outlined their procedures in *Experimental Music* (McGraw-Hill, 1959) as described in David Cope, *Computers and Musical Style* (OUP, 1991), p. 8.

b) Random chromatic groups: as a), but instead of single notes, melodic phrases are generated whose length range is specified, again followed by a pause.

c) Random chromatic cycles: as b), only a matrix of repeat cycles is now included, so that the phrases are looped a certain number of times before a new one is generated. The results of this program can be heard most vividly in the orchestral sections of *Bicycle*.

d) Chromatic interval points: single notes, the sequence of which is controlled by a given set of intervals. Each subsequent note is determined by randomly adding or subtracting one of the given intervals to the previous. Otherwise, follows the pattern of a).

e) Chromatic interval groups: as b), except now the pattern of notes is determined by a given set of intervals, so that melodies are generated from the play of these intervals. The majority of the material in *The Blind Watchmaker* is made up of this kind of interplay.

f) Chromatic interval cycles: a matrix of cycles is set up, which loop the melodies of e).

g) Random modal points: a mode is specified, following the binary pattern which will be discussed in the next section of this paper.

h) Random modal groups: modal melodies are generated, whose contour will be quite disjunct, due to each note being randomly chosen from the whole range.

i) Random modal cycles: the melodies of h) are looped; examples of the material generated by this program are evident throughout *Bicycle*, but also the *clockwork fish* (lydian mode) and *metropolis* (octatonic mode) sections of *Carnival of Light*. See chapter 4 for further details.

j) Modal interval points: a mode is set, but also a series of 'intervals', which are now more like the 'step-wise' rule of Hiller and Isaacson. Single notes are generated, and the rule which determines the next note is controlled by the 'modal interval' parameters set by the user.

k) Modal interval groups: as j), only now melodies which incorporate the 'step-wise' modal-interval rule are generated. All other parameters are as e).

l) Modal interval cycles: a matrix of cycles is also input, which creates loops of melodies that have the same characteristics as those generated by k).

At the 'front end' of my programs is a very simple user interface which prompts for the raw data, for example by asking "Interval Matrix:", in response to which I would type in the interval data to be included in the matrix (or 'array') from which the program chooses the intervals that the stream of MIDI data about to be generated should incorporate. If, for example, I wanted to generate a melody line which included a semitone, a minor third and a fifth, I would enter "1 3 7". The statistical probability of individual values being chosen can of course be weighted by including more or less of each value in the matrix, for instance "1 1 1 3 3 3 7". In this example, the fifth would be chosen three times less often than the others. I am aware that there exist many more sophisticated methods for determining statistical probability, but I have found no compositional need to implement them into my programs. The programs also ask for other data, depending on the type of material it is intended to generate, eg, pitch range, durations, rest values, mode, rules regarding repetition, looping, phrase lengths etc.

2.2 A Catalogue of Modes⁶⁰

In order to include algorithmically generated *modal* material in my compositional language, I had to devise a method by which the principle of modes could be rendered systematic. I proceeded by exploring the representation of a mode – in the exclusive (but of course by no means universal) sense of any octave-repeating series of pitches selected from the 12-note chromatic total – as a 12-column binary number, reading left to right (i.e., with the pitch-class C as the first column and B as the last), where each column represents the inclusion of a pitch-class as a 1, its exclusion as 0. Following this rule, the two transpositions of the whole-tone scale would be represented by the following binary patterns:

1 0 1 0 1 0 1 0 1 0 1 0
0 1 0 1 0 1 0 1 0 1 0 1

and the three transpositions of the octatonic scale would look like this:

1 0 1 1 0 1 1 0 1 1 0 1
0 1 1 0 1 1 0 1 1 0 1 1
1 1 0 1 1 0 1 1 0 1 1 0

⁶⁰ My use of the term ‘mode’ is to be taken as similar to the way in which Messiaen used it, which can be characterised by the following passage: “All that is necessary for music to be modal is that it should adhere to the notes of the mode, and, this being so, it is hardly surprising that the most telling characteristics of both diatonic and non-diatonic modal music is a sense of improvisation – whether contemplative or frenetic – within a static atmosphere.” Anthony Pople, ‘Messiaen’s Musical Language’ in *The Messiaen Companion*, Peter Hill ed. (Faber and Faber, 1995), p. 19.

Given that in binary each column represents a number following the pattern 1, 2, 4, 8, 16, etc., it is now possible to render each of these modes as a denary number (i.e., according to our usual counting system). Thus, the two whole-tone modes can be expressed as 1,365 (one thousand, three hundred and sixty-five) and 2,730. By counting in binary from 1 which would be a single-note mode consisting of just the note C up to the fully chromatic mode of all twelve notes, I made a catalogue of every single mode available within our equally tempered system, along the way encountering every transposition of every 1-, 2-, 3-, 4-, 5-, 6-, 7-, 8-, 9-, 10- and 11-note modes, including all the familiar modes from plainchant, Messiaen and Eastern music, but also a storehouse of, to me, totally unfamiliar and exotic-sounding modes. An interesting concomitant of this research was that as well as establishing a simple and comprehensive categorisation of modes upon which I could base any number of generative algorithms, I calculated that the total number of exclusive octave-repeating modes available within any 12-note system is 4,095, a number which is confirmed in combinatorial music theory⁶¹.

2.3 Colliding Circles

In developing my ‘large-scale phasing’ technique as a means of generating soundscapes within which a constantly rotating set of sound-object relationships are put into motion, I have essentially drawn together techniques employed both in popular music production and in the languages of several modern classical composers, and given them a shared home in the computer-based digital audio sequencer. One Beatles song which profoundly influenced my approach to composition is their classic psychedelic collage-piece *Tomorrow Never Knows*

⁶¹Andrew Duncan, for instance, states that “It is evident that there are $2^{12}=4096$ different species in the twelve-note musical system” in the *Counting Scales & Chords* section of his article *k-Scales and k-Chords* available at www.andrewduncan.ws/CMT/CMT, which is an online reprint of an article from the *Journal of the Audio Engineering Society*, vol. 39, pp. 427-448 (1991 June). The listing of modes of which he prints a few excerpts includes, as a theoretical proposition necessary for the mathematical system on which he bases his method, the mode 000000000000 – no pitch classes. This strikes me as an anomaly from the musical point of view – after all, what is a mode with no notes? Nevertheless, this is why his calculation gives 4096 and mine 4095.

[5], the last track on the album *Revolver* (1967). In order to create the swirling, mesmerising menagerie of sound effects and musical fragments which accompanies the song, bursting in between sung lines, The Beatles and their producer lined up a series of different length tape loops culled from a collection of pre-recorded excerpts, including tapes left over from previous recording sessions for the album, and created a simultaneously improvised multi-track mix in which these various loops were faded in and out during a pass of the song. Ian MacDonald here identifies the ground-breaking nature of the inclusion of this kind of technique in a pop song production:

The tape-loop – a length of taped sound edited to itself to create a perpetually cycling signal – is a staple of sound-effect studios and the noise-art idiom known as *musique concrète*. Pop music, though, had heard nothing like this before...the soundscape of *Tomorrow Never Knows* is a riveting blend of anarchy and awe, its loops crisscrossing in a random pattern of colliding circles.⁶²

This could be considered to be a larger-scale and more complex development of the technique familiar to us, from Steve Reich's work, as 'phase shifting':

Phase shifting occurs when two tape recorders, playing the same recording synchronically, begin to run at different speeds so that the tapes no longer synchronise with each other...This sequence of events continues until the two...eventually return to unison. The technique is the same as the one Ives explored in *Calcium Light Night*, Carter in his *Cello Sonata* and Nancarrow in his *Rhythmic Study no. 27*, except that here it is stripped down to its essentials. Reich says that the importance of the phase-shifting process lies in its impersonality. Once the process has been set up, it works itself out inexorably.⁶³

In this sense, both Reich's 'phase-shifting' process, explored in *Come Out* (1966) and *It's Gonna Rain* (1967), and The Beatles' tape-loop experiment for *Tomorrow Never Knows* (1967), could be considered to be further examples of 'automatic composition' in that, in this

⁶² Ian MacDonald, *Revolution in the Head* (Pimlico, 1998), pp. 168-169. The phrase 'colliding circles' is used here drolly by MacDonald, as it was proposed as a possible title for the album *Revolver*.

⁶³ Michael Hall, *Leaving Home* (Faber and Faber, 1996), pp. 77-78

kind of set-up, the working-out of the piece's relationships, although theoretically inevitable and inherent in the moment of making the first gesture, are, in terms of the *temporal* (listening) experience of the music, 'composed as it goes along'. In exactly the same way, although in a more complex fashion, the cycles of audio data which make up the patterns in my 'colliding circles' *tableaux* immediately form a huge tapestry of relationships, fixed from the moment at which they are set up and yet giving the impression of an ever-changing soundscape – particularly when pitch is involved. The random harmonic relationships which are created when pitched materials (whether through the use of orchestral audio instruments⁶⁴ or through including sampled material which consists of discernible pitches) are employed in this process, create, for me, the most beautiful aspect of phase-cycling – and the musical serendipity which often occurs in this process can be heard at all levels of my compositional language.

The crucial difference in designing this kind of composition on a computer sequencer is that, rather than being limited by the physical aspects of preparing and spooling tape loops, one can set a piece of audio into a cycle of any length (not just the length of the tape onto which it is recorded) including, as part of the cycle, an extremely long section of silence. When The Beatles did it they had to spool the tape around the control room, holding it up with pencils. Most of the *tableaux* which I built up using this technique incorporated large 'clouds' of audio data arranged in this way, whereby a mosaic of audio fragments was set into long, cyclic patterns around one another, creating dazzling foreground bursts here and there but also long, slowly undulating stretches of audio forming a murky background wash. Often these darker, submerged colours would only become apparent if the foreground cycles' silence coincided to leave an empty window through which they could suddenly be 'seen in the distance'.

⁶⁴ The EXS24 software sampler is designed such that, on any of the channels of Logic's virtual mixing desk, an 'instrument', which is actually a collection of recordings of single notes being played by, say, the flute section of an orchestra, can be 'called up' and controlled via MIDI.

I have begun to suggest here the concept of musical objects being positioned and moved around in a sonic *landscape*. It is the ideal metaphor, and often employed as such, for conveying the ways in which sounds are conceived, manipulated and mixed in the world of studio music. Because of the nature of stereo and the way in which it apparently creates a three-dimensional sonic space in front of the listener, mixing a track is often likened in the literature of music technology to painting a picture, and would-be producers are often encouraged to explore the full breadth and depth of the ‘stereo picture’. Ives talked of a “picture-in-sounds”⁶⁵.

2.4 Imaginary Landscape

In the years during which I composed the music being presented here, I have been captivated by the idea that “recording is a dream-text, a vision of possible worlds, with the studio...as the otherworld.”⁶⁶ In order to describe the experience of listening to recorded music, and especially recorded music made up of recorded music, an inevitable but surreal (or perhaps ‘hyperreal’) development, the metaphor of visual art is often pressed into service. David Toop discusses the development of the kind of music I am interested in making in terms of the metaphor of *landscape* in *Ocean of Sound*. He points to Cage’s *Imaginary Landscape* series (begun 1939) as the ‘first’ use of this expression to describe collage music, noting that Cage composed

for a variety of sound-making devices: variable-speed turntables, frequency recordings, percussion, radios and, in *Imaginary Landscape No.5*, forty-two recordings from any source, reassembled in fragments as an electronic tape collage structured according to chance methods determined by the Chinese book of changes, the I Ching.⁶⁷

This combination of procedures (the collecting of materials from extant sources – the traditional definition of collage, especially in the visual arts – and then the application of a

⁶⁵ Quoted in Leon Botstein, ‘Innovation and Nostalgia: Ives, Mahler and the Origins of Twentieth-Century Modernism’ in J. Peter Burkholder, ed. *Charles Ives and His World* (Princeton Press, 1996), p. 43.

⁶⁶ David Toop, *Ocean of Sound* (Serpent’s Tail, 1995), p. 275.

⁶⁷ *ibid.*, p. 143

chance procedure with which to organise it all) suggests a question, the contemplation of which triggered a significant change of compositional approach about half-way through my project, i.e., did Cage *arbitrarily* utilise a generative process (the *I Ching*) to structure *Imaginary Landscape No.5*? Was it a chance meeting of form and content reminiscent of the famous surrealist “chance encounter of the sewing machine and the umbrella on a dissecting table”⁶⁸ – that is, might he just as readily have employed any number of other strategies in order to organise this material – or are generative, stochastic, algorithmic, automatic, random and chance⁶⁹ procedures the mode of composition best suited to music of a collage nature? My attraction to this idea was once significant in the musical language I been developing⁷⁰.

Brian Eno uses a similar idea; he has talked about his music as being a ‘soundfield’⁷¹ as opposed to what he sees as the rigidity of structure employed in the more common methods of composition. In his work (as in, I hope, some of my own) sounds are brought together in a fluid, organic way due to their submission to some sort of ‘organising idea’⁷². But my fascination with generative processes, as outlined in the previous part, is such that while they will no doubt continue to inspire me as a source of material with which to compose, I have concluded that they rarely generate results which in themselves constitute the complexity and subtlety of relationships with which to substantiate being presented as compositions.

⁶⁸ Lautreamont, quoted in Dawn Ades, ‘Collage: A Brief History’, in Peter Blake, *About Collage* (London, 2000), p. 42.

⁶⁹ I collect these strategies together like this because in my mind – although not necessarily in the minds of those composers with whom we might associate them – they can perform a similar function for the composer – that of generating material with which to compose, and perhaps providing inspiration.

⁷⁰ Simon Emmerson frames this enquiry neatly with the following: “*Williams Mix*” is a tape composition in which the composer...used *I Ching*-based chance procedures to determine the details of the montage...It is not the origin of these schemata which is at issue, but their existence prior to the perceptual properties of the particular materials which they create or organise”. Simon Emmerson, ‘The Relation of Language to Materials’ in *On Sonic Art*, Trevor Wishart ed. (York: Imagineering Press, 1985), p. 27.

⁷¹ And he has also said “To me, the image of the studio was rather like landscape painting...”, interviewed by Mark Cunningham in *Good Vibrations* (Sanctuary Publishing, 1998), p. 333.

⁷² I have borrowed this term from the psychotherapeutic work of Jo Griffin and Ivan Tyrell; see the journal *Human Givens* (Human Givens Publishing Ltd: East Sussex) and www.humangivens.com

At an earlier stage in my project, some remnants of which are extant in the first two compositions in my portfolio, I explored at length a technique I call large-scale phasing – allowing the shape of a piece to be determined by the changing relationships of musical objects occurring and reoccurring in different time-cycles. These *tableaux*, against I was later to superimpose more dynamic and detailed material, were made up of independent sound-objects which are set into orbit around one another so that the vertical relationships are constantly being transformed. Initially I was content to compose by simply letting these processes unfold, but I now feel that what makes a process engaging is not its mechanical inevitability but rather the composer's incisions and other incongruities with and against which it works. This has been summarised poetically by Derrida:

What is in question here, this time at least, finds itself not *displayed* but *given play*, not *staged* but *engaged*, not *demonstrated* but *mounted*, mounted with a confectioner's skill in some implacable machinery.⁷³

⁷³ Jacques Derrida, *Dissemination*, quoted in Gregory L. Ulmer, *The Object of Post-Criticism* (Pluto Press, 1993), p. 108. My italics.

3

The Portfolio of Compositions: An Overview

“...find out if this music, instead of simply playing a game of reversal and disruption, is inventing the equivalents of collage and of metaphor. Besides montage (ironic, metonymic in its mechanics, spiritually Dadaist), is musical collage (irreverent, the creator of “meaning”) even possible? Can the random encounter of a musical object be equivalent to “objective chance”?”⁷⁴ (J. Chenieux-Gendron)

“...any meeting between music and Surrealism seems, from a historical perspective, to have been irretrievably missed.”⁷⁵ (ibid.)

Whilst I have used a small amount of what are known in the popular music world as samples⁷⁶ in my pieces, the majority of the collage processes employed throughout my portfolio have consisted of the manipulating and arranging material which I have composed myself – a labyrinthine process of creating compositions-within-compositions. My method essentially involves exploring the possibilities of layering, sequencing and processing so that separately composed sound-objects can be positioned into musically effective relationships with, around and against one another. Making each piece consequently involved creating and collecting a large number of fragments – essentially the building of a large palette of materials to work with (as congruent or as incongruous as required) – and then the arranging of these materials into some kind of sequence in order to create a coherent and satisfying overall design.

⁷⁴ J. Chenieux-Gendron, *Surrealism* (Columbia Press, 1990), p. 168.

⁷⁵ *ibid.*, p. 167.

⁷⁶ A ‘sample’ is a more or less short excerpt from a previously recorded piece of music, such as a drum break or riff, which is used as the basis of, or in conjunction with, a new recording.

3.1 Form

The structure of each composition in the portfolio is naturally unique, but the pieces can be broadly grouped into four approaches to form:

(1) Early compositions *The Book* (1999), *Summer Nights Dream* (2000) and also the portfolio piece *Conversation* (2001) are generative landscapes. In *The Book* and *Conversation* the pitched parts were generated by a computer program choosing random pitches which were then being played by software synthesisers, and then the other sounds were positioned around them in various cyclic relationships. Itself an edited version of a earlier 74-minute collage, *Conversation* requires a less engaged mode of listening than the other pieces in my portfolio, although it is the only slow and contemplative work presented and is personally significant.

The imaginary conversation taking place is between myself as I was when it was composed (2000), momentarily considering returning to a much more ambient, generative method of composition⁷⁷ – represented by the synthesiser material – and myself as a child of about five or six making a cassette tape collage of talking, sound effects, interviews with people, records, television, jokes and general silliness in an overall style strangely reminiscent of that which I have ended up developing for this degree – represented by excerpts from this cassette. Three backwards excerpts from this childhood tape run through the piece, each processed with different treatments so as to disguise their close detail which, superimposed onto the wall of humming synthesiser tones, is intended to create the overall atmosphere of a dreamy, nostalgic paean to the creativity and imagination of childhood. It represents a crucial turning point in my work, because after this point I elected to completely discard the generative approach in favour of a considerably more expressive, determinant and engaged method of composition.

⁷⁷ See chapter 2 for a discussion of the suite of computer programs used to generate this material, for an exploration of ‘generative’ and algorithmic music, and a history of, and context for, my work in this area.

(2) *Carnival of Light* (2001) and *Winter Wonderland* (2001) are both episodic; they both were made by cutting out and pasting together fairly large pieces of my previous ten compositions (see the introduction to this paper) to make a backdrop of sections onto which I then ‘painted’ newly-composed material. These two pieces, the first portfolio inclusions, mark the point when I decided to work with *juxtaposition* as well as *superimposition*. Material was created in order to link the sections together and in order to project detail and animation onto the stacticity of the backdrops. I was determined that these miniature pieces, once superimposed, would give my earlier, immobile landscapes a sense of momentum and of forward motion.

Because a whole chapter of this paper (4) is devoted to describing the processes behind the creation of *Carnival of Light*, I will say little else about it here, other than to mention that while I am as pleased with the musical content as with anything else in my portfolio, the *mixes* in this composition seem to me now to be too full and dense, the production too uniform. I was yet to discover the importance of (and the skills necessary to achieve) clarity, separation and ‘space’. It also seems that I was content to let certain sections of the mosaic run for a great deal longer than I would now, so that the pace seems sluggish. Nonetheless, the grammar and style which are fully formed in *Bicycle* (2002) and *The Blind Watchmaker* (2003) have their predecessor here. For me, this composition has a sense of the excitement of discovery and, to some extent, of the melancholy of memory and the introversion of studio composition.

With *Winter Wonderland* I began to try to turn the material around and back in on itself, so that the impression is not merely that of a collage made up of subsequent blocks of material but hopefully of more of a continuously changing and writhing entity whose shifts are more startling and gestures more spontaneous. The melancholy of *Carnival of Light* is still there in places, but I do not think it is as disturbing, perhaps because it displays more of a sense of

humour - whilst composing it I had in mind an early animation by Terry Gilliam⁷⁸ which was once broadcast as part of a television program looking back at the history of The Pythons, in which Victorian Christmas card figures came to life and performed surreal actions upon one another. The final sequence, comprising fast and furious action (which is actually the entire piece up until then played backwards and projected against a wall of shimmering synthesiser tones) introduces a rate of change which was to become standard in later works.

I was determined to progress beyond the episodic form of *Carnival of Light* and so the static mobiles of that first piece are beginning to be replaced by increasingly elaborate explorations of contraction, expansion and variation. The piano figure which cycles around in the opening sequence is also an indication that I was beginning to add more musically conventional items to my collages, and the significant improvement in sound quality in this piece was due to the fact that I had fully switched to the Emagic Logic Audio sequencing program (where previously I had worked with Steinberg's inferior Cubase), and had begun to use 'audio instruments' instead of the purely synthesised sounds of the earlier work. The music was becoming more emotive, perhaps more expressive, and at times is reminiscent of a film soundtrack. The cut-up Walt Disney Christmas carol that begins at 02:17 was intended as a smiling nod towards Stockhausen's *Gesang der Jünglinge*, and pop music makes an appearance due to the use of radio samples. At 10:04 I edited in a cross-section of the earlier 74-minute composition *Conversation* in order to provide temporary respite from the speedy pace. The sequence which begins at 11:53 is made up of material collected by using scanning equipment to record mobile phone calls around Exeter, providing an interesting insight into the city's conversations.

(3) *Underground Submarine* (2001) is a rondo. A large, fairly static landscape is contrasted with a series of short pieces (created by capturing samples off the radio and turning them into

⁷⁸ Terry Gilliam is an American animator who was/is part of the Monty Python's Flying Circus comedy team.

little sonic studies) which continually interrupt it, only to find that we return to the original soundscape each time. As the piece progresses, the jaunts away get longer and longer. The main body of this piece is bookended by a sequence which runs forwards at the beginning of the piece and backwards at the end. *Underground Submarine* represents the first move in my new, purposeful direction and as such I wanted it to have a distinct and unequivocal structure and a powerful, kinetic sound. It is set in motion by having two types of material, (a) a bleeping sonar submerged in a sinister, deep-sea world and (b) frenzied, looping fragments of radio interference and the crushing of sonic objects to the point of distortion.

This is probably the most dark and disturbed composition in this portfolio because it sets itself a fairly strict structural agenda then appears to struggle its way through it, at times bursting through and exploding into paroxysmal activity only to be forced back into form like a head being thrust underwater. Figuratively speaking, the piece then looms towards its tragic but inevitable end whereupon ghostly mermaids seem to be serenading a melancholy machine but are suddenly hammered into submission by a series of savage swipes and stomps.

(4) *Bicycle* and *The Blind Watchmaker* are both fantasias. By this point I was determined that my compositions should be a totally unbridled and limitless adventure through the most engaging, dynamic and surreal world I could possibly summon up; *Bicycle* has a *joie de vivre* about it, whereas *Watchmaker* has a more serious, philosophical theme (the meaninglessness of death versus the garden of heaven) – albeit ambivalently – but both pieces contain a certain amount of silliness which regularly vies with the serious material for attention. One principle I discovered and developed through these pieces which helps to provide collage music with a sense of momentum and of contrast is the continual but not necessarily regular alternation between ‘rhythmic’ material (having a pulse) and ‘free’ material (having no pulse).

Although separated by almost a year due to the considerable time it takes to create and then satisfactorily arrange this kind of material into a complete composition, these two pieces could be seen as a matching pair in the sense that they have similar formal concerns, with the second a comic tragedy to the first's tragic comedy. Having made the decision, after *Underground Submarine*, to create a brighter, more joyful and effervescent compositional language and to allow myself to incorporate elements of everything I like about what can be heard through a pair of speakers – from the most commercial music such as John Rutter's *Requiem* (1985) to the most abstract of sonic objects – not to mention Pythoneque humour, I proceeded to throw in everything (including the kitsch in sync) and created an extravaganza where anything that I could imagine happening next, however absurd or unlikely, does. I purchased an extensive set of beautifully recorded orchestral samples for use as 'audio instruments' in order to create the instrumental parts, and my language now expanded to include diatonic and melodic material, incorporating orchestrated passages which (hopefully) could easily be mistaken for an ensemble performing and a considerable amount of pastiche, parody and gags.

I tried to push my imagination as far as possible in imagining what could happen *next* in both of these pieces (both were basically through-composed) but above all I attempted to maintain a sense of tight structure, fast pacing and kaleidoscopic orchestrations, never knowingly shrinking from attempting what I would consider to be an ambitious or compositionally challenging passage, like the preposterously silly but epic 'Bollywood' section of *Bicycle* (13:21-16:30). These kinds of passages are painstakingly sequenced, orchestrated (as it were) and mixed from scratch using recorded samples of single notes played by classical musicians⁷⁹. The exotic percussion and drum parts that weave through these sections are carefully built into patterns using what is known in a sequencing program as the Matrix Editor – that is, I have not utilised any of the many pre-recorded loops or samples which are commercially available.

⁷⁹ However, the 'Les Swingle Singers sing JS Bach' section at 22:47 in *Bicycle* is sung by me.

In summary, my compositional language has developed throughout the course of this project to deal with the structural concerns of each new piece, but there have been four distinct formal phases: (1) generative landscape, where I utilise the technique of large-scale phasing (*The Book*, *Summer Nights Dream* and *Conversation*), (2) episodic, wherein I expanded my language to include working with juxtaposition as well as with superimposition (*Carnival of Light* and *Winter Wonderland*), (3) rondo, in which one continuous stretch of music is constantly interrupted by variations and diversions (*Underground Submarine*) and (4) fantasia, where a continuous flow of music creates the impression of a capricious, eclectic journey crossing styles and genres and incorporating humour, pastiche and alternating patterns of repetition versus surprise, pulse versus no-pulse etc. (*Bicycle* and *The Blind Watchmaker*).

3.2 Structure and Gesture

A fundamental problem during the composition of all of these pieces (apart from *Conversation*) was conjugation – how to structurally link one section of the montage to the next if the changeover was not inherent or implicit in the material itself. In later pieces this was such a familiar problem that two consecutive pieces would often be conceived of as coalescent in the first place – for example they might be linked by a common part, or by having the same tempo. My solutions to the problem of conjugation has included such devices as ‘the television channel being changed’⁸⁰ and ‘the CD getting stuck’⁸¹ as well as more straightforward interruption, jump-cut editing and all manner of Goon/Python-esque cadential devices including a gun shooting the music (followed by applause)⁸², ‘the record’ being put on⁸³, ‘the record’ being violently taken off⁸⁴, the orchestra exploding⁸⁵ etc.

⁸⁰ cf. *Carnival of Light*, 16:46.

⁸¹ cf. *Winter Wonderland*, 04:58.

⁸² cf. *The Blind Watchmaker*, 05:56.

⁸³ cf. *The Blind Watchmaker*, 00:43.

⁸⁴ cf. *Bicycle*, 13:19 and 23:31.

⁸⁵ cf. *The Blind Watchmaker*, 25:15.

As my formal architecture has evolved from the essentially episodic to the more elaborately interwoven and serpentine my gestural language has correspondingly become more and more concerned with creative conjugation – either finding ways to link non-contiguous sections together or concocting ways in which the music can flow naturally from one mood, style or genre to the next. The interruption and bridging devices mentioned above, and also the endless list of gestures that includes fading in, fading out, shrinking, stretching, pitch changing, cymbal crescendos and gong hits are examples of the former. The sequence in *Bicycle* which runs; ensemble playing atonal material - drum machine entry - walking jazz bassline - funk drums - pastiche of The Swingle Singers singing J.S.Bach - pastiche of Walter Carlos's analogue synthesiser Bach (18:39-23:27), and the passage in *The Blind Watchmaker* where an ensemble led by a group of flutes seamlessly cross-fades to a different ensemble playing a synchronous latin-feel version of the same material (12:34-13:04) are examples of the latter.

The collage music of *Bicycle* and *The Blind Watchmaker* relies to a great extent, as does any referential style of writing, on an audience being 'in on the joke', and in this case that would entail having a wide knowledge of music throughout the twentieth century, spanning decades, genres and continents. In this sense it could be said that I am writing for a knowing audience; a student of music technology, for example, might enjoy my fond parodying of various anachronistic types of synthesiser tone. But I believe that my pieces can be enjoyed as stand-alone experiences *because* of their eclecticism. In my next chapter I examine the structure one of my portfolio compositions in closer detail, with the intention of identifying sources of inspiration and illuminating the creative processes which my composition method involves.

Carnival of Light:

An Account of my Compositional Process

Everyone ought to be working on a collection of some kind.⁸⁶ (Tahir Shah)

The collecting instinct intersects at many points with the practice of collage.⁸⁷ (Dawn Ades)

In *Revolution In The Head*, Ian MacDonald describes a near-legendary recording by The Beatles known as *Carnival of Light* (1967), and in doing so lays down an intriguing challenge:

...this 13:48 ‘freak-out’ was taped by The Beatles during an evening session following a vocal overdub on *Penny Lane*. For various reasons, it will never be released, although it may, of course, eventually find its way onto a bootleg. Almost no one outside the Apple circle has heard it and interest in it among ‘Beatleologists’ is consequently high. In fact, an enterprising fraudster could easily counterfeit a black-market version, since the real thing sounds nothing like The Beatles.⁸⁸

Given my fascination with The Beatles’ technique of including tantalising glimpses into magical worlds of sound which appear and disappear at the ends of many of their ‘psychedelic’ songs, the idea of this never-to-be-heard collage/improvisation *Carnival of Light* represented to me the Holy Grail of enigmatic Beatles recordings – and also inspired in me the

⁸⁶ Tahir Shah *Trail of Feathers* (Weidenfield and Nicholson, 2001), p. 84.

⁸⁷ Dawn Ades, *Collage: A Brief History*, in Peter Blake, *About Collage* (Tate Gallery Publishing Ltd, 2000), p. 42.

⁸⁸ Ian MacDonald, *Revolution in the Head* (Pimlico, 1998), p. 198.

creative curiosity which produced this composition which, although it was eventually to grow into a much more ambitious project, was initially sketched as an orchestral arrangement of my imaginary version of this elusive Beatles recording. In the end, my *Carnival of Light* (2001) has developed into something more like a surreal, dreamlike ‘album’ of tracks which are made up of material very reminiscent of the style of music that The Beatles created for their fade-out soundworlds, consisting as it does of five originally unconnected compositions which have been glued together (and given a Coda section which echoes the first) and then treated as a single canvas, over which I have painted figures and characters which relate across the whole.

I began *Carnival of Light* by imagining a series of static, ambient *tableaux*, building on my former experiments with large-scale phase cycling. I had already created a composition using this technique called *The Book* (1999) which had set dozens of different length audio parts into cycles of different sizes. For instance, the sound of a match being struck would occur every five minutes, whereas a recording of a book being written in and then closed would return every four minutes. In a sense illustrating the principle of factorial calculation, this meant that the two recordings would not occur simultaneously again for twenty minutes. When a huge number of these cycles are put into place, the resultant factor becomes so high that the piece is, in effect, infinitely long (i.e., longer than a human life.). I enjoyed the musical effect of *The Book*, which employed indeterminate synchronicity in terms of both the representational sounds and the pitch material, so I set about creating similar soundscapes for *Carnival of Light*. Given the largely sequential structure of the piece, it seems appropriate to deal with each section in turn. The titles given here are the working titles which I dubbed each section before bringing them together to form the finished composition. *See Appendix I for details.*

4.1 Carnival of Light (00:00-00:40)

Whilst searching for appropriate material with which to build my orchestral impression of The Beatles' 'freak-out', I listened to *Sgt. Pepper's Lonely Hearts Club Band* and arrived at my first self-penned *tableaux* brief, inspired by the 'glimpse into a world' which is conjured up by the swirling, psychedelic calliopes and fairground organs at the end of *Being for the Benefit of Mr. Kite* (1967) [11], the last track on side one of *Sgt. Pepper*. As the song reaches its conclusion, the carousel collage which has previously accompanied the song's instrumental waltz section signalled by the line "And of course, Henry the Horse dances the waltz" (which I have always thought resembles in spirit the music from the TV adaptation of Roald Dahl's *Tales of the Unexpected*) is allowed to express one last, splattering burst of sound before the show is over. Wanting to see if I could develop a more lingering look into the dark circus world it suggests, I investigated George Martin's account of the genesis of this effect:

I had in mind the little organ in Disney's *Snow White*...a steam organ, a calliope - what they have on carousels...If you go to a fair, the first thing you hear is the sound of the merry-go-round, against the background racket from the crowd. In the early days, those carousels with the horses going up and down were powered by steam, and so, therefore, were their pipe-organs...If we wanted that authentic fairground atmosphere, we had to have one...I gathered up all the recordings of steam organs I could find...snowed pieces of tape all over the control room...put them together again...[and] in this peculiar way we made up a patchwork quilt...of different pieces swirling around...[which] formed a chaotic mass of sound...There was the fairground atmosphere we had been looking for.⁸⁹

After reading this story, I felt compelled to reproduce George Martin's experiment in the digital domain, taking advantage of the computer sequencer's facilities for cutting, looping and applying random transformation operations on pieces of audio. I too collected up as many recordings of old fairground organs as I could, transferred them digitally onto my computer and then set about performing a series of random operations to cut them up, speed them up, slow

⁸⁹ George Martin *Summer of Love: The Making of Sgt. Pepper* (Pan Books, 1995), pp. 90-92.

them down and reverse some of them, finally allowing them to loop in arbitrarily different phase cycles. What I ended up with sounded remarkably similar to the final flourish of *Kite*, but with the added advantage for which I had been searching – that the piece was set into perpetual orbit by the phasing cycles and so it could last as long as I wished. I then set the whole assemblage against an imaginary (ie synthesised) orchestra playing randomly generated material which represented my first impression of what The Beatles' *Carnival of Light* may have sounded like; across this canvas I painted a number of other fairground-related sounds including crowds, a 'laughing clown' and carnival announcements. Initially I had produced a 74-minute (ie full CD) long version of this soundscape which, whilst being quite an experience to listen to in its entirety, also produced enough variety and shape that I was able to cut out my favourite few minutes for use as the Introduction and Coda sections of *Carnival of Light*.

4.2 navigation (00:40-04:10)

Whilst working on this first section, I woke up after a quite restless night and wrote the following in my book of *tableaux* descriptions:

I had a dream of a modern sailing ship at sea, lost in the night to a raging storm and finding its way into a terrible nightmare – the night-song of the sirens. The ship groaned its way through the wailing wind, the haunting song filling their minds, and finally they entered a dark dreamworld where the ancient mariners who had lost their souls to that horrible sound appeared as deathly phantom companions, the great ship's bell ringing out a mourning toll to their plight. The past submerged into the present as each member of the crew lost his senses to the sirens' song, and the old ship's wheel turned and turned. Time dissolved, and they seemed resigned to their terrible destiny, forever to navigate this midnight sea, their heads drowning in the night-song of the sirens.

Undoubtedly lacking in its poetic merits, this passage nevertheless provided me with suitable inspiration for the next section of *Carnival of Light*. I listened to Gavin Bryars's *The Sinking of the Titanic* (1975) [19], Barry Guy's *After the Rain*⁹⁰, and began to put together a collection of stormy, nautical sounds in an attempt to portray the atmosphere of my dream. I came up with the idea of having two synthesised string orchestras, one static, one performing gigantic, slow *tutti glissandi*, in order to create the uneasy sense of lurching up and down on the waves against the horizon, and added a selection of partly fortuitous, partly incongruous musical and spoken radio excerpts ("This was heavy rain", "I'll get my coat") and snippets from earlier compositions. I finally made a number of violent ruptures or 'incisions' into the texture in order to 'break the spell' and remind the listener of the artifice of the experience.

I was also inspired by a student theatre production of *The Tempest* which I recalled seeing during my undergraduate years at Dartington, which employed a similar, though mainly visual, series of puns and allusions in order to create its atmosphere. I usually try to employ some elements which create a certain surreal ambiguity, or even a touch of nonsense, to the overall mix, and as such this moaning stretch of music could be seen as a darker equivalent to the production on The Beatles' song *Yellow Submarine* (1966) [6] – wherein, under the direction of George Martin, "whose experience as a producer of comedy records now came into its own, they raided Abbey Road's 'trap room' for its trove of noise-making implements, including chains, whistles, hooters, hoses, handbells, and an old tin bath. In his element, Lennon filled a bucket with water and blew bubbles in it while the group's chauffeur Alf Bricknell rattled chains in the bath..."⁹¹. My *Underground Submarine* also reflects this tale⁹².

⁹⁰ I also re-read David Toop's *Ocean of Sound* (Serpent's Tail, 1995), an endlessly inspiring musical source-book which charts a history of what he calls 'ambient sound' from Debussy on.

⁹¹ Ian MacDonald, *Revolution in the Head* (Pimlico, 1998), p. 183.

⁹² Also, in both of these pieces, and in *Bicycle*, I have been influenced by George Martin's orchestral score for The Beatles' *Yellow Submarine* film, especially its *Sea of Time* and *Sea of Holes* sections.

4.3 midnight pointillism (04:10-09:10)

Desiring now to follow the morbidity of the “navigation” section with something more in keeping with the spirit of my original orchestral/sixties brief for *Carnival of Light*, something far more colourful and explosive, I turned at this point to my love of that peculiar musical adventure which is sometimes known as ‘pointillism’. The historic mission to split instrumental music into its smallest constituent parts⁹³ and subsequently develop a new, total organising principle, filtering down from Schoenberg, through Webern, taking a sideways glance at Messiaen’s *Mode de valeurs et d’intensités* (1949) and then blossoming into the work of Boulez and Stockhausen, whilst few believe in its rhetoric any more, produced what are for me some of the most beautiful, far-reaching and fantastic compositions of all time. In preparing to work on this section I came across the following, unintentionally comical passage depicting a long-gone era, in Reginald Smith Brindle’s classic *The New Music*, and became more determined than ever to create a ‘pointillistic’ soundscape:

Cults are necessary to artists, writers and composers for their own protection and to create a feeling of artistic security. To be alone is distressing to all but the greatest few, the prime movers. To others it is a psychological and artistic necessity to belong to some movement, some cult which is a protective umbrella against outside dangers...The avant-garde has therefore been necessary as a cult, even though the title once meant one thing (following Webern) and by now can mean almost anything else (sham oriental rites, group happenings, audience hypnosis, way-out jazz, etc.).⁹⁴

The thought of the fierce, ‘cold-minded’ serialist Pierre Boulez actually turning out to be ‘artistically insecure’ does not, however, shake my belief in his *Pli selon pli* (1968) as one of the great musical achievements of the twentieth century in terms of its scale, intensity and

⁹³ I am reminded, thinking about the modernists, of the teaching story of the boy who pulled a fly apart, and then, looking at the pile of legs, wings and so on, wondered ‘where the fly had gone’...

⁹⁴ Reginald Smith Brindle, *The New Music* (Oxford University Press, 1975), p. 16.

complexity, and for its kaleidoscopic orchestrations⁹⁵. I examined my collection of recordings of pointillistic compositions, among them Cage's *Concerto for Prepared Piano and Orchestra* (1951) and Stockhausen's *Kontra-Punkte* (1953) looking for source material with which to begin building my collage. It has often been remarked that the irony of the 'total serialism vs. indeterminacy' debate was that the results often sounded remarkably similar and so, with this in mind, I programmed my random music-generating programs to create vast clouds of randomly scattered pitch material, and then set up a *Gruppen*-sized fantasy orchestra.

On the subject of using soft-synths⁹⁶ and soft-samplers⁹⁷ instead of live musicians, it often occurs to me that the 'synthetic' orchestra allows me to create something like a 'Disneyland of Modernism'. This idea goes a long way towards defining what it is that attracts me to the computer-based digital studio as a realm of composition and although later in the portfolio I began to work with 'audio instruments'⁹⁸, I am still drawn to the charm of music made with *less* convincing means. On the one hand, this adds to the 'hyperreal' nature of the experience; but on the other, so much music is made this way today (and not forgetting the prevalence of

⁹⁵ Célestin Deliège calls it "astounding" and goes on to describe it as "one of the most unexpected encounters of our age, between a composer whose essential creative activity is rooted in his reflections on contemporary musical language and a writer [Mallarmé] who, a century earlier, underwent a parallel experience through the medium of verbal language." Célestin Deliège, 'The convergence of two poetic systems' in *Pierre Boulez, A Symposium*, William Glock ed. (London: Eulenberg Books, 1986), p. 99.

⁹⁶ i.e., software-based synthesisers which are operated on a computer as opposed to the hardware synthesisers which studios used to have built into racks. The home computer is currently powerful enough to run the operating systems of hundreds of pieces of equipment which used to require a separate unit, and so the need for 'outboard' equipment, that is, hardware, has been minimised.

⁹⁷ See previous footnote.

⁹⁸ Audio instruments are widely used in the TV and film industries, where even the most impressive 'orchestral' incidental music is today very likely to be made by a composer working with a computer-based studio. For example, Hans Zimmer's incidental music for many hugely successful Hollywood films has in recent years included whole sections created using the 'virtual orchestra', or, at least, a mixture of both real and virtual. Interestingly, the virtual parts are sometimes more effective: *Pirates of the Caribbean* is an example, about which it has been reported to me by one of his assistants that there is no live percussion anywhere in the film because it was agreed that the sequenced ones sounded better!

the musical recording aesthetic known as ‘Lo-Fi’⁹⁹) that it should no longer be thought of as a contentious issue. I have imagined that I will never, in any case, return to composing with a score, and my experiences in working with contemporary orchestral players have sometimes been so disappointing that I no longer see ‘the concert hall’ as the place where music happens. In this composition I am again constantly contradicting the diagesis, fracturing the relationship between foreground, middleground and background, confusing the already fragile relationship between the recorded and the synthesised performances and interrupting the apparently self-perpetuating, generative flow of the texture, introducing stuttering, repetition and unexpected superimposition. It becomes apparent that there is, as it were, *source material*, and that the ear is often being compelled towards the way in which the source material is manipulated and transformed, rather than being invited solely to meditate upon the relationships *within* the source material. That is not to say that I am *not* interested in provoking a deep mode of listening, as I hope the compositions themselves demonstrate, rather that I am interested in trying to encourage a continual *changing of focus*; a dynamic mode of perceptive ‘altitude’.¹⁰⁰

4.4 summer nights dream (09:10-13:25)

The intuitive and usually surreal collection of ideas, dreams, games, puns, literary references and musical desires which go towards the gathering together of material for a collage can often seem curiously far-fetched. After reading a delightful but little-known book by Sir Arthur Conan Doyle titled *The Coming of the Fairies*¹⁰¹, in which he makes a heart-warming attempt to argue his case for the authenticity of the Cottingley fairy photographs, I created this

⁹⁹ ‘Lo-Fi’, as opposed to ‘Hi-Fi’, is a musical genre which celebrates the aesthetic of the sounds of old, but mainly inexpensive, musical equipment, recorded in a similarly ‘home-made’ fashion. See *The Wire* magazine (The Wire Magazine Ltd: London), where this term is regularly used - as are ‘Modern Composition’ and ‘Avant Rock’, terms which I have used elsewhere in this paper to denote genres.

¹⁰⁰ I will be discussing the notion of perceptive *altitude* in some depth in the last chapter of this paper.

¹⁰¹ Sir Arthur Conan Doyle, *The Coming of the Fairies* (Pavilion Books Ltd, 1997). The full-length version of *Summer Nights Dream*, on CD 5, includes many whispered excerpts from this book, wherein young girls and old eccentrics give true accounts of their experiences away with the fairies.

soundscape, over a series of warm summer evenings, as an attempt at conjuring up the effect of a ‘musical dream’. The scene for this musical dream is an allegedly enchanted wood, where Sir Arthur has fallen asleep while waiting for some supernatural appearance and he begins to dream about fairies coming out of the woods from every direction playing magical flutes¹⁰².

I love the fact that this Victorian gentleman (my fascination with which kind of figure makes an appearance again in *Bicycle*, when Erik Satie takes a psychedelic bike ride¹⁰³), determined to be rational, scientific and boundlessly enquiring of nature and yet when confronted with a child’s unsophisticated hoax was sent into a reverie of hopeful, mystical lyricism:

The series of incidents set forth in this little volume represent either the most elaborate and ingenious hoax ever played upon the public, or else they constitute an event in human history which [is] epoch-making in its character. It is hard for the mind to grasp what the ultimate results may be if we have actually proved the existence upon the surface of this planet of a population...which is only separated from ourselves by some difference of vibrations.¹⁰⁴

4.5 metropolis (13:25-20:25)

Dawn Ades’s classic textbook *Photomontage*, and in particular the part entitled ‘The Marvellous and the Commonplace’, is an extraordinary treasure-house of visual and literary pieces which have provided inexhaustible inspiration for me in the development of my portfolio. A glance at the pages concerning the work of Max Ernst, where prints of his photomontages and paintings, including *Here Everything is Still Floating* (1920) and *Health Through Sport* (c. 1920), will reveal an aesthetic world with which I feel a close affinity – surreal, dreamlike, absurd and yet beautiful images which somehow seem at once profound and silly, often comical. Photomontages have frequently and directly inspired me to make sound-collages. The following passage from *Photomontage* describes very closely what it is that I am

¹⁰² In *Ocean of Sound* (Serpent’s Tail, 1995), Richard Maxfield is quoted as describing how he imagined “...a multi-channel composition intended to evoke [the] antiphonal chirping of birds and insects on a summer night...”, p. 181. This perfectly describes what I imagined for this piece. See Appendix I for a further explanation of *Summer Nights Dream*, an earlier piece, which is presented on CD 5.

¹⁰³ cf. *Bicycle*, 11:20-13:19.

¹⁰⁴ Sir Arthur Conan Doyle, *The Coming of the Fairies* (Pavilion Books Ltd, 1997), p. 7.

attempting to achieve with my studio composition work, illustrating vividly what it is that visual and sonic collages have in common:

By the juxtaposition of elements by nature strange to one another, hallucinatory landscapes are formed; commonplace objects become enigmatic when moved to a new environment. Our thought struggles to encompass them and is baffled, or a new thought is made for them. Different realities are thus revealed. Before Dada and Surrealism began to pursue 'the systematic derangement of the senses', as Rimbaud called it, by pictorial as well as other means, the fascinating paradox of being able to distort reality with the medium which was its truest mirror had often been explored...¹⁰⁵

Once again I find myself drawn to the Victorian contribution to the field, the world of photomontage having been pioneered by images which were enthusiastically discussed as 'photographic amusements' in the popular nineteenth-century books on photography, and some of which feature at the beginning of *Photomontage*. The themes of 'amusements', impossibilities and 'fakes' feature throughout all my compositions; in the previous section my inspiration had come from a classic photographic hoax, and in this new section I was drawn (although not for the first or the last time) to the task of creating a sonic response to the photomontage work of the likes of Max Ernst, Hannah Hoch and, on this occasion, Paul Citroën's *Metropolis* (1923). In preparing the material for my own take on the classic 'metropolis' theme, I researched a number of musical evocations of the cityscape, including Glass's score for *Koyaanisqatsi* (1982) and Reich's *City Life* (1994). I got the idea for the 'switching between channels' mechanism of the piece when I read this passage by Ades:

The violent changes of scale and simultaneous perceptions of different things implicit in the vision of the Futurist city were...ideal matter for photomontage. The contrast between the surging masses in the city and its gigantic buildings, the sense of exhilaration in their very dominance, and the beginnings of panic...are all expressed in the piled images of Citroën's *Metropolis* or Podszadecki's *Modern City: melting pot of life*...Citroën's work was perhaps an inspiration for Fritz Lang's film of the same title, a nightmare moral fable of a future society.¹⁰⁶

¹⁰⁵ Dawn Ades, *Photomontage* (Thames and Hudson Ltd, 1986), p. 107.

¹⁰⁶ *ibid.*, p. 99.

4.6 clockwork fish (20:25-24:37)

Since childhood I have been fascinated by musical automata, the mechanical and the clockwork means of making music which have been devised over the centuries. The contemporary computer, as I discussed in chapter 2 of this paper, is the ultimate automatic music machine, although that is not to say that it has actually *supplanted* any of the countless other means (some of which I have surveyed) by which the different energy sources available to us can be turned towards generating sound. For the final, ‘clockwork fish’ section of *Carnival of Light* I decided to turn my hand towards creating a computer-driven random number soundscape filled with little musical boxes, chimes and clocks, partly inspired the short but beautiful sound-collage which concludes the Pink Floyd song *Bike* (1967), a studio painting of the lyric:

“I know a room of musical tunes
Some rhyme, some ching
Most of them are clockwork
Let’s go into the other room
And make them work...”

While working on this final collage, I happened to come across a visual collage hung on the wall in Bath University titled *The First Patent Clockwork Fish*, and this gave me the idea that my collage could be an impression of what the inside of a magical mechanical fish might sound like. I employed my modal loop-writing computer program (which I had designed in order to build precisely this kind of ambient, Minimalism-influenced texture, but which also proved to be invaluable in generating material for certain sections of all my compositions) in order to give the piece its floating, lydian modal atmosphere, and against this background created another series of little cartoon-like *Plunderphonic*-esque vignettes. The most characterful of these is the ‘Learning the Alphabet’ sequence (22:04-23:11) in which the unsuspecting learner is prompted to imitate increasingly bizarre and difficult sounds until the malfunctioning teaching machine drives itself into a surreal and probably violent frenzy of didactic exhortation.

Conclusions

Collage is an excellent means of exploring the principles of composition.....one of its advantages is that it permits the artist to arrange and re-arrange the compositional elements until he is satisfied with their relationships...¹⁰⁷

In any creative endeavour a considerable amount of time is spent on deciding how to determine the basis upon which one artistic mark is deemed to 'go with' another, in developing a language of marks, gestures and shapes. In music, countless systems, strategies and methods of composition have been devised to address this problem, to provide this rationale, and virtually every school in the arts is devoted to establishing principles by which its constituent parts are thought to 'belong with' one another. And yet it would seem, judging for instance by the artistic, aesthetic and, indeed, financial success of the eclectic Disneyland model, that the very act of *presenting* any given juxtaposition of materials leads to a sort of make-shift aesthetic unity due solely to proximity – things 'go' together because they *have been put* together. The mind will happily register the collage effect – 'these items are incongruous' – and *simultaneously* welcome the new arrangement as a coherent, harmonious and even beautiful work of art. Try as we might, discordant always gives way to concordant – the most offensive compositions are eventually hailed as works of great beauty – once our perception adapts.

In studying the languages created by composers, we attempt to identify the constituent parts, the marks, gestures and shapes, and then to describe the way in which they are bound together, the design by which the composer has woven the threads. We tend to delight in the exotic examples of apparent incongruity thrown up by the search which follows this particular analytical pattern; how, for instance, does Messiaen manage to convince us that birdsong, classical Indian rhythms, symmetrically arranged modes and synaesthetically envisioned

¹⁰⁷ Meilach and E.T. Hoor, *Collage and Found Art* (Studio Vista, 1964), Introduction.

colour-chords could possibly sound so beautiful, so *right*, together? In my mind, Messiaen is like the Walt Disney of twentieth-century music; they invented comparably elaborate, unlikely, fabulously populated ‘worlds’ where the incongruous are magically brought to life alongside one another and historical and geographical borrowings and references are made to interact with fantastic, often comical, inventions. A composer’s language is, to me, his ‘world’ – one can visit the ‘world’ of Boulez, Ives, Schoenberg, Reich, Ligeti, Arvo Pärt – and sometimes within these worlds the apparently silly or humorous can happily intermingle with the philosophical and serious as I hope they do in some of my pieces.

In talking about a *language* of studio composition, I have certainly been attempting to describe the characteristics and nature of the material with which I choose to work, but more importantly, to portray the way in which these materials are brought into *relationship* with one another – the ‘world’ which I attempt to create for, and with, them. I have been talking about ‘collage’ because this term seems to me to be the closest and most familiar way of describing the aesthetic which interests me, and the fact that I have often tended to work with the juxtaposition and superimposition of elements, invoking a tension between musical objects which are not customarily brought near to one another. And yet the way in which things which were previously *far* are brought *near*, a characteristic of the most familiar collages, like the amusingly haphazard cultural configurations (advert/Donald Duck/John Lennon/porn model/giraffe, etc.) which are thrown up by the sixties-style ‘magazine collage’ pieces such as those found in Peter Blake’s private collection¹⁰⁸ or the Japanese folk song/classical string quartet/turntable-scratching cut-up violence of John Zorn’s *Forbidden Fruit* (1987) [21], is, upon closer analysis, no more or less cohesive than any other assembly of items – they merely challenge our perception of whether images or sounds should be considered congruent or incongruous. What is it, then, that distinguishes ‘collage’ from ‘non-collage’?

¹⁰⁸ See Peter Blake, *About Collage* (Tate Gallery Publishing Ltd, 2000), p. 16.

In order to approach answering this question, I would like to suggest the notion of compositional *altitude*. We are familiar with considering the concept of altitude in the geographical sense by imagining ‘zooming in’ to examine the smallest of elements visible to the eye, for instance the detail of the fossils on rocks, and then ‘zooming out’ to see how the rocks appear, from an aeroplane, to form a coastline around the country; although we know that no such line actually exists, it is useful to be able to suspend this knowledge and view the scene from a different altitude in order to draw maps and so on. It is also possible for us to mentally conceive of changing our focus from the infinitesimally small particles we have discovered at the smallest atomic level, to imagining the whole universe, from which latter vantage point the Earth would appear as small as the molecules of the former. This ‘change of focus’ is occurring all the time; in one moment we are able to move from considering a detail to looking at ‘the whole picture’ – and it is precisely this which I would argue is going on when we examine what it is that distinguishes collage music from other types of composition.

Composing, in the traditional Western mode, is customarily concerned with performing this shift of altitude by proposing the ideas of *form* and *content*, by working with the arrangement of the smallest of items (notes, timbres, etc.), which are then organised into different scales of structures and forms (phrases, sections, movements, etc.). But ‘zooming out’ even further, we have the notion of *genres* – which, in attempting to delineate, we are forced to acknowledge have ‘fuzzy’ borders, but which are nonetheless useful – and, going even further, the idea of *music* which, again, we are constantly obliged to accept, cannot really be clearly distinguished from the rest of experience. It is at this level of perceptual shifting that the principle of musical ‘collage’, of which I have been giving examples, comes to bear. With the rise of digital recording technology, it has never been easier for musicians to work with musical elements at these considerably different ‘altitudes’, moving in a moment from the tiniest of adjustments of temporal placement, timbre and tuning, to viewing the entire composition on-screen in order to

adjust the way in which whole sections relate to one another – and, unlike the score, these adjustments are instantly executed, the results capable of immediate assessment. The very nature of the computer sequencer ‘arrange page’¹⁰⁹ depends upon the flexible, dynamic *view* of the user; moreover, an entire section of music can be ‘bounced’¹¹⁰ together and brought back into play as a single item, whereupon it can be manipulated as readily as a single note.

Collage music, then, is concerned with the manipulation of musical objects whose *altitude* is different from those with which composition is usually thought to be concerned. A composer working with collage, such as Berio in his *Sinfonia* [16], is liable to decide to use a section of previously composed music, or to include text material from a deliberately disparate array of literary sources, where previously it was considered important to aim for creating a sense of *unity*. Collage, in a sense, celebrates the potential failure of this endeavour by preferring instead to acknowledge and emphasise the holes, the ‘glue’, the artifice – and also the artistic process itself. We are alerted to the fact that a larger piece of music (larger, that is, than a single note, which nonetheless could conceivably have also been ‘borrowed’ from a Mahler Symphony) has been included in this new work, and our sense of focus is shifted; we are now no longer concerned with the note-by-note workings which we may have been following in previous sections of the piece, but now with the manipulation of larger, more bold *generic* and *stylistic* compositional gestures; borrowings, recognition, references, quotes, pastiche, parody. At this point we are liable to think ‘collage’, and all that this word conjures up – authorship, what it might ‘mean’, our eclectic, post-modern society, even that it is merely a joke – or worse, a desecration. After the separate premiere of Lukas Foss’s *Variation III (Phorion)* [12] from his *Baroque Variations*, one reviewer was moved to write

¹⁰⁹ This term refers to the main editing ‘page’ of a contemporary music sequencing program.

¹¹⁰ ‘Bounced’ is a term inherited from the days of tape multi-track machines, meaning to record several tracks down to one single track – originally to save space due to the limited number of tracks available.

The thing reminded me of Marcel Duchamp's celebrated gesture of painting a moustache on Leonardo's 'Mona Lisa'. Shortly after that, Mr. Duchamp stopped creating art altogether and devoted himself to chess. A similar move by Mr. Foss might benefit the future of the art of music.¹¹¹

Phorion is Greek for 'stolen goods', but the quotations in Foss's piece are arguably, however, no more or less 'stolen' than any of the other material – all the notes have, after all, been played before – but, paradoxically, they are equally just as 'original', the experience of hearing Bach in the context of Foss being an utterly different one from that of hearing Bach in the context of Bach. The same applies to Bach in Pärt, Mahler in Berio and Mozart in Zorn.

I have discussed the influence on my work of a wide range of music from a number of disparate genres – classical, pop, jazz, experimental. In my examination of collage music, I hope to have indicated that by focusing on a particular concept, illustrative examples can be drawn from a huge, colourful palette of musical histories from different traditions. I also hope to have demonstrated that music based on the principles of collage is possessed of a rich, powerful language which is entirely suited to the contemporary, digital world of new music¹¹², and one which is as popular as ever with the contemporary pioneers of sonic experimentation.

Collage is now so much a part of everyday...culture, fuelled by numerous technological changes in methods of reproduction, that the diverse strands of its histories may be overlooked. It has played a prominent role in closing the gap between elite and popular art, and questions of aesthetic values are no longer determined in the way they once were.¹¹³

¹¹¹ Winthrop Sargent writing in the *New Yorker*, quoted in the liner notes to the album *Baroque Variations*, Nonesuch: H-71202, 1968.

¹¹² As an example of the profile which collage music is currently achieving, *Mojo* (May 2003), p. 106, a fairly mainstream music magazine, recently carried the following review, of a band called *DalabaFrithGlickRiemanKihlstedt*, demonstrating that whilst the twentieth century was undeniably a time when every imaginable and unimaginable musical experiment was undertaken, it may well happen all over again: "This doesn't push the boundaries between musics so much as push the boundaries of what music is, full stop. Instruments are beaten at random – and that's just the strings – while a wasp gets stuck in a trumpet and someone seems to be having a haircut. Astonishing." (Angus Batey).

¹¹³ Dawn Ades, 'Collage: A Brief History' in Peter Blake, *About Collage* (Tate Gallery Publishing Ltd, 2000), p. 43.

Appendix I

The Portfolio of CDs: An Overview

Appendix I

The Portfolio of CDs: An Overview

As the practical component of my research I have submitted six compositions on three CDs which together form my composition portfolio, two further CDs consisting of compositions produced earlier in this project (see below) and a musical reference compilation, CD 6 (see Appendix III). The portfolio of CDs is presented in the following order:

CD 1 Total running time 44:19 (including an 8-second pause between tracks)

Track 1: *Carnival of Light* (2001) 25:11

Track 2: *Winter Wonderland* (2001) 19:00

CD 2 Total running time 54:07 (including an 8-second pause between tracks)

Track 1: *Conversation* (2001) 25:11

Track 2: *Underground Submarine* (2001) 28:48

CD 3 Total running time 60:00 (including an 8-second pause between tracks)

Track 1: *Bicycle* (2002) 29:14

Track 2: *The Blind Watchmaker* (2003) 30:37

CD 4 Total running time 74:00

Track 1: *The Book* (1999) 74:00

I outline my reasons for submitting this composition in the introduction of this thesis (p. 5).

CD 5 Total running time 74:00

Track 1: *Summer Nights Dream* (2000) 74:00

As I have outlined in various parts of my thesis, earlier in my compositional project I made a series of ten long, static sound collages which I have called *tableaux*, and which employed the technique I have called large-scale phasing (as explained in the *Colliding Circles* section of chapter 2). These *tableaux* were then used as a source of material from which to create more carefully shaped and edited collages, and drawing from which I made the first three pieces in my portfolio, *Carnival of Light*, *Winter Wonderland* and *Conversation*. From *Underground Submarine* onwards, my pieces were conceived in a more through-composed manner, with much smaller panels of material being created, their place and function in the structural mosaic having been determined beforehand. However, because the overall shapes and sounds of the early ten tableaux are sufficiently dynamic in themselves (albeit in a very slow-moving way), and because the body of work represented by these pieces is quite considerable, I have decided to present one of them here for reference. *Summer Nights Dream*, then, on CD 5, is a seventy-four minutes-long sound collage, a full discussion of which can be found in chapter 4.

CD 6 Total running time 66:00

Tracks 1-26: Musical Reference CD

This disc consists of musical excerpts, references to which can be found throughout the thesis marked by a track number in square brackets, eg [1]. The excerpts are intended as a musical accompaniment to and illumination of the text. See also Appendix III: The Musical Reference CD, which lists the tracks on the CD and also serves as the discography of my thesis.

The CD portfolio is bound into the back of this thesis, pp. 80-82.

Appendix II

A List of Compositions

Appendix II

A List of Compositions

This is a list of all my compositions and performances to date, beginning with the work I submitted for my MMus at Exeter University (1996-97). Bold type indicates submission.

Earthman Come Home for violin, clarinet, 'cello, piano+effects and tapes (1996)

Performances: Exeter University, 20/2/97, Kokoro Ensemble

 Poole Arts Centre, 3/12/97, Kokoro Ensemble

 The Anvil, Basingstoke, 13/3/98, Kokoro Ensemble

Magical Melodies for clarinet and piano (1997)

Performance: Exeter University, 15/3/97, EU Workshop Duo

SS for mixed brass ensemble and tape (1997)

Performance: Mint Methodist Church, 21/6/97, Exeter University Sinfonietta

Prayer for trumpet, two mixed choirs, organ, percussion and tape (1998)

Performance: St. Stephen's Church, Bournemouth, 28/3/98, Kokoro Ensemble

A Hundred Flowers for flute, clarinet, percussion, harp, viola, bass and tape (1998)

Performance: Exeter University, 26/6/98 EU New Music Ensemble

***The Book* for clarinet, viola, piano and CD (1999) - submitted for reference (CD 4).**

Performance: Dartington College of Arts, 1/12/99, The Barton Workshop

The following compositions are a set of ten 74-minute CD pieces which were intended to be the portfolio at an earlier stage of this project; material from these pieces was then cut out and re-worked to form sections of the first two compositions in my final portfolio submission. Some of the titles of these pieces are the same as the titles of the finally submitted compositions because they were the starting point for building the new piece. Some of the titles are also duplicated as the working titles of sections of the portfolio piece *Carnival of Light* for the same reason (as outlined in chapter 4 of this thesis); or, in the case of *Earthman Come Home*, is re-used from a piece which was submitted as part of my MMus portfolio.

Carnival of Light (2000) CD - not submitted.

Navigation (2000) CD - not submitted.

Midnight Pointillism (2000) CD - not submitted.

***Summer Nights Dream* (2000) CD - submitted for reference (CD 5).**

Metropolis (2000) CD - not submitted.

Sunday Night, England (2001) CD - not submitted.

Earthman Come Home (2001) CD - not submitted.

Clockwork Fish (2001) CD - not submitted.

Winter Wonderland (2001) CD - not submitted.

Waterfall (2001) CD - not submitted.

Lastly, these are the compositions in my CD portfolio:

***Carnival of Light* (2001) CD - submitted (CD 1).**

***Winter Wonderland* (2001) CD - submitted (CD 1).**

***Conversation* (2000/2001) CD - submitted (CD 2).**

***Underground Submarine* (2001) CD - submitted (CD 2).**

***Bicycle* (2002) CD - submitted (CD 3).**

***The Blind Watchmaker* (2003) CD - submitted (CD 3).**

Appendix III

The Musical Reference CD

Appendix III

The Musical Reference CD

This section provides a listing of the examples on the musical reference CD (CD 6) as well as a discography of my thesis. The tracks are presented in chronological order so as to represent a selective history of collage music and most are excerpts rather than complete recordings.

1 Charles Ives, 'Prelude: Maestoso' of *Symphony No. 4* (1916). Performed by the London Philharmonic Orchestra, conducted by Jose Serebrier. RCA: ARL1 0589, 1974. 03:00

2 The Goon Show, *The Call of the West*. Originally broadcast 1959 (BBC Home Service). From the album *Goon Show Classics Vol. 9*. BBC: REB 444, 1982. 01:54

3 James Tenney, *Collage #1 ("Blue Suede")* (1961). Available on the album *James Tenney - Selected Works, 1961-1969*. New World: 80570-2 ADD. 03:26

4 Arvo Pärt, 'III' of *Symphony No. 2* (1966). From the album *COLLAGE*. Chandos Records: CHAN 9134, 1993. 02:48

5 The Beatles, 'Tomorrow Never Knows', from the album *Revolver*. EMI: LC 0299, 1966. 02:57

6 The Beatles, 'Yellow Submarine', from the album *Revolver*. EMI: LC 0299, 1966. 00:29.

7 The Beatles, 'I Am The Walrus', from the album *Magical Mystery Tour*. EMI: CDP 7 48062 2, 1967. 00:59

8 The Beatles, playout groove¹¹⁴ from Side 2 of the album *Sgt. Pepper's Lonely Hearts Club Band*. EMI: PCS 7027, 1967. 00:16

9 The Beatles, 'Strawberry Fields Forever', from the album *Magical Mystery Tour*. EMI: CDP 7 48062 2, 1967. 00:32

10 The Beatles, 'Magical Mystery Tour', from the album *Magical Mystery Tour*. EMI: CDP 7 48062 2, 1967. 00:28

¹¹⁴ The 'playout groove' is the groove that the stylus gets stuck on at the end of a record. The Beatles were the first (only?) group to request that a recording be etched into this groove so that at the end of *Sgt. Pepper* one is left listening to a bizarre 'infinite' loop. Due to the differentiation inherent in every turntable/stylus/etc., everybody gets a slightly different loop. The common consensus is that it sounds like "We'll **** you like Superman" when the turntable is spun backwards, but mine sounds more like "Never could see any other way."

- 11 The Beatles, 'Being For The Benefit of Mr. Kite', from the album *Sgt. Pepper's Lonely Hearts Club Band*. EMI: PCS 7027, 1967. 00:32
- 12 Lukas Foss, '3. On a Bach Prelude "Phorion"' of *Baroque Variations* (1967). Performed by the Buffalo Philharmonic Orchestra, conducted by Lukas Foss. Nonesuch: H-71202, 1968. 02:18
- 13 The Beach Boys, 'Heroes and Villains', from unreleased album *Smile* (1967). (MP3). 04:06
- 14 The Beatles, 'Revolution 9', from the album *The Beatles ('The White Album')*. Apple: PCS 7068, 1968. 03:55
- 15 Frank Zappa, 'Lumpy Gravy Part One', from the album *Lumpy Gravy* (1967). Ryko: RCD 10504, 1995. 02:32
- 16 Luciano Berio, 'Section III' of *Sinfonia* (1968). Performed by the New York Philharmonic with The Swingle Singers, conducted by Luciano Berio. CBS: 60259, 1969. 2:28
- 17 Monty Python's Flying Circus. Sketches from the album *Monty Python's Previous Record* (edited). Charisma: CAS 1063, 1972. 05:41
- 17 John Adams, *Christian Zeal And Activity* (1973), on the album *The Chairman Dances*. Elektra/Nonesuch: 79144, 1987. 01:25
- 19 Gavin Bryars, *The Sinking of The Titanic* (1975), on the album *The Sinking of The Titanic*. Island: Obscure-1, 1975. 02:48
- 20 Frank Zappa, 'Gregory Peccary' (1977), from the CD album *Läther*. Ryko: RCD 10574, 1996. Originally released on the album *Studio Tan* (1978). 02:36
- 21 John Zorn, *Forbidden Fruit* (1987), on the album *Spillane*. Elektra/Nonesuch: 79172, 1987. 03:46
- 22 Steve Reich, *Different Trains* (1988), on the album *Different Trains/Electric Counterpoint*. Elektra/Nonesuch: 79176, 1989. 03:05
- 23 John Oswald, 'Spring', from the commercially unavailable album *Plunderphonic* (1989). 03:33
- 24 Django Bates, 'City in Euphoria - World in Chaos', from the album *Good Evening ... Here is the News*. Decca: PY 925, 1996. 02:58
- 25 Cornelius, 'Magoo Opening', from the album *Fantasma*. Matador: OLE 300, 1998. 02:14
- 26 The Harmon E. Phraisyar Show, *Bag Dad's Army* (2003). Commercially unavailable. 05:21

Bibliography

Bibliography

- Adams, Douglas. *Dirk Gently's Holistic Detective Agency*. London: Heinemann, 1987.
- Ades, Dawn. 'Collage: A Brief History' in *About Collage*, Peter Blake, ed. London: Tate Gallery Publishing Ltd, 2000.
- Ades, Dawn. *Photomontage*. London: Thames and Hudson Ltd, 1986.
- Ames, Charles. 'Automated Composition in Retrospect: 1956-1986' in *Leonardo* 20, 2 (1987), pp. 169-185.
- Batey, Angus. 'DalabaFrithGlickRiemannKihlstedt' in *Mojo* (Feb 2002): 106.
- Blake, Peter. *About Collage*. London: Tate Gallery Publishing Ltd, 2000.
- Buchner, Alexander. *Mechanical Musical Instruments*. London: Bastchworth Press, 1959.
- Burkholder, J. Peter, ed. *Charles Ives and His World*. Sussex: Princeton Press, 1996.
- Cage, John. *For the Birds*. Boston: Boyars, 1982.
- *Silence*. Cambridge, Massachusetts: MIT, 1970.
 - *M: Writings '67-'72*. Middletown: Wesleyan University, 1974.
 - *A Year From Monday*. Middletown: Wesleyan University, 1979.
- Chapman, Rob. 'Unfinished symphony' in *Mojo* (May 2003): 60-68.
- Cheniueux-Gendron, J. *Surrealism*. NY: Columbia Press, 1990.
- Cope, David. *Computers and Musical Style*. Oxford: OUP, 1991.
- Cowley, Julian. 'The Primer (The Fluxus movement)' in *The Wire* (April 2003): 38-43.
- Cross, Jonathan. *The Stravinsky Legacy*. Cambridge: CUP, 1998.
- Cunningham, Mark. *Good Vibrations*. London: Sanctuary Publishing, 1998.
- Doyle, Sir Arthur Conan. *The Coming of the Fairies*. London: Pavilion Books Ltd, 1997.
- Emmerson, Simon. 'The Language of Electroacoustic Music' in *On Sonic Art*, Trevor Wishart, ed. York: Imagineering Press, 1985.
- French, B. *Principles of Collage*. England: Mills and Boon, 1969.
- Glock, William, ed. *Pierre Boulez: A Symposium*. London: Eulenburg Books, 1986.
- Hall, Michael. *Leaving Home*. London: Faber and Faber, 1996.
- Hawkins, Joyce M., comp. *The Oxford Paperback Dictionary*. Oxford: OUP, 1989.
- Hellmann, Claudia. *Joseph Cornell*. Munich: Prestel Verlag, 2000.
- Hill, Peter, ed. *The Messiaen Companion*. London: Faber and Faber, 1995.

- Hiller, L. and Isaacson, L. *Experimental Music*. NY: McGraw-Hill, 1959.
- Human Givens Journal*. East Sussex, Human Givens Publishing Ltd.
- James, Robin, ed. *Cassette Mythos: The New Music Underground*. Autonomedia Book Series.
- Keenan, David. 'The Primer (Sonic Youth)' in *The Wire* (March 2002): 40-48.
- Keenan, David. 'Undoing time' in *The Wire* (May 2002): 42-49.
- Lester, Joel. *Analytic Approaches to Twentieth-Century Music*. New York: Norton, 1989.
- MacDonald, Ian. *Revolution in the Head*. London: Pimlico, 1998.
- Martin, George. *Summer of Love: The Making of Sgt. Pepper*. London: Pan Books, 1995.
- Meilach, P. *Collage and Found Art*. London: Studio Vista, 1964.
- Miles, Barry. *Paul McCartney: Many Years From Now*. London: Vintage, 1998.
- Negus, Keith. *Popular Music in Theory*. Cambridge: Polity Press, 1996.
- Oliveira et al. *Installation Art*. London: Thames and Hudson, 1996.
- Patterson, R. Gary. *The Great Beatle Death Clues of 1969*. London: Robson Books Ltd, 1997.
- Perlis, Vivian ed. *Charles Ives Remembered*. New Haven: Yale University Press, 1979.
- Pritchett, James ed. *The Music of John Cage*. Cambridge: CUP, 1993.
- Pynchon, Thomas. *Slow Learner: Early Stories*. London: Picador, 1985.
- Richards, Annette. *The Free Fantasia and the Musical Picturesque*. Cambridge: CUP, 2001.
- Shah, Idries. *Caravan of Dreams*. London: Octagon Press, 1968.
- Shah, Tahir. *Trail of Feathers*. London: Weidenfield and Nicholson, 2001.
- Smith, Reginald Brindle. *The New Music*. Oxford: OUP, 1975.
- Toop, David. 'Cornelius: Point' in *The Wire* (January 2002): 52.
- Toop, David. *Ocean of Sound*. London: Serpent's Tail, 1995.
- Ulmer, Gregory L. 'The Object of Post-Criticism' in *Postmodern Culture*, Hal Foster, ed. London: Pluto Press, 1993.
- Vincent, Robin. *PC Music: The Easy Guide*. Kent: PC Publishing, 1999.
- Watkins, Glenn. *Pyramids at the Louvre: Music, Culture and Collage from Stravinsky to the Postmodernists*. Cambridge, Mass.: Harvard UP, 1994.
- Wilmot, Roger, ed. *Monty Python's Flying Circus*. London: Methuen, 1990.
- Wilson, Brian. *Good Vibrations*. London: Bloomsbury Publishing Ltd, 1993.
- Wishart, Trevor. *On Sonic Art*. York: Imagineering Press, 1985.
- Wolfram, Eddy. *History of Collage*. New York: MacMillan, 1975.
- Xenakis, Iannis. *Formalized Music*. Bloomington: Indiana UP, 1971.

Selected Internet Sites

On generative music/algorithmic composition:

Automated Composing Links:

www.asahi-net.or.jp/~HB9T-KTD/music/musink2e.html

Generative Music - Brian Eno - In Motion Magazine feature:

www.inmotionmagazine.com/eno1.html

Generative Music:

users.net1inc.net/tlc/generate.htm

A History of Algorithmic Composition:

ccrma-www.stanford.edu/~blackrse/algorithm.html

On John Oswald and Plunderphonics:

Plunderphonics (John Oswald):

www.halcyon.com/robinja/mythos/Plunderphonics.html

Interview with John Oswald:

www.hyperreal.org/intersection/zines/est/intervs/oswald.html

The Tape-Beatles (contemporary collage-music artists):

www.deuceofclubs.com/write/tapebeat.htm

On copyright law and sampling:

Fair Use, essay on copyright law by Negativland (see next entry)

www.negativland.com/changing_copyright.html

Information on art, music and the idea of 'intellectual property':

www.eff.org/Intellectual_property/art_and_music_sampling.paper

Sampling, clearance and the law:

www.musicadmin.com/sampling.htm

The Unacceptable Face of Plagiarism?, article on copyright law and plunderphonics:

www.hyperreal.org/intersection/zines/est/articles/plagiari.html

On collage music:

John Hassell (contemporary collage-music composer):
www.voiceprint.co.uk/artists/johnhassell.htm

Cecil Touchon (contemporary sound collage artist):
touchon.com/soundcollages/

Negativland (infamous collage/plunderphonics group):
www.negativland.com/

The Bran Flakes (another contemporary collage-music group):
www.thebranflakes.com/

An essay on collage and music:
www.adh.brighton.ac.uk/schoolofdesign/MA.COURSE/LCollageQ.html

Frank Zappa's collage music:
www.people.fas.harvard.edu/~bachman/zappa.html

A History of Turntablism (using vinyl to create collage music):
www.addict.com/issues/5.02/html/lofi/Cover_Story/Turntablism/History_Of/

A discussion on the future of music, by a Professor of the University of Washington¹¹⁵ :
www.ram.org/ramblings/philosophy/fmp/music_future.html

And, finally, Paul McCartney's return to The Beatles' exploration of collage music:

“Paul McCartney's Liverpool Sound Collage was created as the soundtrack for About Collage, Peter Blake's exhibition now running at The Tate Liverpool. It extends the medium beyond its traditional visual form and includes recordings made by McCartney on the streets of Liverpool, as well as out-takes from recordings made between 1965-69 with George Harrison, Ringo Starr and John Lennon.” - taken from the website at www.mcbeatle.de/macca/a/lsc.html

∞

¹¹⁵“From a creative perspective, where I see all this going is that music becomes like language. Just as no one owns the English language, no one will own what music will become. The reason no one can own the English language is because of the number of people that have contributed to it, moulded it, and made it grow and adapt – it's either owned by everyone or no one at all. It's a continuous and complex dynamic system, evolving in a non-linear manner, and growing from the previous changes created by feedback loops. The same will apply to music in the future: a song you write may involve so many contributions and meta-contributions that to claim exclusive rights to it would be a joke. Like a language, music will be a collage of ideas, notes, chords, and sounds from many many different creative minds. The term “collage music” already exists to describe such a phenomenon, pioneered, in part, by the views of artists like Negativland (*sic*) and John Oswald [23] and embraced by genres like techno. Music will be....communication that begins where conventional language ends.”

CD Portfolio