Composing with images: a portfolio of audiovisual works exploring the compositional potential of associative sonic, visual and intellectual imagery.

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Contents

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Abstract

Most of the research undertaken within the music community on the combination of sound and imagery, has related either to mainstream film-making, or has been rooted in the predominantly abstract world of *Visual Music*. However, this portfolio utilises recognisable "real-world" imagery to produce multimedia works that function as compositions in a musical sense, whilst combining processes that draw from visual, cinematic, literary, musical and sonic traditions. Through an understanding of the different types of imagery that these seemingly unrelated media employ, the composer's intention is to formulate a working praxis which will enable a deeper understanding of the way that these image-forms interrelate within a multimedia composition.

During the creation of this portfolio, a compositional strategy developed which the author defines as *image-based composition*. The key to this method of working is an understanding of the *audiovisual image* as being an image that exists when two or more different image forms coincide. These produce an overall image that only exists because of this concurrence and which would be significantly altered by the removal of any one of its constituent parts.

Working with recorded sound material and recognisable video footage, this portfolio comprises seven independent multimedia compositions which develop and explore the interaction of sonic, visual and intellectual imagery. The way that each of these component streams interact in synchronised harmony and counterpoint and the way by which each stream has influence over the others, is explained by processes referred to as: *cross-genre image visualisation*; *digital collision* and *image transference*.

The composer concludes that the understanding of the nature of sonic, visual and intellectual image-interaction within a multimedia composition,

lies in an acceptance of the multi-sensory nature of this medium within which image-streams are in a constant state of flux.

Composing with images:

a portfolio of audiovisual works exploring the compositional potential of associative sonic, visual and intellectual imagery.

Image - the clue is in the word

The works in this portfolio explore a compositional strategy that I have chosen to define as *image-based composition*. An understanding of what this means can be confused by a tendency to assume that the word *image* refers predominantly to the visual domain, but in reality nothing could be further from the truth. A close look at the dictionary definition of the word reveals a much wider usage which can open pathways to a multitude of innovative and creative possibilities for any composer who is working in a multimedia environment. Yes, the word does refer to a visual representation, but it can equally refer to something that creates a *mental image* and a mental image can either produce a type of internal visualisation, or may equally exist in a purely cerebral domain, independent of any visual reference whatsoever.

The first synonym for the word image proffered by the Oxford English Dictionary is *imitation* and from this we can infer that anything that is in imitation of anything else creates some form of image. Thus it becomes clear that, as sound is equally capable of stimulating the imagination to produce clear mental images, it may, if the composer so wishes, be given equal weighting with the visual, thus facilitating a set of theories and techniques that I will define in this commentary as *audiovisual composition*.

In the following pages I will describe methods by which I bring together these separate image types and, by utilising processes that draw from visual, cinematic, literary, musical and sonic traditions, define a further class which derives from the contrasting and combining of elements of the above: this new image type I will call an *audiovisual image* and the process

by which I relate these disparate elements I will refer to as *image transference*. I will argue that it is the employment of these inter-dependent associative techniques that sets my audiovisual compositions apart from works being produced by other practitioners, most of whom are working either in the field of experimental film, (which shares the visual bias common to mainstream cinema,) or in the field of electroacoustic video (which has grown out of the application of musical principles to visual source material that is known as *visual music*). I will demonstrate that audiovisual composition encompasses both of these schools of thought but goes much further by also enforcing visual, cinematic and literary principles upon sonic source material. As far as I am aware the use of these techniques and principles sets my work apart from anything else that I have yet seen or heard and contributes significantly to the originality of the compositions in this portfolio.

Image-based composition as a strategy

How does one begin to compose when anything is possible: when all sound material is available as raw compositional source material? When sitting down to compose orchestral music, the composer is joining a tradition that has developed over centuries. Everything from the sounds that the instruments make, to the forms that are the basis for the works and the techniques that composers use within those forms has emerged over time, born out of the experimentation of thousands of musicians and composers. All this has created a framework within which the postmodern composer can apply his or her creative energies, secure in the knowledge that following the rules will result in one outcome while deliberately breaking them will result in another. But what if there are no rules? What if, as Russolo suggested, literally any sound material from any source can be seen as possible compositional content, as is the case with acousmatic

composition[1]? In this situation the composer has a choice: the composition can either be allowed to go where it will in a sort of electroacoustic equivalent to improvised Free Jazz, or he or she must find ways to impose new restrictions within which the work can develop. To this end, avant-garde composers have experimented with many methods to impose compositional frameworks. From Cage's coin-tossing *indeterminacy* to Stockhausen's *total serialism*, from Schaeffer's *reduced listening* to Reich's minimalist *phase-shifting*, the list of techniques devised to limit the compositional palette and/or impose a structure within which creativity can flourish is vast and all this is just within the sonic domain.

If we add to this equation the extra potential afforded by all the different types of imagery that can be encompassed within the audiovisual domain, then the wealth of possibilities at the composer's disposal explodes exponentially. The development of a deep understanding of image interaction is essential if the composer is to take control of this vast catalogue of possible source material and it is with this in mind that the works within this portfolio have developed.

Types of imagery relevant to audiovisual composition

Visual imagery

Of all of the types of image-language, the visual vocabulary is possibly the most lush and well-developed. We introduce our children to visual images almost as soon as their eyes open and we use those same images to teach them about the real world. Our first words are gleaned from hard-paged picture books with simple vivid images glowing out from them and, as our mothers teach us to recognise, ball, cup and cat, we learn to associate certain sounds with corresponding images. At this early stage we learn that cows go moo and that dogs go woof-woof and if we suggest to a child that it is any other way, that a cat may bark for instance, the child will probably

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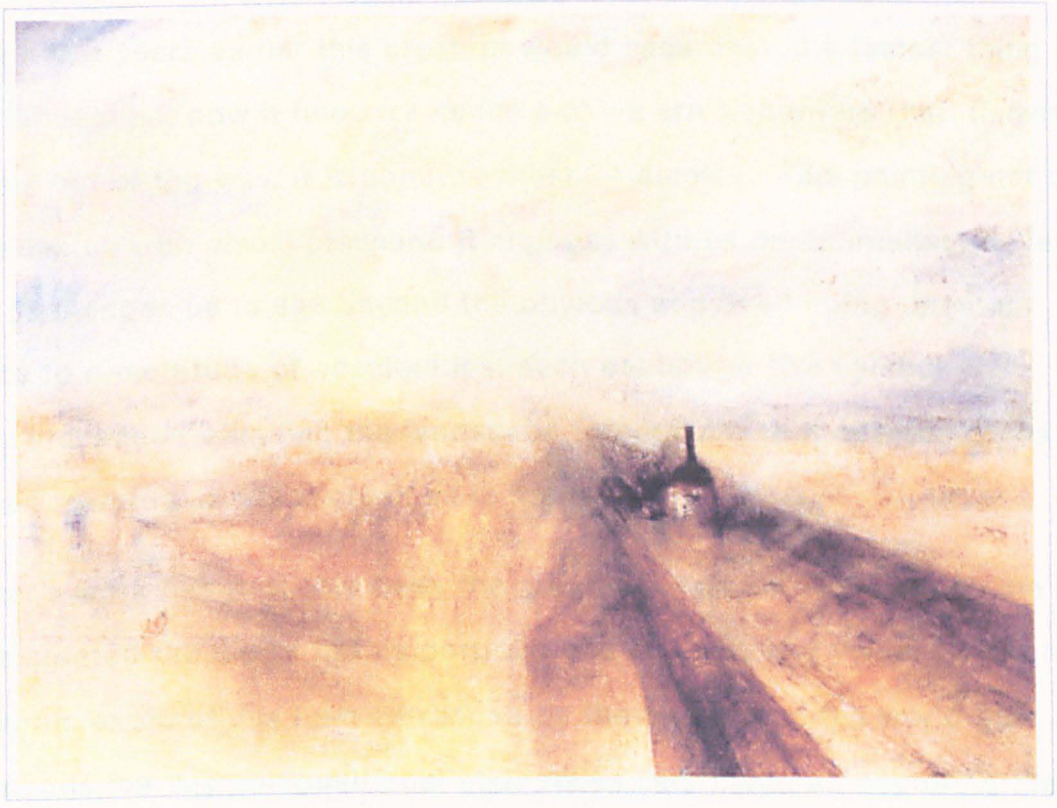
1 Luigi Russolo, *The Art of Noises* (New York: Pendragon Press, 1986).

laugh at our ludicrous suggestion. We learn very quickly that this is the way that the world is, this is the norm and we learn predominantly visually. As soon as our children can grip, we thrust drawing materials into their hands and they begin to represent the world as they see it. We ask our toddlers to tell us what is in their pictures and they invariably explain them to us in great detail thus learning straight away to convert their visual endeavours into narrative description and performing their earliest acts of image transference.

What is of relevance in this document is for me to consider the influences that certain artists and movements have had on my own work. I must stress that this list is by no means comprehensive, rather it is representative of a selection of artists who have been in some way influential in the formation of my personal aesthetic, both in the visual realm and, as we will come to see later in this commentary, by transference of ideas, also in the sonic domain.

Joseph Malord William Turner was a man of great vision with a single-minded determination to push the boundaries of the painter's art way beyond the simple act of depiction, into a world where the paint on the canvas is as much a poetic response to a subject as it is a descriptive one. His later works such as *Rain, Steam and Speed* of 1844 and *Shade and Darkness - the Evening of the Deluge* of the previous year take the viewer into a world where the paint surface challenges the eye to see both what is there and what is implied, as well as to enter a pictorial world charged with possibilities and it is this skill at pushing the boundaries of reality to a point so close to abstraction, whilst still retaining an incredible amount of detail (which emerges gradually the more that you absorb the image before you), that makes his paintings particularly of particular importance in relation to my work. To fully appreciate the skill with which Turner crafted these images you must let your eyes relax and allow the details to steadily

emerge, only then is it possible to begin to comprehend all that is contained within these explosions of tone and texture, because what is so entrancing is not how little detail is left in them, but how much detail dwells within those passionate torrents of pigment. What Turner has managed with such genius, is to present us with an opportunity to see the world differently.



Rain, Steam and Speed by JMW Turner 1844

If *Rain, Steam and Speed* had been simply a figurative depiction of a steam train going over a viaduct it would have been a very different picture. If the viewing angle had been different, so that we could view the livery and mechanics of the train, it would probably have just taken its place among the myriad railway paintings that have been painted over the last century and a half, but the livery and the mechanical details are not what interests Turner in this scene. What Turner creates for us is an experience! What we see is a raging metal beast roaring towards us with a fire in its belly, belching out steam and smoke. The entire landscape seems to quake in its

wake as Turner forces every ounce of atmosphere out of the scene. But even this is not the whole picture. What Turner also provides us with is an opportunity for allegory. Turner was living through the beginnings of the industrial revolution. A time of great change, when the iron horse of progress was forcing its way through 'England's green and pleasant land', relentlessly advancing without a care for anything in its path. On closer examination of the painting we see that in front of the train runs a hare. Only a few years earlier this creature would have been the fastest thing in this landscape, now it flees for its life and we are well aware that, unless it moves out of the way, it is about to meet its demise. This painting not only provides us with visual pleasure, it engages with us on an intellectual level and challenges us to see beyond the obvious and in so doing open our minds to a multitude of possibilities, such as: how is this symbol of industrialisation effecting the landscape through which it charges or: as it rushes towards us will it crush all in its path?

Turner's work has probably been the greatest of all influences upon me as I have created the works in this portfolio and not only in a visual sense. In my sonic explorations I am entranced by the textures of the world that surrounds me. My compositional style relies very much on capturing the sounds of everyday life, deconstructing them, reshaping them and using them as raw materials in the creation of something that is entirely new. The borders of abstraction fascinate me. As I manipulate these collected images of the real world I frequently refer back to Turner and his skill at allowing the viewer to draw the important elements out from the image. To engage with a Turner painting is not to be a viewer but a participant and this is what I wish to achieve in my compositions.

For many people the word Impressionism instantly brings to mind Monet's colourful landscapes, painted outdoors in an attempt to capture the fleeting effects of light. However, the aspect of Impressionism that is of most interest to me and has been most influential on the works in this

portfolio can be seen most clearly in the works of Degas, Manet (who many may consider, possibly more correctly, a Realist) and the lesser-known Gustave Caillebotte and also in the works of the Post-impressionist Henri Toulouse-Lautrec. A binding factor in all these works is a fascination with humanity and its many habits and idiosyncrasies. In line with the concept of the flâneur (which is explored in more detail later in this commentary) these artists took as their inspiration the people and places that were a part of their everyday life and, through the medium of their art, they allowed us, their viewers, the opportunity to observe and to cogitate upon the human condition. The majority of the works in this portfolio also take humanity as a starting point, sometimes concentrating directly upon the people themselves, as in *Hanley 11AM* and at other times dwelling upon human values, or on the empty spaces that people have abandoned, as in *Time & Tide* and *Closed 'Till Further Notice*. My fascination with people goes back a long way. For over 10 years I worked as a painter, specialising in portraits and contemporary genre studies and as my work has expanded into the sonic domain I have found that the most satisfaction comes from the study and manipulation of human voices, frequently in crowd situations.

In the introduction to his translation of Francis Picabia's book *I Am Beautiful Monster: Poetry, Prose and Provocation*, Marc Lowenthal described Dada thus:

> Dada is the groundwork to abstract art and sound poetry, a starting point for performance art, a prelude to postmodernism, an influence on pop art, a celebration of antiart to be later embraced for anarcho-political uses in the 1960s and the movement that lay the foundation for Surrealism.[1]

Many art movements may be seen as rejecting the established art of their day in an attempt to forge new forms and surely it is by this process that we progress. The Impressionists rejected the Romantic and Neoclassical

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works that dominated the nineteenth century Paris Salon and in turn the Symbolists rejected the Impressionists as too obsessed with realism. But surely the most reactionary of them all was Dada, the cultural movement that began in Zurich, Switzerland, during World War One and peaked from 1916 to 1922[2]. Dada declared itself anti-art and in doing so became an art movement in itself. The Dadaist poet and writer Hugo Ball wrote 'For us, art is not an end in itself . . . but it is an opportunity for the true perception and criticism of the times we live in'[3] and it is this spirit of non acceptance, indeed intelligent rejection, that I find inspirational. The subjects of my works are frequently topics which cause me to question so many things for which I can provide no clear answers. The one thing that has become clear to me as I get older is that art is not about providing answers as much as it is about not stopping asking questions and so it is that there are elements in my compositions that appear to work against traditional practices and even, despite my use of electroacoustic techniques, embrace concepts that reject some of the main tenets of the genre. Through Dada we learned that it is enough for an image to be an image, you may question and analyse as much as you like, but just like Duchamp's infamous *Fountain* (a urinal which he signed R. Mutt) the image, the artwork, the creation sits there in grim defiance.

Many more connections could be made with artists and art movements of the past, for as T.S. Eliot said in his 1922 essay *Tradition and the Individual Talent*:

> No poet, no artist of any art, has his complete meaning alone. His significance, his appreciation is the appreciation of his relation to the dead poets and artists. You can not value him alone; you must set him, for contrast and comparison, among the dead.[3]

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[1] Mario De Micheli and Giannina de Collado, *Las Vanguardias Artisticas Del Siglo Xx*, 2a ed. ed. (La Habana: Instituto Cubano del Libro, 1972).

[2] Hugo Ball, *Flight out of Time : A Dada Diary* (New York: Viking Press, 1974).p 58 p 58

[3] T. S. Eliot, "Tradition and the Individual Talent," in *The Sacred Wood; Essays on Poetry and Criticism, by T. S. Eliot.*(London: Methune, 1920).

I will acknowledge here, however, an absence in the previous pages of such abstract art movements as Expressionism and artists such as Kandinsky whose name is usually at the forefront of any discussion on audiovisual correspondences. There is also no mention of the symbolist movement, even though some may read such affiliations into some of my more quasi-narrative works such as *One*. These omissions are deliberate and are due, as will be explained later in this commentary, to a personal indifference towards total abstraction in the case of the former and a wish to avoid any association with the mysticism so often seen as intrinsic to the latter.

Cinematic imagery

How much relevance does commercial cinema, with its almost total dependence on narrative plot lines, its multi-million dollar budgets and its inherent collaborative format, have when considering audiovisual composition? To go some way to answering this, it is perhaps safe to say that, as audiovisual composition can most certainly utilise techniques that have been developed in the mainstream, such as editing and visual manipulation, it would be folly not to make full use of these. I have personally found a great deal of inspiration in the montage theories of Sergei Eisenstein and in the methods that the cinema has developed to understand sound in a film context. However, as with all the types of image mentioned here, these cinematic processes simply provide the composer with material with which to create. Freed from commercial restrictions, he or she can be selective, cherry-picking techniques and concepts as they see fit.

Sergei Eisenstein's montage theories.

As soon as mankind developed the means to capture and edit moving visual images, it became clear that by the meticulous editing of a scene or an object, complex analogies could be woven into narratives and meta-narratives. In the early twentieth century the Russian filmmaker Sergei

Eisenstein published his theories concerning levels of montage, which have become the basis of much modern day film-editing practice. The five levels of montage as proposed by Eisenstein are:

Metric montage - where the editing follows a specific number of frames, cutting to the next shot no matter what is happening within the image. Random images edited in such a manner may be used to infer a sense of tempo in a work simply by the frequency of the image changes regardless of what is happening within the frame.

Rhythmic montage - includes cutting based on time, but is also using the visual composition of the shots to induce more complex meanings than that which is possible with metric montage. In this situation the rhythm of the on-screen action is taken into account. For example, a sheep slowly grazing on a hillside would obviously infer a different sense of rhythm than a flock of sheep being herded into pens by a sheepdog.

Tonal montage - uses the emotional meaning of the shots to elicit a reaction from the audience even more complex than that evoked by metric or rhythmic montage. For example, a shot of a ewe licking the membrane from a newborn lamb would elicit a very different response than a shot of that lamb being herded into a truck full of other lambs.

Overtonal/Associational montage - is the coming together of metric, rhythmic, and tonal montage to synthesise its effect on the audience for an even more abstract and complicated effect.

Intellectual montage - uses shots which, combined, elicit an intellectual meaning.

According to Eisenstein the basic principle of montage theory is that 'two film pieces, of any kind, placed together, inevitably combine into a new

concept, a new quality arising out of that juxtaposition'.[1] He goes on to say that ' The juxtaposition of two separate shots by splicing them together resembles not so much a simple sum of one shot plus another shot - as it does a *creation* ..... the result is qualitatively distinguishable from each component element viewed separately'.[2]

Of course Eisenstein was talking specifically, at this period, about visual imagery, but later he went on to extend this concept to include what he called 'vertical montage' that is to say, the montage of sound and picture. 'There is no fundamental difference', he wrote, 'in the approach to be made to the problems of purely visual montage and to a montage that links different spheres of feeling -- particularly the visual image with the sound image.'[3]

The discovery of Eisenstein's montage theories was a revelation to me as an audiovisual composer. Prior to this I was, I must admit, struggling to find a connection between what I do and how I do it, relative to the work of other practitioners, most of whom are working in the field of Visual Music. So much of my work relies upon the artistic transference of ideas that are running in parallel through the same temporal continuum. These concepts, which are at the root of my compositional praxis, will be elucidated upon at greater length as this commentary progresses.

It is interesting to note the language that Eisenstein used to elucidate his theories: 'rhythmic', 'metric', 'tonal', etcetera are terms that will be familiar to any musician. In fact there are many times during his writings that Eisenstein uses established musical terminology to illustrate purely visual concepts. Is it possible that, faced with a necessity to create verbal correspondences to interpret his visual praxis for the reader, the language

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1 Sergei M. Eisenstein, *The Film Sense* (London: Faber and Faber, 1968), p 14.p14

2 Ibid., p 17.

of music, that was by that time already well established, fitted his needs perfectly and more importantly, could this three-stage image transference process from musical, to visual, to literary, provide a clue help the modern audiovisual composer make correlations between the parallel strands of their own works?

In the 1920s many creators who were exploring the possibilities afforded them by the new medium of film drew from the established lexicon of the musical world to provide themselves with artistic possibilities beyond the narrative. In 1927 Walter Ruttmann explored rhythm in montage in his 'city symphony' *Berlin, Symphony of a City*. In this Ruttmann intended for the viewer to experience the energies, dynamics and movements of the big city, by original cinematographic means. To this end, the filmed shots functioned as the starting point for a montage whose rhythm hypnotises the viewer by conveying an experience in velocities.[1]

Audiovisual relationships in mainstream cinema

There has always been a tendency within the cinema for the visual to predominate, indeed a common method of teaching film studies is to view cinema as developing from an ancestry which begins with visual art, passes through photography, film and video and on to digital audiovisual media. Whilst this method is perfectly valid, by favouring dominance of the visual medium, it chooses to ignore the influence that sound recording has had upon the development of both the technical and the aesthetic aspects of the genre. Indeed, whilst filmmakers in no way underestimate the importance of a good soundtrack, it would be safe to say that the image has dominated the study of mainstream cinema for more than a century.

In his 1988 book *On Video*, Roy Armes draws attention to the dominance of the visual:

> All the successive metaphors which have dominated conceptualizations (sic) of film theory - the framed image, the window, the mirror - are purely visual (Andrew 1984: 12). They point to a tendency in virtually all 1970s film theory not merely to privilege the visual over the aural, but to concentrate exclusive attention on it - to deal only with the camera when considering the history of technology (Comolli 1977, 1986), or to offer schemes of analysis of the image track while ignoring totally the parallel soundtrack (Metz 1974: 108-76).[1]

He goes on to propose that video recording (and in this computerised age we can add here digital audiovisual recording) has always shared a much greater relationship with sound recording than it has been given credit for. He points out that since the very early days of the cinema, visual images have very rarely been left to fend for themselves, having been accompanied right from the very first performances by some kind of narration or musical performance. He then proceeds to describe how certain directors have realised that by understanding the use of sound, beyond its use as a synchronised accompaniment, or as an enhancement to the video track, it is possible to elevate the soundtrack to a position of prominence.

One of the finest mainstream cinema examples of structured soundtracks in perfect synergy with filmed on-screen action can be found in the works of the French filmmaker/comedian Jacques Tati. Though often praised for reviving the silent comedy, in actuality Tati's films are far from silent. On the contrary they are masterpieces of sound manipulation. His soundtracks abandon the illusion of naturalism in favour of abstract collages of noises, voices and music. In his 1958 film *Mon Oncle* he parodies the sterility of modernist living and contrasts it with traditional French everyday life. In one very memorable scene we meet, for the first time, a family who are living the ultimate modernist lifestyle. As we enter their environment all music stops and the ambient soundtrack is removed, leaving only sounds that are synchronised with the on-screen action. But the sounds that we

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1 Roy Armes, *On Video* (London: Routledge, 1988), p 3.

hear are not the actual recorded sounds of the on-screen events themselves, rather they are manipulated exaggerations of these sounds. Tati then contrasts this reduced sound world with one rich with ambient sounds, as we return to the market square which is buzzing with the hubbub of urban life.

A few other directors such as Jean-Luc Godard (*Vivre sa Vie* – 1962) and Alain Resnais (*Hiroshima Mon Amour* – 1959) are celebrated for their creative use of sound and, as technology has developed, it must be acknowledged that the cinema has been responsible for some very strong sonic images. Who can hear the rumbling bass notes from the film *Jaws* without somehow recalling the feelings of tension and apprehension that this particular leitmotif contributed in the build up to the gory shark attacks? The screaming violins from Bernard Herman's soundtrack to Alfred Hitchcock's 1960 masterpiece *Psycho,* instantly recall for most people the image of the slashing knife in the infamous shower murder scene. But there can be no doubt that in the majority of films the bias is very strongly towards the dominance of the visual image. There has however developed, over the past eighty or more years, a syntax of cinematic sound which is extremely useful in terms of understanding the relationship of audio to the on-screen image.

We can define three spaces in any film and in crude terms we can say that if the images dominate the first space and hold their own in the second, the third space is wholly the sphere of sound.[1] Armes describes these spaces as follows:

Screen space - is perhaps the easiest of the three to understand, in that it basically consists of the sounds which correspond to, and are synchronised with, the action that occurs on the screen. This generally includes all spoken dialogue and sounds which are a direct consequence of

[1] Ibid., p 173.

deliberate on-screen actions e.g. the sound of an object being placed on a table or of a horse walking down a road. It is these synchronised sounds which reinforce the illusion of reality upon which narrative cinema depends.

The ambient track is an extra category of sound, which film makers soon discover to be crucial, which exists between the first two categories. It contains all the sounds of the immediate environment, which may or may not be synchronised with the on-screen action, but which firmly establish location and create atmosphere. The power of this track must not be underestimated, especially in the consideration of audiovisual composition, as at this level much can be done by the sonic artist to influence the audience's perception of a scene.

Diegetic space – includes all the off-screen sounds which have a direct bearing upon the action on screen and which in narrative cinema can be assumed to be heard by the characters on-screen e.g. in a conversation between two people, the presence of a character who is out of shot is assumed when their voice is heard, even though the camera may be in close-up on the person to whom they are talking. Or, in another example, the audience may hear the sound of a cigarette lighter before a hand holding said lighter appears on the screen to light the cigarette of the character in shot.

Although the considered use of diegetic space has long been a valuable weapon in the film maker's armoury, its role has become even more important since the development of surround sound. It is the sound that exists within diegetic space that takes the narrative world of any work beyond the boundaries of the two-dimensional screen space. As Armes points out, '...although we can only see in terms of light travelling in straight lines, we customarily hear around corners'.[1] It is this world of the unseen and the implied that is probably the richest with possibilities for the

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[1] Ibid., p 178.

sonic artist, allowing as it does for so many synergetic associations between audio and video.

Extra-Diegetic Space – Exists beyond the world of what we see on screen or any implied off-screen reality. In conventional cinema it is occupied by the voice-over, the narration and the music, all those sounds in fact which the characters on-screen can not hear, but which are added to enhance the experience of the audience. The role of music in film was concisely described by Tony Thomas in Music for the Movies as:

> .....filling the empty spaces in the action or dialogue, building a sense of continuity, underlining the drama, pinpointing emotions and actions, and creating an atmosphere. Above all it is able to shade emotion, to lighten or darken moods, to heighten sensitivities, to imply, to suggest, to define character and refine personality, to help generate momentum or create tension, to warm the picture or cool it, and – most subtle of all – to allude to thoughts that are unspoken and situations that remain unseen. [1]

An audiovisual composer, when considering these three types of space, is in the unique position of being able to cross boundaries, by nature of the fact that all three types of space can be made happily to coexist within an electroacoustic sound world. Dialogue and synchronised sounds can be as much a part of the musical soundtrack as they are of the narrative, ambiguities between diegetic and extra-diegetic space can be easily constructed and the whole can be moulded into a coherent entity which combines all concepts of sound-space into a single creative gestalt.

The ability to cut pieces of film into sections and to reassemble them to a creative end is a skill that filmmakers soon realised gave them an incredible amount of creative power. Whole schools of editing theory quickly developed and played a huge part in the development of the cinematic art. But, just as film stock may be edited to create a visual montage, with the

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coming of synchronised sound came the possibility of composers taking advantage of this new mechanical process. In his essay "Avant-Garde Sound-on-Film Techniques and their Relationship to Electroacoustic Music", Richard James describes many of the techniques used by those composers who took advantage of the invention in the late 1920s of the optical soundtrack, which enabled sound to be synchronised with moving images on celluloid. It was this innovation, which predates digital computerised sound manipulation by many decades, which first allowed composers to work with "visualised sound". Prior to that, composers and film-makers had been experimenting with synchronised phonograph records, such as those that accompanied Warner Brothers 1927 movie "The Jazz Singer", which is widely recognised as the first "talking picture" or "Talkie".[1]

In 1928 the coming of this new medium inspired the German film pioneer Walter Ruttmann to make an extraordinary film. Commissioned by Hans Flesch, director of the Berlin Radio Hour, *Wochenende* (Weekend) is a ten minute sound montage made using the Tri-ergon process of applying sound to film.[2] It depicts a weekend trip, from the departure of the train, through to its return to a crowded urban station, by means of a montage of found sounds recorded on film. For anyone with a knowledge of electroacoustic sound development, it is impossible not to see similarities with Pierre Schaeffer's first composition *Étude aux Chemins de Fer* of 1948. Both are basically sound montages and both quite radical for their day, but that day is twenty years apart. I am in no way suggesting that Schaeffer plagiarised Ruttmann's work, indeed I am yet to discover if Schaeffer had even heard of Ruttmann, but it is impossible to deny the similarity in the techniques that both men have employed, for which we usually give Schaeffer full

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1 Richard S James, "Avant-Garde Sound-on-Film Techniques and Their Relationship to Electronic Music," *Musical Quarterly* 72, no. 1 (1986).

2 Douglas Kahn, *Noise, Water, Meat: A History of Sound in the Arts* (Cambridge, Mass. ; London: MIT Press, 1999), p 131-2.

credit. What I would rather suggest is that, presented for the first time with the possibility of being able to edit sound, this is kind of montage approach is an obvious initial response.

'Ah but', you may say, 'the reason that we recognise Schaeffer as the first in this field is that he took the next steps, with the invention of *Musique Concrète*, or *acousmatic music*. Music where the sound transcends its initial source and stands-up in its own right as an *objet sonore*. Of course you would be right, in that Schaeffer was certainly the first to document his experiments and to give them names, but was he the first to engage with the process? Remarkably, *Wochenende* was performed in cinemas to movie-going audiences as a film without visual images[1]. Surely this has to be a strong contender for the first ever concert of electroacoustic music.

The following name may be unfamiliar, as despite having worked alongside more famous names and produced a substantial catalogue of compositions and critical essays, Arthur Hoérée is completely uncredited by the electroacoustic community. However Hoérée was a master of sonic montage, who pioneered the use of many editing techniques which have since become major weapons in the electroacoustic arsenal[2], such as sound reversal, duplicating, cutting and splicing and attack/decay removal. The 1934 film *Rapt* for which Hoérée shared the music credits with the (by that time former) member of "Les Six" Arthur Honneger, featured a storm which was both literal in its representation of a mountain storm and figurative, as it represented the emotional turmoil of the main character. In order to achieve this Hoérée had the studio orchestra improvise storm-like sounds which he recorded on about 10 metres of film, this he then edited and manipulated to create a sequence a hundred metres long, producing an effect that was far more subtle and expressive than real storm sounds

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[1] James.

[2] Ibid.

would have been. In Hoérée's work 'The total psychological content of the scene had been treated musically with fragments spliced together'.[1]

Of course, at the beginning of the 21st-century, technology has progressed far beyond anything that either Ruttmann or Hoérée could have imagined. The coming of the computer age has opened up possibilities that would otherwise have been impossible to envisage. Anyone visiting the cinema in 2010 will find themselves in a situation where everything that they see and hear has been so digitally manipulated and retouched that it is likely that far more time has been spent on postproduction than on actually filming and recording the original footage. It is now possible simultaneously to process every element of a production in the same machine and this invariably enables a situation where greater cross-media integration is possible than ever before. Once something, be it visual or sonic, can be digitised into a series of noughts and ones, it becomes possible to easily apply similar processes and concepts to the material in question, enabling Eisenstein's theory of vertical montage to be employed in a precise and imaginative manner.

Much of the above discourse has been referring to the early days of the cinema and little has been mentioned of more contemporary cinematic theory, modern techniques and special effects. I will cover surround sound later in this commentary, but as for other cinematic concepts, particularly with reference to sound theory and its relationship to what Michael Chion describes as *the frame*[2] (the rectangular shape that contains the visual image), I am not convinced of its relevance to my audiovisual compositions beyond the description that have already given of cinematic spacial relationships. Much of the reason for my doubts comes down to the manner in which I approach my work, in that, as all my works are the

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1 Ibid.: p 80.

2 Michel Chion and Claudia Gorbman, *Audio-Vision : Sound on Screen* (New York ; Chichester: Columbia University Press, 1994).

product of my individual process in every respect, they bear little resemblance to standard cinematic outputs, despite their use of real-world footage. In general I feel there is a far greater connection between my works and those of the early pioneers of cinema like Ruttmann and Eisenstein who were constantly experimenting with the medium to discover its possibilities, than there is between my works and the majority of modern day cinematic output.

Literary/poetic imagery

> I was as hollow and empty as the spaces between the stars. When I got home I mixed a stiff one and stood by the open window in the living room and sipped it and listened to the groundswell of the traffic on Laurel Canyon Boulevard and looked at the glare of the big angry city hanging over the shoulder of the hills through which the boulevard had been cut. Far off the banshee wail of police or fire sirens rose and fell, never for very long completely silent Twenty-four hours a day somebody is running, somebody else is trying to catch him. Out there in the night of a thousand crimes people were dying, being maimed, cut by flying glass, crushed against steering wheels or under heavy tires. People were being beaten, robbed, strangled, raped, and murdered. People were hungry, sick; bored, desperate with loneliness or remorse or fear, angry, cruel, feverish, shaken by sobs. A city no worse than others, a city rich and vigorous and full of pride, a city lost and beaten and full of emptiness.[1]

In the above paragraph from Raymond Chandler's *The Long Goodbye*, the author paints a picture of an American city. So vivid is his description that just by reading these few words we know everything about the city that Chandler wants us to know. He feeds us visual information 'looked at the glare of the big angry city hanging over the shoulder of the hills', sonic information 'Far off the banshee wail of police or fire sirens rose and fell', he invokes a feeling of physicality 'cut by flying glass, crushed against

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steering wheels or under heavy tyres' and finally gives us an emotional connection 'a city lost and beaten and full of emptiness'. Such is the power of the written word that by the simple organisation of letter-shapes on paper one man sitting alone in a room with a typewriter can transport millions of readers from the comfort of their living rooms to this brash and hostile place, or indeed to anywhere of his choosing.

Narrative, literary imagery is so empowered by virtue of its ability to directly stimulate our imaginations. We know the city of which Chandler writes: we've seen it in any number of Hollywood movies. We know this city so well that our minds fill in details in between the information that Chandler feeds us. His description is vivid, but the details that our brains' fill in make it even more so. To reproduce this scene cinematically would need many separate scenes cut together. To come anywhere close in any other format would be complicated and involved. The question that must be addressed in connection with this portfolio, is whether any of the complexity of literary imagery can be somehow translated into a form that is of use to the audiovisual composer.

One method that assists in this process I choose to call *Image transference*. That is to take the rules that have been proved to work in one domain and to see if it is possible to apply them in another. In *Simulation and Reality*[1], Ambrose Field describes, what he calls, 'sonic rhetoric', a method which combines audio concepts with traditional, grammatical terminology in an attempt to define sound as it exists within various audio environments. For example a sonic metaphor would be composed of sounds with a clear extra-musical context, which would serve to represent events with specific connotations within a work, such as footsteps implying a journey, or representing a movement between sections. To function well as sonic metaphors these sounds would need to be recognisable within the

[1] Ambrose Field, "Simulation and Reality: The New Sonic Objects," in *Music, Electronic Media, and Culture*, ed. Simon Emmerson(Aldershot: Ashgate, 2000).

context of the environment. Alternatively a sonic simile would occur where changing sounds within an established environment would seek to draw attention to similarities between sound objects thus creating ambiguity. Sonic personification would be the introduction of human sounds into a work, which could have the effect of creating a point of contact with the audience and finally sonic synecdoche would invite audience interaction with the work by giving only partial, or deliberately ambiguous, audio information, which would allow the listener to make their own associations in a similar manner to the above Raymond Chandler example.

Field proposed this terminology as a method by which "real" sounds could be utilised to great effect within an electroacoustic audio work 'without the need for an underlying narrative structure'[1], but these audio-grammatical ideas become even more useful when combining sound and video within an audiovisual context.

Musical and sonic imagery

In his 1913 treatise *The Art of Noises* the futurist Luigi Russolo wrote: 'We must break out of this narrow circle of pure musical sounds and conquer the infinite variety of noise sounds.....'[2] and in the intervening years it can be safely stated that we have done that exactly that. The technological revolution that occurred during the second half of the twentieth century brought with it new means by which to record, generate, manipulate, store, transmit and consume sound and with these came entirely new genres that have been responsible for the creation of brand-new sonic paradigms. In the 1960s the World Soundscape Project was born in Canada from an attempt to draw attention to the sonic environment through a course on noise pollution. One cannot help but wonder what Schafer would have made of a world full of ringtones, computerised voice messages, video

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1 Ibid.

2 Russolo.

game soundtracks and surroundsound television. There can be little doubt that the world of 2010 has a very different audio signature than it did in 1913 when Russolo wrote *The Art of Noises*, or even half a century ago when Luc Ferrari broke away from the Schaefferian influences of the *Groupe de Recherches Musicales* to work on what he termed *anecdotal music*. As Simon Emmerson points out, Ferrari 'wanted to restore a dualism to our sound perception', he quotes Ferrari:

> I thought it ought to be possible to retain absolutely the structural qualities of the old *Musique Concrète* without throwing out the reality content of the material which it had originally. It had to be possible to make music and to bring into relation together the shreds of reality in order to tell stories.

The sonic content of my work holds this sentiment at its core, but whereas when Ferrari was making works like his *Presque Rien* in 1975 he was working at a time when, what many consider to be strange and unusual sounds were not common in mainstream society, over the intervening forty years we have seen whole generations raised to accept the most extraordinary sonic manipulations as an everyday part of their lives. What soon becomes apparent when questioning people regarding extreme sonic manipulations is that on a conscious level they are frequently unaware of the effect that sound is having on them until it is pointed out to them.

Over the past five years I have delivered the same lecture/workshop on this topic to literally hundreds of secondary school children and their teachers. During the course of the lecture I confront the students with examples of work from Schaeffer (*Etude aux Chemins de Fer* 1948) and Stockhausen (*Kontakte* 1958-1960) and almost without exception the students immediately declare that they hate it and would never choose to listen to it for pleasure. I next confront them with two audio examples of a similar nature, but this time the examples are taken from popular culture, (one is the soundtrack to a cinema advertisement for ice cream and the other the

opening titles to a popular comedy series). A show of hands confirms again they would never choose to listen to such sounds. However when they are next shown the same examples but this time combined with the video tracks that they accompany their attitude changes immediately. The rest of the lecture demonstrates the widespread use of extreme sound manipulations that are now an everyday part of mainstream culture. My conclusion from having presented this same lecture to students from 11 to 18 years of age and to their many teachers is that, as part of an audiovisual presentation, we are happy to accept any amount of extreme manipulation that in isolation we would find perplexing to say the least, because all the imagery is combined, the work is no longer simply seen or heard but is primarily "experienced".

Combined with the cinematic sound theories that I mentioned in the above section on the cinematic image, I have have found Ambrose Field's concepts of 'landscape morphology', which he delineated in *Simulation and Reality*, as a method of understanding different levels of acoustic reality, to be most useful. Field identified the four main categories of landscape morphology as hyper-real, real, virtual and non-real. In *a hyper-real landscape* sounds are usually produced by simulation, which creates a "Disney like" landscape that is "more than real", as in Luc Ferrari's *Presque Rien* series in which, by extensive editing processes, he creates an aural impression of a heightened reality. *A real landscape* is by far the easiest category to define, in that it is comprised entirely of recordings which have not been manipulated in any way. *A virtual landscape* on the other hand is a world of pure simulation which has been carefully crafted to provide all the features and clues of reality without actually creating reality itself. As in Trevor Wishart's *Red Bird* in which, as sounds transform into other sounds, a highly plausible but ultimately surrealistic landscape is intimated. Finally he proposes that *non-real landscapes* are environments which are not real

or even surreal, but which, by the careful manipulation and juxtaposition of sounds, are made to seem as if they represent a sound landscape which could possibly exist.

Wishart in his 1986 essay *Sound, Symbols and Landscapes* redefines the term "landscape" (in relation to a modern world of constant mechanical reproduction) as 'the source from which we "imagine" the sounds to come'. He goes on to describe how radiophonics used similar techniques to those used by Ferrari to create sonic landscapes for radio and television. The sound designers in the BBC Radiophonic Workshop used such techniques to create the soundscapes for such works as *Private Dreams and Public Nightmares* by the playwright Frederick Bradnum.[1] These were akin to those used in *Musique Concrète* and *Elektronische Musik* but, with addition of the narrative element, they were moving what had thus far been *art music* into a more mainstream environment and thereby beginning a process of sonic art integration that has continued unabated to the present day.

In a similar vein, but approaching the sonic landscaping issue from a different angle altogether, in 1978 the BBC commissioned Andrew Sachs to write a "radio drama without words". The resulting work, *The Revenge*, made use of totally different techniques to generate a "realistic" landscape wherein sound alone would carry the entire 24 minute long narrative. Recorded using the Binaural technique that sets the listener as the centre point in the landscape, The Revenge was recorded entirely on location using a team of nine actors who physically acted out every action in the script, even going so far as to plunging into a river to sonically recreate a scene where the main protagonist takes cover from his pursuers by submersing himself. There are no extra sound effects in *The Revenge*, every sound that you hear is the actual sound produced by the scripted

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[1] subtitled *A Radiophonic Poem*, this was the first play to include explicit instructions for sound montage within the script

action. This play, about a man on the run (presumably having escaped from prison) who eludes his pursuers, steals a motorbike, breaks into a house in a remote rural location and there drowns another man in his bathtub, constructed its simple narrative through environmental sounds (e.g., birdsong, water, gravel pathways, traffic noises), through the sound of objects (e.g., doors, telephones, motorbike engines, sirens, cigarette lighters, breaking glass, clock chimes, ticking watches) and through bodily noises (e.g., sighs, panting, breathing, grunting, the rustle of clothing, footfalls, exclamations, humming, inarticulate shouting, meows). In so doing, the play sought to exploit the dramatic possibilities of non-verbal sounds and prove that a story could be told and, more particularly, could be understood without using any recognisable words. Whether it succeeds in this is a matter of opinion, Jonathan Raban, writer of many radio plays produced by the BBC, called *The Revenge* a 'wordless sequence of noises' and denounced it as 'a well-puffed curiosity'. He has criticised the play on the grounds that its assemblage of grunts, thuds, crunches, gratings and footfalls is ambiguous and confusing. Having listened to it I have to agree; whilst the individual scenes mostly create excellent sonic images, I would not say that it is easy to follow the narrative without outside input from programme notes. Also, as its aim is to convey a linear narrative, to my mind it does not work particularly well in a poetic or a musical sense due to a lack of any identifiable form.

As I have conceived the audiovisual works in this portfolio I have experimented with many of the above approaches towards narrativity, working both with manipulated real-life source material and synthesised imitative content. My observations on these experiments will be documented in my assessments of the individual works that follow.

Cross-genre Image Visualisation

On synaesthesia

In any discourse on *Visual Music* or on audiovisual art, it is frequently not long before the conversation turns to the subject of synaesthesia. It is not difficult to see why this happens. A possible connection between sound and vision and any interdependent relationship that may exist between them would, at first consideration, appear to proffer an easy route to understanding this particular art-form, especially in its more abstract incarnations. What better way to begin to establish links between these two sensory pathways than to lay claim to some scientific connection between the two. It has, after all, been medically established that the condition of synaesthesia exists in a number of individuals who, on receiving a sensory stimulus, will experience a response that is contrary to that which would normally be expected. But must it therefore follow that this synaesthesic reaction can in some way be translated into an artistic explanation for cross-media interdependency?

Medical Synaesthesia

Let us first consider the medical condition. A synaesthesic is a person who, on receipt of a sensory stimulus, will experience the response to the said stimulus in a manner normally associated with a totally different sense. For example, a synaesthesic may hear a sound and see corresponding colours or perceive a particular taste in their mouth. These responses may involve a combination of any of the five senses and, being involuntary, can frequently be quite distressing and disruptive to the individuals concerned. Medical understanding of synaesthesia is still in its infancy and for many years there was much discussion as to whether the condition actually existed at all, or was some kind of psychological delusion. It has needed the development of highly sensitive brain scanners to allow scientists to

detect that, in a true synaesthesic, certain stimuli will cause activity in parts of the brain that are not usually responsive to that stimuli.

In a study by a team of researchers from London, Cambridge and Manchester, published in 2002, a group of true 'colour-hearing' synaesthetes were examined using a functional magnetic imaging scanner (fMRI). The heading of their paper describes their experiments as follows:

> In 'colored-hearing' synesthesia, individuals report color experiences when they hear spoken words. If the synesthetic color experience resembles that of normal color perception, one would predict activation of parts of the visual system specialized for such perception, namely the human 'color center', referred to as either V4 or V8. Using functional magnetic resonance imaging (fMRI), we here locate the region activated by speech in synesthetes to area V4/V8 in the left hemisphere, and demonstrate overlap with V4/V8 activation in normal controls in response to color. No activity was detected in areas V1 or V2, suggesting that activity in primary visual cortex is not necessary for such experience. Control subjects showed no activity in V4/V8 when imagining colors in response to spoken words, despite over-training on word-color associations similar to those spontaneously reported by synesthetes.[12]

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[1] Note that dictionary definitions referring to synaesthesia give both spellings as correct.

[2] Gregory Nunn, Brammer, Williams, Parslow, Morgan, Morris, Bullmore, Baron-Cohen, Gray, "Functional Magnetic Resonance Imaging of Synesthesia: Activation of V4/V8 by Spoken Words," *Nature, Neuroscience* 5, no. 4 (2002): p 371.

This illustration shows their findings, clearly demonstrating activity in the V4/V8 regions of the brains of the synaesthesic group that is not present in the control group. They go on to observe:

> Our data validate(s) subjective reports of colored hearing by synesthetes. Experimental evidence for the long-term specificity and stability of these reports exists, as does psychophysical evidence for the perceptual quality of the experience. The data reported here, demonstrating differences between synesthetes and controls in activation of a color-selective region by spoken words, lend such phenomena an authenticity beyond reasonable doubt.[1]

Why synaesthesia actually occurs is still a matter for investigation, but it is apparent from the above, that for some people a stimulus of one sense will result in a response associated with another. What is important to note here is that medical synaesthesia is an involuntary condition. A synaesthesic has no control over their responses to stimuli; they make no conscious decision to associate one sense with another. It is a situation totally beyond their control. Also worthy of note is that no two synaesthesics respond to the same stimulus in the same way.[2] Those who see colour when hearing tones will most likely see different colours from person to person. So not only must we conclude that a synaesthesic is suffering from a condition over which they have no control, but also that every synaesthesic experiences their condition in a very individual manner.

On synaesthesia in art

Surely the main point to consider in relation to synaesthesia and art is that of reception. Possibly the most famous musical synaesthesic was the composer Olivier Messiaen who in an interview in the 1960s said:

> I am..... affected by a kind of synopsia ..... which allows me, when I hear music, and equally when I read it, to see inwardly, in my mind's eye, colours which move with the music, and I sense the colours in an extremely vivid manner..... For me certain

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1 Ibid.: p 373.

2 Nicholas Cook, *Analysing Musical Multimedia* (Oxford: Clarendon Press, 1998), p 28.

complexes of sound and certain sonorities are linked to complexes of colour, and I use them in full knowledge of this.[1]

In his book *Analysing Musical Multimedia* Nicholas Cook looks closely at Messiaen's synaesthesia and the way that it influenced his compositions. In works such as his *Couleurs de la Cité Céleste* Messiaen made copious notes for conductors relating colours to musical sections with extreme precision. In *Catalogue des Oiseau* he instructs the pianist thus: 'The chords ought to have a sonority akin to a stained-glass window with orange dominating and complemented by specks of blue'.[2] Detailed as these notes may be, what must be considered is how much, if any, of this colour/music interaction is perceived by the audience. Let us not forget that these notes refer to Messiaen's internalised and personal experience as conveyed to conductors and performers by yet another medium, that of the written word. Try as they might, any performer can only guess as to what Messiaen may have meant by these notes and whether this can be perceived in any manner by an audience with no knowledge of these notes is questionable to say the least. Surely the only person who could truly experience colours when listening to Messiaen's music would be another synaesthesic, but even then, as has already been mentioned, no two synaesthesics perceive things in the same way. Cook concludes, 'In other words, multimedia is not simply externalised synaesthesia. Synaesthesia, or at any rate quasi-synaesthesia, may be an enabling condition for multimedia, but it is not a sufficient one'.[3]

Cook then goes on to consider in detail Skriabin's colour hearing and his writing for a Tastiera per luce or colour keyboard in his fifth symphony *Prometheus*. Here the composer attempted to notate colour transformations on a musical stave so that an audience may somehow

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1 Ibid., p 30.

2 Robert Sherlaw Johnson, *Messiaen* (London: Dent, 1975).

3 Cook, p 33.

experience his synaesthesic interactions. This is obviously a serious attempt to present a truly multimedia experience, but again there are problematic considerations, both mechanical and aesthetic. Firstly it seems uncertain whether Skriabin's colours were intended to flood the auditorium with colour or to be projected onto a white screen - techniques which produce very different effects. In most performances the former has been used, but opinion varies as to whether the colour sequences actually form an essential part of the performance. In his essay 'The Relation between Sound and Colour' Sabaneev says that 'Skriabin simplified the problem to the extreme, rationalising it prematurely, and possibly destroying thereby the vitality of the association, which then became a habitual one'.[1] In 1978 Hugh Macdonald commented that 'critical response on those rare occasions in modern times when *Prometheus* as has been performed with colour effects has noted the incapacity of changing colours, even of coloured shapes, to hold our attention for twenty minutes'[2]. By 1983, however, Macdonald seems to have changed his mind, for he calls it 'the most musically successful of a number of attempts to create an art of moving colour'[3]. Sabaneev also have second thoughts for in 1911 he wrote 'Those who listened to the Prometheus with the corresponding light effects admitted that the musical impression was in fact absolutely equalled by the corresponding lighting. Its power was doubled and increased to the last degree. This happened despite a very primitive lighting, which produced only an approximation of the colours![4] [5] On many occasions the colour element has been totally removed and despite this the work has been well

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1 Leonid Sabaneev, "The Relation between Sound and Colour," *Music & Letters* 10, no. (1929): p 273.

2 Hugh Macdonald, *Skryabin* (London: Oxford University Press, 1978), p 57.

3 Hugh Macdonald, "Lighting the Fire," *Musical Times* 124 (1983): p 600.

4 Paraphrased in an editorial footnote to Sabaneev, 'Scriabin's "Prometheus"', p 131

5 The above from Cook, p 39.

received. To my mind this highlights a conflict between aesthesic experience and poietic compositional intention.

Correspondences may be drawn here to the differences between theatrical and concert lighting. Unlike dramatic performance lighting, which is employed to both enhance mood, indicate environment and direct the eye to the location on the stage that the director wishes to emphasise, concert lighting is there purely for visual effect; it is intended to enhance the performance experience. In common with Skriabin's *Prometheus*, colours change, often to a predefined score or plot and usually in sympathy with the music. Indeed many modern lighting boards bear similarity to musical instruments in that the operator controls the lights by means of a series of buttons, which he or she "plays" in synchronisation with the music being performed on stage. However, whereas this undoubtedly enhances the audience experience it is not a part of the music as conceived by the musicians: it is supplementary.

In *Prometheus* however Skriabin has, by deliberately including the colour sequence in the score, obviously seen this as a means of interpreting his synaesthesic experience for the audience and he has thus demonstrated deliberate compositional intent, as such we must surely consider the option that the whole - music and visual imagery - forms the totality of the work as Skriabin intended it. The aesthesic in this case is a deliberate interpretation of the poietic. Skriabin intended for the music/colour interaction to be intrinsic to the work, so whether or not we feel that the music can stand up in its own right is irrelevant. To experience *Prometheus* in sound alone may be perfectly satisfying, but it is not the work as Skriabin intended it.

This brings me to the topic of synaesthesia in connection with my own works and I must confess to finding the term synaesthesia in relation to artistic endeavour troublesome. Although much has been written,

presenting the case for synaesthesic art as being art that is meant to evoke synaesthesic-type associations in a non-synaesthesic audience, to my mind this artistic adoption of synaesthesia is apt to confuse and detract from the creative poietic behind any work. First of all let me establish the fact that I am not synaesthesic. Any inter-sensory allusions in my works have nothing to do with synaesthesia, on the contrary they are a result of deliberate artistic decision-making. If I choose to make some cross-genre metaphoric connection, the decision to do so is purely intellectual and artistic. Whilst I can see that it may have been important for both Messiaen and Skriabin to attempt to convey their synaesthesic experience through their art, I, as a non-synaesthesic, can claim no such motivation and in my mind were I to, as others have done, make claims of synaesthesic interactions within my works, it would be as false as my laying claim to some deep understanding of the experience of someone who is blind, or someone who is deaf, or someone who is paralysed, none of which conditions I have ever personally experienced. Never would I be so impertinent as to suggest that I could use such experiences as artistic motivation. My works of art are born from my own experience and from an intellectual process of observation, deconstruction, and selective reassembly. Everything about them is considered and deliberate, which to my mind is in total conflict with the involuntary nature of medical synaesthesia, a condition of which I have only read and have not experienced. Therefore, whilst acknowledging the beliefs of others in synaesthesia as an artistic catalyst, I categorically deny any synaesthesic connections within my own works.

Going beyond Gesamtkunstwerk

It was in his essay *Die Kunst und die Revolution*, written whilst in exile in Zürich in 1849, that Wagner first used the term Gesamtkunstwerk to describe his vision of a 'total work of art' in which all art forms would come

together in a spirit of egalitarianism[1]. With no single form dominating in this 'art-work of the future', Wagner sought to rediscover the perfect harmony that he saw as embodied by ancient Greek theatre. Such works would bring together artists, writers, dancers, musicians, even architects and sculptors, with the aim of producing works where all would strive together in the pursuit of artistic perfection. This concept was by no means new: writers such as Lessing, Novalis, Tieck, Schelling and Hoffmann had previously advocated, either in theory or in practice, some sort of reunification of the arts[2], but it was in Wagner that it found its greatest advocate.

All this of course was taking place in a pre-technological age, before electricity in theatres, before cinema and certainly way before the powerful computers that we have today. At this time the only conceivable way to create Wagner's 'artwork of the future' was to bring together experts in all the individual disciplines and to manage them in such a way as to allow them to collaborate to produce a work that transcends the sum of its parts. This method will be instantly recognisable as the way that the cinema and television operate. It could be proposed that these industries are excellent examples of Gesamtkunstwerk in action. Anyone who has taken the time to sit through the credits of a recent movie will recognise the incredible number of people involved in bringing even the lowest budget film to the screen. Maybe if Wagner was alive today he would be involved in the production of cinematic epics?

But what relevance is all this to the works in this portfolio? Am I about to claim that they are Wagnerian Gesamtkunstwerks? In some ways they are the antithesis of such large-scale masterworks and they are certainly not complex collaborations. So why even bother to make the comparison? The answer to this lies in the ethos of bringing together the arts to create

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1 John Tyrrell and Stanley Sadie, *The New Grove Dictionary of Music and Musicians*, 2nd ed. ed. (London: Macmillan, 2001), Vol 26, p 935.

2 ibid

balanced works where no one form dominates, which was at the root of Wagner's concept. What has changed in the last hundred and fifty or so years is that recent technological developments have enabled what was until now the work of many experts to be accomplished by one person sitting at a computer. In the same small box the composer can write a script or screenplay, generate and manipulate graphical material, edit visual footage and record and manipulate sound. In fact perform all the functions necessary to produce an engaging multimedia experience. The main difference here would appear to be purely a question of scale. But, it is my proposal that this question of scale is primary to the understanding of the nature of this relatively new art form. By enabling all process to be carried out by one individual, what was once only possible on a collaborative epic scale is now possible on the same scale as the painter, the novelist, the poet, the singer-songwriter and when viewed in this manner, rather than the scale of the project being a diminishing factor in comparison to its cinematic big brother, the creative possibilities that present themselves liberate the composer to present to the world the vision of the individual. I would maintain that the audiovisual composer can now occupy a place in the sphere of the arts that is new, fresh and exciting, maybe not a Gesamtkunstwerk but certainly 'an art-work of the future'.

Breaking the acousmatic contract

Whenever I attempt to engage with acousmatic music, I invariably find that my mind automatically begins to create images based on what I am hearing, sometimes seeking for the source sound, other times drifting by suggestion to an inner world beyond the sound. Perhaps it is because I have spent so much of my life engaged with visual imagery, but I find it almost impossible to simply engage with the objet sonore and immerse myself in the joy of pure sound. On the contrary, I tend to drift into a state of being whereby I totally lose contact with the sound, beyond ingesting it on some subliminal level. I must clarify here that this situation does not

come from any misunderstanding of the concepts, originally proposed by Pierre Schaeffer and developed over the last sixty years by successive practitioners of electroacoustic music. I totally understand what I should do and the contract that I need to make with the music but, for whatever reason, it just does not happen for me.

All this said, I have to acknowledge that much of the audio content of my works is firmly rooted in a tradition of *Musique Concrète*, however' it is my contention that the inclusion of the visual element removes the need for any *reduced listening* contract. With hand, ear and mind continually engaged and the sound material constantly involved in interplay with the visual, there is no place for a relaxation of the viewer/listener's attention to either. In fact to begin to accept any of the content of a work at a level of either a sonic or a visual object would be to risk missing whole sections of contextual interplay that may, at any one time, be the main focus of the work. So, contrary to adopting a *reduced listening* approach, it is more important that the viewer/listener keeps an open mind and remains receptive to stimulus that is at once visual, sonic and intellectual, for as a work progresses the focus of that work is constantly ebbing and flowing between these elements. This approach does, I would contend, go some way to making my works more accessible to a general audience who, if presented with the sound content of the work alone may struggle to accept it, but when the same sound content is amalgamated into an audiovisual experience, find themselves on more familiar ground. Because of a tradition of cinematic consumption people are immediately prepared to engage with content that in isolation they may find contentious.

So where does this leave my work in relation to Schafferian ideology and can my works honestly adopt the label electroacoustic? Here I would like to compare the works of two composers who, whilst working in a similar manner, in many ways have totally different intentions. John Williams,

whose music has been composed to enhance many of the most successful films of the twentieth and twenty-first centuries follows the time-honoured practice of hand writing his scores directly to manuscript paper and he employs a full orchestra to realise them. Many years before, Beethoven employed exactly the same methods, but Beethoven's works were intended for the concert hall, where the music would stand alone as the main focus of the performance. John Williams's work on the other hand is composed specifically to work in conjunction with cinematic images that are both visual and intellectual. The methods and tools used by both composers may be the same but the intended outcome is very different.

So it is with my work. The techniques that I employ to produce the sonic (and I will go on to argue, visual) elements of my work make use of many methods and tools that are common to *Musique Concrète*, however the intention of my work is very different to that of composers who work solely in the sonic domain. None of the sonic, visual, or intellectual elements are intended to be separate from the whole. My work hides behind no Pythagorean curtain - everything is out in the open. However, just as a stage magician makes good use of smoke and mirrors, so it is with my work; although, rather than merely accept the illusion, I would prefer that the viewer/listener be continually aware that what they hear and what they see may not always be what they first perceive. Indeed it may possibly be that this contradiction is the entire point at any given moment within the work. I would contend that truly to engage with my works requires, not *reduced listening*, but a heightened sensory and intellectual awareness. Why do I see a tolling bell, but hear a ticking clock and, is that actually the ticking of a clock, or the click of a camera shutter? Don't just accept, don't demote the sounds or the visual images to mere objects. The key to understanding the work may just lie in the comprehension of the metaphor or contradiction implied by associative audiovisual interactions.

Visual music

For many people music has often been seen as the purest of art forms. This is perhaps because of its ability to exist in a totally abstract realm, detached from the reality of everyday life and needing no other points of reference to justify its being. This purity has frequently been seen by many artists in other media as an object of extreme desire and as visual art moved away from realism towards abstraction in the early years of the 20th century, many painters looked to music to provide them with guidelines by which to achieve similar levels of purity within their art. The Russian painter Wassily Kandinsky was known to be a fervent admirer of the atonal works of Arnold Schoenberg, finding the dissonance in his music comparable to the freedom and creative energy in his own abstract paintings.[1] Other artists went further. Roy De Maistre devised an entire system of colour-music codes based on those first mooted by Sir Isaac Newton in the 18th-century. As Newton had done, De Maistre associated different colours with the notes of the musical scale starting with A for the colour red (Newton had previously designated red to the C note). In works such as *Rhythmic Composition in Yellow Green Minor* (1919) he used this colour code, combined with his pictorial composition ethic, to compose music-related paintings.[2]

Because music and film share a common dimension that is missing from the painted image – time - with the coming of the moving picture, music found an even closer visual ally. In Germany in 1921 Walter Ruttman's *Lichtspeil Opus 1* became the first abstract film to be publicly screened. *Lichtspeil* was made by painting directly onto separate layers of glass and developing the moving image frame by frame and in the same year Ruttman actually patented the technical methods that he had employed in the

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1 Maura McDonnell, "Visual Music," *in The Visual Music Marathon Catalogue, Northeastern University, Boston* (2007): p 4.

2 Ibid.: p 3.

making of this film. To accompany *Lichtspeil Opus 1*, Ruttman commissioned the composer Max Butting to produce an original score for string quartet which contained many indicators to the players in an attempt to ensure a tight synchronisation between music and film.[1]

It was in the hands of the German filmmaker Oscar Fischinger however, that visual music was taken to the next level. Fischinger saw *Lichtspeil Opus 1* in 1921 and as a result was inspired to work with the absolute cinema of abstract filmmaking and synchronised music. As William Moritz explains, 'In the spirit of non-objective art, he (Fischinger) maintained, correctly, that his films were absolute experiences in and of themselves, not representations of some other object or experience'[2]. As a notion this bears a notable resemblance to the claims that, over 20 years later, Pierre Schaeffer would make for his acousmatic compositions, when introducing the world to his theories of *reduced listening*. As well as being a filmmaker, Fischinger was also a prolific inventor. As others had done before him, he invented a colour-organ (a device to perform colour transformations) and a wax slicing machine which he used to create translucent moving colours in his films. It was his experiments with sound generation however that makes him of particular interest within the context of this portfolio. He invented a special camera with which he was able to photograph his drawings and other geometric shapes direct to the film's soundtrack. In *Ornament Sound* (1931) he used this device to turn the visual elements of the work into sounds, thus creating one of the first known works where the sound and visual content shared a common source.[3] Forty years on, the animator Norman McLaren used a variation of this technique, whereby he photographed sequential index cards marked with specific soundwave patterns that were then printed directly to the audio strip of the film. The

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[1] Ibid.: p 7.

[2] Ibid.: p 9.

[3] Ibid.: p 11.

culmination of this was the 1971 film *Synchronomy*, whose sole imagery was composed of the same visual patterns heard simultaneously with the sounds that the patterns were producing.[1]

Possibly the most influential name in the field of visual music though was Whitney. John Whitney Sr. and his brother James in careers that spanned six decades saw production techniques progress from, optical, through analogue to digital. The variety of methods that they employed proving so numerous as to be beyond the scope of this paper. The words of John Whitney Sr. himself possibly best describe the possibilities afforded the visual music composer by advances in computer technology:

> A major art form based on a common foundation of harmony is developing that intertwines colour with tone in a complementary bond. I call this associative relationship a 'complementarity'. For the first time one can design and execute visual and musical patterns in an inter-reactive form of temporal union.[2]

Within this field composers such as Dennis H. Miller, Bret Battey and Jean Detheux all use moving abstract images to produce works of great beauty and intricacy. Battey's *Autarkeia Aggregatum* (2005) in particular uses complex algorithms to control the movement and colour of thousands of points of light to produce continually evolving textural images of outstanding elegance, which are perfectly in harmony with the constantly developing, undulating soundtrack. Working in the USA, Dennis H. Miller has become a master of abstract three dimensional animation and one of the most prominent figures in the world of Visual Music. His works explore shape, form, colour and texture in both the visual and sonic domains and the with the arrival of hi-definition technologies, are attaining outstanding levels of technical excellence. However, whereas the ethos of Visual Music would seem to be to apply the same abstract aesthetic concepts to visual

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1 Louis Werner, "Spontaneous Frames of Movement," *Americas* 45 Sept/Oct (1993).

2 McDonnell: p 12.

imagery as are naturally inherent in music, I would wish to distinguish myself from those working purely in this field on the basis that my works also aim to apply the subtleties found in narrative visual art and in literature to the musical content of the works. While the techniques that I employ may include Visual Music as an element of the compositional structure, it is merely one element in a complex interplay of theories and methodologies.

Before moving on to consider the individual compositions in this portfolio, I feel that I should elucidate my attitude towards abstraction. Readers familiar with current trends in electroacoustic video and Visual Music may have noticed an absence of dialogue in the preceding pages on topics such as the works of the Abstract Expressionists, whose paintings have been an influence on many composers and the pioneers of Visual Music such as James and John Whitney and Oscar Fischinger, all names that appear frequently in writings on these topics. This omission, whilst deliberate, is not born from any acrimony towards these genres, more from a realisation that my main influences lie in different directions. Pure abstraction is not central to my work, my concerns are much more with the boundaries of abstraction, where reality is still discernible and with the interactive reaction of multi-layered, synchronous, audiovisual imagery.

Digital Collision - bringing it all together

At this point it may be appropriate to address a question which is commonly raised regarding the type of work that I have chosen to undertake i.e. what makes these works compositions, rather than films in the more standard definition and could not some of them be described as documentaries? The answer to these questions must lie in a combination of intent and method, mixed with an acceptance that, because something contains elements of one thing, it does not necessarily follow that it cannot be more than a sum of its constituent parts. While it is true that some of

these works could be described as documentary in nature and certainly they do contain documentary elements, the intellectual thread that may be thus described is always in interaction with the sonic and the visual elements of the work and as such must be considered as contributing material for musical interaction.

The intention is to produce works that transcend any of their individual parts or possible influences and stand in their own right as *audiovisual compositions*. In the same way that a book may be described as poetic while containing no poetry, or a painting may be described as dramatic while containing no elements of dramatic narrative, so it is with these works. They may contain elements of abstraction and visual music, of narrative and documentary, of poetry and literary allusion, they may utilise cinematic techniques and encompass sonic arts practice, but it is the coming together of all these elements and more that sets them apart and gives them their own unique identity.

Each of our senses, though receptors to different stimuli, are ultimately converted into electrical pulses which stimulate brain activity - the body digitises these images and thus we form our individual view of the world that surrounds us. Whilst we are always aware that a smell is a smell and a sound is a sound etc., much of the time we do not separate these stimuli out in our conscious thinking; instead what we do is to *experience* the world by allowing all of our senses to interact. This must be the key to understanding the way that an audiovisual composition is both conceived and received. With this established I shall from now on refer to an *audiovisual image* as an entity in its own right - an image that is born from a complex combination of sonic, visual and intellectual imagery all of which contribute to an image that is *experienced* rather than just seen or heard.

When working with an audiovisual image it is essential to measure activity within a work on many levels and to separate any one element from another

must be considered erroneous. The normal flow of harmony and counterpoint, so primary to traditional composition, may be followed within an audiovisual work, but whereas within music the material to be considered is purely sonic, in an audiovisual work paths of contrast and coincidence exist, not only within their own medium, but also between mediums. In works such as those in this portfolio, which deal with manipulated reality, this can mean that at, any point in a work, it may be possible to detect many layers of interaction and because the work exists within a time-based medium the content of those layers will be constantly in flux and the interactions will be constantly evolving, with different image-elements coming to the foreground at any particular moment, in the same way that the details emerge from Turner's paintings.

To give an example of this, in my work *Time & Tide* there is a sequence at around 09:40, where we see a visual image of the building-work that was taking place on the Liverpool waterfront at the time of filming, over the top of this we are also aware of an image of waves crashing on to a shoreline. Simultaneously the sound content of the audiovisual image is working in harmony with the wave image and the movement of traffic in the picture to reinforce the idea of the relentless onslaught of time. As the audiovisual image develops, we see the wave image and the construction site image meld together and change colour to a deep fiery orange-red, until what we are left with no longer resembles water but instead takes on the appearance of fire. During this process the audio image has undergone a transformation from water, through fire, to the sounds of warfare and has temporally overtaken the visual image and brought with it allegorical possibilities for anyone who knows the history of this particular area, which was the site of horrific devastation at the hands of the German Luftwaffe during World War II. We next see the waves, now orange, overlaid over a series of worn stone steps which we are now ascending from a first person view point. As we reach the top of the steps the camera continues and

begins a long, slow pan across the path that runs down the side of the church by which we now standing. The waves, now ambiguous, alternate between an appearance of water and fire and as the camera begins to ascend the wall of the church, to the accompaniment of intensifying sounds of warfare we encounter split-imaging as the waves appear as waves when viewed against the window arches of the church and as fire as they move over the stonework. The image reaches a crescendo as we zoom in on the clock at the top of the church tower. The church in question is St Luke's, Liverpool, commonly known in the area as 'the bombed-out church', which was hit by an incendiary bomb late in the evening of Monday, 5 May 1941, during the seven-day long Liverpool blitz and has remained an empty shell ever since as a memorial to all those from Liverpool who lost their lives in the Second World War. At this point the clock not only symbolises the passing of time but also provides a point of punctuation as we move on to the next section of this composition, in which waves, clocks and bells are recurring motifs.

Works

Hanley Friday April 27 2007 11a.m. (10:00)

"The city is not a concrete jungle, it is a human zoo."

Desmond Morris, *The Human Zoo: A Zoologist's Study of the Urban Animal*, 1969.[1]

From the report of the Commissioners in 1863, the following: Dr. J. T. Arledge, senior physician of the North Staffordshire Infirmary, says: "The potters as a class, both men and women, represent a degenerated population, both physically and morally. They are, as a rule, stunted in growth, ill-shaped, and frequently ill-formed in the chest; they become prematurely old, and are certainly short-lived; they are phlegmatic and bloodless, and exhibit their debility of constitution by obstinate attacks of dyspepsia, and disorders of the liver and kidneys, and by rheumatism. But of all diseases they are especially prone to chest-disease, to pneumonia, phthisis, bronchitis, and asthma. One form would appear peculiar to them, and is known as potter's asthma, or potter's consumption. Scrofula attacking the glands, or bones, or other parts of the body, is a disease of two-thirds or more of the potters .... That the 'degenerescence' of the population of this district is not even greater than it is, is due to the constant recruiting from the adjacent country, and intermarriages with more healthy races."

Karl Marx, *Capital* (Volume One), 1867[2]

Strong words indeed from a time when 'The Potteries' was flourishing, as the world's capital of ceramic manufacture. Whilst I was growing-up, during the 1960s and 70s, before the wrecking ball of globalisation tore through the city, Hanley on a Friday morning would have presented a very different face, populated, as it was, mainly by young mothers and the elderly, as most adults of working age toiled in the factories, the steelworks, or the mines to keep the wheels of industry turning. Today though, it is a very different story. Over the past fifty years the human countenance of the city centre has changed beyond recognition and it was for this reason, to

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1 Desmond Morris, *The Human Zoo* (London: Jonathan Cape, 1969).

2 Karl Marx and Friedrich Engels, *Das Kapital : Kritik Der Politischen Oekonomie* (Hamburg: Otto Meissner ; New-York : L. W. Schmidt, 1867).

capture a snapshot of the city centre as it appears at the dawn of a new millennium, that I took to the streets armed with a video camera and a portable audio recorder on the morning of Friday April 27th 2007.

The concept of the flâneur as 'a man about town who strolls around and observes society'[1] is closely associated with the nineteenth century French writer and poet Charles Baudelaire who first propounded the concept in his 1863 essay *Le Peintre de la Vie Moderne* (*The Painter of Modern Life*). According to Baudelaire:

> The crowd is his element, as the air is that of birds and water of fishes. His passion and his profession are to become one flesh with the crowd. For the perfect flaneur, for the passionate spectator, it is an immense joy to set up house in the heart of the multitude, amid the ebb and flow of movement, in the midst of the fugitive and the infinite. To be away from home and yet to feel oneself everywhere at home; to see the world, to be at the centre of the world, and yet to remain hidden from the world - impartial natures which the tongue can but clumsily define. The spectator is a prince who everywhere rejoices in his incognito. The lover of life makes the whole world his family, just like the lover of the fair sex who builds up his family from all the beautiful women that he has ever found, or that are or are not - to be found; or the lover of pictures who lives in a magical society of dreams painted on canvas. Thus the lover of universal life enters into the crowd as though it were an immense reservoir of electrical energy. Or we might liken him to a mirror as vast as the crowd itself; or to a kaleidoscope gifted with consciousness, responding to each one of its movements and reproducing the multiplicity of life and the flickering grace of all the elements of life...any man who can yet be bored in the heart of the multitude is blockhead? a blockhead? and I despise him![2]

In keeping with the tradition of the flâneur, as far as is possible, I have tried to remain dispassionate in both the recording and the editing

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1 The Concise Oxford English Dictionary.

2 Charles Baudelaire and Jonathan Mayne, *The Painter of Modern Life and Other Essays* (New York, N.Y.: Da Capo Press, 1986, 1964). Note: the original essay appeared in the Parisian newspaper, Figaro, in 1863

processes of this work, wishing to present a broad spectrum view of life on the streets, without proffering any particular ideological viewpoint. Depicted are the people who were on the streets of the city centre during the hour from 11am to 12 noon. The composition makes no judgement: the viewer/listener may make of it what they will.

In this work, more than in any of the works in this portfolio, I have explored the use of rhythmic and overtonal montage as compositional techniques. When viewed through the lens of a camera, the movement of humanity in and out of the frame, either en masse or as individuals, produces strong rhythmic flows which, by means of careful editing, can form ideal source material for a primarily tempo-based composition. This, of course, is no great revelation. Cinema directors became aware of this device very early in the development of the genre and have frequently employed the manipulation of human movement as a dominant aesthetic device. From the speeded-up comic antics of Mack Sennet's *Keystone Kops* (1912-17), who defined the high-speed, slapstick chase sequence that half a century later became the trademark of comedian Benny Hill[1], to *The Matrix* series (1999-2003) with its slowed down fight sequences[2], the speed of movement within the frame is a powerful cinematic device. The challenge for the audiovisual composer is to find a way to exploit this phenomenon that is predominantly musical and that allows for harmony and counterpoint between the sonic and visual elements of the work. Ruttmann said of his 1927 city symphony *Berlin, Symphony of a city*:

> During the many years of my movement studies drawn from abstract means, I have never been able to escape the urge to create from living materials, from the millions of movement related energies that actually exist in the organism of the big city.

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[1] I would suggest it is now almost impossible to see a speeded up human chase sequence without hearing Hill's signature tune, *Yakkety Sax* in your head.

[2] A technique originally pioneered by the directors of Chinese martial arts films.

The sounds of a city are myriad. Humanity mixes with machinery and 21st century electronics - voices, cars, cash registers, mobile phones - a veritable mélange of life-sounds, all setting themselves up as useful compositional material. As this work starts we hear the crowds before we see them. Before any forms begin to take shape on the screen, we are made aware of our surroundings; we know immediately that we are amongst people. The soundscape prepares the way for the now anticipated emergence of milling crowds.

The characters in *Hanley 11 a.m.* are manipulated in such a way as to be somewhat anonymous, but it is not their individuality that is of importance in the context of the work, as much as their existence as a part of the whole. We are constantly reminded that they are protagonists in the drama of life on the city streets. We see and hear snapshots of that life as each individual character passes before our scrutiny. Some characters, such as the street traders, are a more static feature of the scene than the shoppers who are just "passing through", but neither are a permanent feature, as by evening all of them will be gone and the picture of city life will change again.

This work relies greatly on the use of surround sound to immerse the viewer/listener in the environment of the streets. While it works in stereo, the experience created by the more two-dimensional sound world is very different. Somehow the stereo image creates a more observational experience which sets us apart from the action. The surround soundtrack, on the other hand, puts us squarely amongst the action. Although visually we are always restricted by the confines of the screen, sonically the surround soundscape gives us a strong sense of direction and proximity, which is reinforced by recognisable repetitive sounds such as the cries of the Big Issue seller, whose voice we hear frequently throughout the work, sometimes distant, sometimes close, sometimes we see him and he

becomes the focus of our experience, at other times we only hear him as a distant motif which serves to constantly remind us of where we are.

Unlike many of my other works, where the inspiration has come from the overall concept, or from a visual idea, this work grew directly from strong audio imagery. Common to many of the works in this portfolio is the theme of human voices, especially in crowd situations. The use of these in this work involves a deliberate attempt on my part to transfer the ideas that are at the root of Turner's paintings as described earlier in the section on visual art, into the sonic domain. Amongst the broader textures created by the layering of manipulated crowd noises, individual characteristics gradually emerge which, serve to give a strong sense of place to the listener. Towards the end of the section which explores the environment within the indoor market, we hear some of the only recognisable words in the entire work. The voices in question are simply anonymous female voices involved in dealings with shopkeepers, they are not specifically in sync with the visual image apart from forming a relationship with the fact that we are also seeing a stall where women are involved in buying goods. The accent attached to the voices is however instantly recognisable as being specific to Stoke-on-Trent and this serves to give the whole work in a strong sense of place and identity.

Time & Tide (14:58)

Apart from death and taxes, little in this life can be more certain than change. For better or worse, very little is constant, especially in the ever evolving entity that we call the city. As time ticks by with relentless inevitability, so things fall out of use, are demolished and are replaced with the latest bright and shiny objects of desire, only for these in turn to have their day as the unrelenting cycle repeats. This endless circle-game is however a particularly human trait, left alone nature changes very slowly. It

is mankind who, in the pursuit of wealth and power, push for the newest, the tallest, the unusual and frequently the most outrageous.

But a city is far more than its edifices, or the moneyed men who built them. A city is about people. Ordinary people who will never have a street named after them and extraordinary people who from cradle to grave form the living pulsing lifeblood of the city. Millions of individuals, who en masse make the city come to life, who give it purpose and meaning, without them the city would be as empty as a desert.

Time & Tide seeks to evoke the essence of a city, with images of what was, what is and what is yet to be. Set in Liverpool, the European Capital of Culture 2008, a city of diggers, cranes and wrecking balls, frantically toiling to prove to the world how "Cultured" it is, *Time & Tide* questions our changing values, the very nature of 'culture' and wonders what has happened to the dockers, the bakers, the sailors and the factory workers who made up the "real" culture of the city. Where are they now that the places where they earned their daily bread have been demolished to make way for chain stores selling the products of British companies, manufactured for pennies in the Far East, or for high rent steel and glass apartments that they could never afford if they saved every penny that they earned in a lifetime?

Times change – for better or worse - whether we like it or not and "change" is at the very heart of this composition. However, we are guided through this process by two elemental constants: the tide, relentless, predictable, eternal, and time itself, symbolised by the many ways that we represent it, tolling bells, ticking clocks, pulsating rhythms, etcetera. Whereas my previous works have been distinctly through-composed, *Time & Tide* employs these recurring motifs as markers, junctions from which we move to other locations, other concepts and other movements.

In this composition I have developed many of the techniques which have come to represent what I consider to be the backbone of my compositional signature. The most important of these is the process of a layering of multiple images one on top of the other allowing each successive layer to affect the layer, or layers, below. This technique can be used to create many different effects. I frequently use it to allow multiple scenes to co-exist within the same frame, with all scenes visible simultaneously, thus allowing audiovisual metaphors to exist not only between consecutive scenes, or between the audio content and the video content but also between multiple synchronised visual images. It can also be used to create strong hyperreal colour effects: many of the visual textures in this work have been likened, by those who have viewed it, to the effect of stained glass. The other technique, which I use frequently, is to have different visual tempos existing on different layers so that the image on the screen becomes polyrhythmic. When combined with similarly complex sonic textures, I believe that this brings me close to achieving, in an audiovisual context, something similar to the qualities that I so admire in Turner's paintings.

It was important to achieve a strong rhythmic flow in this composition, representing as it does an endless, evolving continuum. The first sounds that we hear establish time and place - running water combined with the pealing of the bells of Liverpool's Roman Catholic cathedral and, as the screen comes to life, we begin a seven image audiovisual montage - 4 sonic images and 3 visual images - running water, waves upon a beach, pealing bells and, in synchronisation with the onscreen swinging bell, the tolling of a single bell, all cut over the image of a pavement overlaid with a visual image of lapping water that connects with the similar sonic image - in this one simple sequence we we establish both context and intent.

The next scene adds to this the image of construction work indicating change, quickly followed by a sonic and the visual image combination of

people, which deliberately introduces the human aspect of change. As the scene progresses we are introduced to one of the most dominant motifs in the work: the ticking clock. However, the first time that we hear the ticking sound the visual image is actually of a tolling bell. As these two images are in close synchronisation, there is a direct allusion made between the tolling of the bell and the passage of time. As time ticks by, images of Liverpool buildings both old and new emerge through the continuing rippling image, until we are greeted with images of the Liverpool ferry terminal known colloquially as "the floating dock", which had sunk to the bottom of the Mersey during a storm over a year earlier and at the time of writing in 2010 has still not been permanently replaced. This is accompanied by a very audible and recognisable recording of the announcement broadcast aboard the ferries at the beginning of every trip which announces "Welcome aboard the most famous ferry in the world".

This composition continues in a similar vein, constantly exploring ideas of time, heritage, culture and values that we as a society place on these things. The ticking motif emerges at various stages throughout this work in order to continually reinforce these temporal theme and the theme of waves continue throughout, finally reaching a climax in a storm which contrasts with scenes of modern urban life.

Closed 'Till Further Notice (15:04)

From a press release by the British Pub and Beer Association May 2008:

> Pubs have been closing at the rate of 27 a week - nearly four every day - over the past year, according to the latest figures released by the British Beer & Pub Association. The current closure rate is seven times faster than in 2006 and 14 times faster than in 2005.
>
> 1,409 pubs closed during 2007. This is a sharp acceleration on previous years. Pub numbers were down 216 in 2006 - four a week - following a fall of 102 in 2005 – two a week.

To anyone of my age (I am 53) who grew up during the 1960s and 70s, the idea of the great British pub disappearing from the landscape would have been unthinkable. Pubs were for a very long time centrepieces of their communities, places where people would gather in the evening to meet their friends, their lovers, and even their enemies. But, as the above quotation shows, as drinking habits and ways and means of social interaction have changed in the intervening years, many large pubs, particularly in urban areas, are standing empty or being demolished. Of the many pubs that appear in this video, one has been turned into a care home for the elderly, one has become a block of luxury apartments, and one has become a Kentucky Fried Chicken, and many more still lie derelict, with the echoes of their previous importance strewn around their, once busy, car parks and beer gardens.

All the video footage from this composition was filmed within a three-mile radius of Stoke-on-Trent city centre. Particular emphasis was given to accumulating a collection of images of the signs which grace the outside of these forgotten buildings. The techniques employed in this composition build on those developed during *Time & Tide*, working layer upon layer to present a view of what is and what as yet may be. While *Time & Tide* explored the introduction of rhythm into what is basically a electroacoustic framework, *Closed Till Further Notice* takes this much further by working from the outset to a strict 120 BPM tempo with all the cuts, both visually and sonic, appearing exactly on the beat.

Filmed through, letterboxes and dirty windows, in beer gardens and car parks *Closed Till Further Notice* is an assemblage of simple images layered and manipulated to convey ideas of times-gone-by, to evoke a feeling for the millions of people who have been served over bars like these centuries. As the camera slowly pans and zooms through these vacant spaces, we find the flotsam and jetsam of humanity scattered all around. Tattered

bunting, broken chairs, piles of unopened bills: a multitude of beached Mary Celestes abandoned forever on the shores of a broken city. Through it all we hear the echoes of better days, the sounds of people playing football, children running around, the voices of those now gone forever.

The sound files for this work were recorded in the pubs in the area, by placing a Zoom H2 portable recorder on the table and recording a dual stereo mix, which was eventually converted to 5.1 in the studio. These multichannel files were used as the raw material for the main body of the work along with some of the stereo tracks from the video footage. One of the main audio features is the voice of "Tom" the old man with the Potteries dialect who cornered me while I was filming outside the Holden Bridge Hotel and insisted on telling me the entire history of the place as well as his own. I am eternally grateful to him for his input because his voice and insights make the piece work for me. As well as using whole sentences during the first part of the work, I took words and phrases and mapped them to the keyboard so that I was able to play them in sync with the more rhythmic sections of the track giving the whole thing a more organic feel.

The central section of this work explores both tight metric montage in the video and tightly synchronised percussive rhythms in the accompanying audio. This use of rhythm within the electroacoustic domain is, to my mind, the most successful element of this work. Cut tightly with the repeating visual imagery it builds gradually until it takes over from the visuals as the dominant force in pushes the whole work forward.

Filey Beach (7:00)

Filey Beach stands out from the other works in this portfolio and would at first glance appear to be out of place. This is not the case however, *Filey Beach* is an experiment on the boundaries of abstraction. The idea being to see how far images can be pushed before the originals are lost. All source material was shot very quickly on a baking hot day, from the promenade at

Filey, looking down at the great British public in all their uninhibited holiday glory.

This short collection of clips has been heavily manipulated to the point of what would appear to be pure abstraction. However, as soon as the small white circles against the sandy coloured background begin to move, our brains kick in and we realise that we are looking at people. The movement of five circles is identifiable as a person walking. What we thought was pure abstraction is actually a minimalist reduction. The video manipulation carries on in the same vein, moving between almost stark realism and pattern-based abstraction, while the audio content takes a similar approach. The entire soundtrack is in fact composed totally from just two audio tracks that have been extracted from the video material. These two tracks have been manipulated in many different ways in an attempt to create new details and motifs from the same source files. The two media are constantly working in opposition: the video is minimising constantly becoming less and less detailed, while the audio is being used to create artefacts and to trigger new sounds and as such is becoming more and more lush and complex. Although the movements in these two domains would appear to be contrary, enough points of coincidence occur for the two image streams to work together. Unlike most of the other works in this portfolio *Filey Beach* has no great message to convey, it is simply a study of the boundaries of perception, the people on the beach, interesting as they might be are simply visual material and are no more important than the sand or the sky. There is no doubt however that overall, this work shares with the other works in this portfolio is strong sense of place and identity. There is little doubt that we are looking at a short study of an English beach.

One (8:14)

One:

Where are you going?

When there really is nowhere to go.

Because wherever you go, you are always "here".

"There" is a place you can only dream of being.

Or remember having been.

But:

"Here" is the most difficult place to be.

"There" is where you always want to be.

But can never be.

No matter how hard you try.

You can only ever be "here".

But:

Nothing is forever

And one day you will not be here.

One day even the stone will wear away.

As beautiful as the horizon may seem.

It is, and must always be "there"

So:

Never let yourself forget.

As you wander through this life.

That "here" is the only place you can be.

And "here" you and I and the stone and the hills are as one.

And just for this moment we are all "here" together.

(Poem by Steve Bird)

The stone circle at Arbor Low in Derbyshire has long been a special place for me. Somehow it represents a world that is so wild and ancient that it transcends the complications of everyday twentieth-century life. Up on that wild moorland I feel at one with everything that is and everything that has ever been. For a number of years I have considered working on a composition based on this magical place but the fear of producing some pseudo-mystical detritus, which would be so easy with this type of subject, made me wait until I had a strong, creative concept around which to sculpt a work.

One exploits the idea of synchronicity and coincidence. The notion that time is a man-made construct that in nature is of no consequence whatsoever. In reality there is only ever now. The past is just memories and the future is always just about to happen, but can never arrive. It plays with the idea that everything that exists, whether animal, vegetable or mineral is always a part of the same fleeting instant and that existence is merely a chain of coincidence.

The circle has long been seen as a symbol of the eternal, the representation of a cyclical world that constantly regenerates. The serpent biting its own tail, or Ouroboros, is an ancient symbol which can be traced back as far as the ancient Egyptians, and Plato described such a beast as the first creature in the universe. In *One* a lone figure walks the mound that encircles the stones. We have no idea how long she may have been walking or for how long she will walk. It doesn't matter. All that matters is that we are there with her at this singular moment and, as this is a video work, the moment is repeatable and each time it is played will be the same moment captured for eternity. This captured moment depicts an elemental world: an ancient world of fire, water, earth and air; a world animal, vegetable and mineral: a world both base and complex. We see the stone and the grasses that are always there whether mankind is there or not, but in the video our

viewpoint constantly changes so that we are unaware of scale. The rocks could be mountain ranges, the grasses could be underfoot or towering above us. The stones sit for millennia, slowly eroding century by century. The grasses flower and reseed each year in a constant cycle of regeneration. Humanity is a fleeting visitor. But in this instant, as in every instant, these timescales are inconsequential as in each fleeting moment everything that "is" coincides.

Embracing the concept that all things are ultimately as one, this composition deliberately works with minimal source material, both sonic and visual. The same few video clips are repeated and layered, using the techniques that I have developed in my more reality based-videos, but this time allowing myself the freedom of *conceptual abstraction*. The sonic content is a continual reworking of a handful of recordings of rain falling, fire crackling and roaring, stones rumbling as they fall and the wind blowing. These sound files are manipulated in such a way as to mimic each other, creating a constant state of ambiguity. What sounds like fire is sometimes manipulated rainfall, running water is manipulated fire, electricity is manipulated rocks tumbling, nothing is as it seems, everything is made from everything else.

What is created in *ONE* is a temporal landscape. A landscape made from overlaying many images of a "real" place. Some images are in close-up making the grasses seem as big as trees, or at one point like incandescent electricity. In this particular work the sonic images are born from the visual inasmuch as I drew my inspiration for them from my creative response to the textures on screen. For example, the grasses blowing in the wind were interpreted with iterative sonic textures timed to correspond with the visual movement. As the images of grasses are layered, not only do both the sonic and visual images become more dense but the speed of their movements becomes faster and more punctuated. At this point the sound

becomes granular in response to the densely fragmented visuals. Similarly when the camera pans over the surface of the stone the sonic texture is deeper and rasping, this contrast evokes a feeling that the scale of this event is larger than reality.

These observations however do not reflect my thought processes during composition as much as being an after-the-fact analysis of what was a very instinctive process of audiovisual transference. The creative aim of this piece being to convey my response to that place, more than to portray Arbor Low in any literal sense. It is my hope that the viewer/listener will be left with a feeling of timelessness which has ironically been induced by a temporal experience.

Empty (4:26)

The works in this portfolio may be divided into those that employ complex audiovisual combinations i.e. multi-threaded, cross-genre explorations of sonic, visual and intellectual interaction and those that instead make a more focussed study of fewer concepts. Of these *Empty* falls into the latter category. It does however explore themes that have been touched upon in the larger pieces i.e. notions of change, ringing bells, human absence, time as an elastic medium and audiovisual spatial representation.

Just over a year ago my father-in-law sadly passed away at the age of eighty and shortly afterwards my mother-in-law decided to move to more manageable accommodation. This left empty a house that they had lived in for over fifty years. It was a house in which they had raised three children, and which had embodied the dreams of their youth and the challenges of their old age; a house full of the detritus of two lifetimes, but also a house momentarily frozen in time, devoid of human life but full of echoes. The whole point of *Empty* is to attempt to capture this temporal and spatial dichotomy; to represent audiovisually a place that is simultaneously both full and empty.

The visual material for this work employs a moving-photograph technique that has become synonymous with the documentary filmmaker Ken Burns, as a method of breathing cinematic life into still photographs. This method enables photographs, which are by their very nature captured moments in time, to take a place in a cinematic time-based medium that would otherwise seem at odds with the very nature of both forms. Employing a method known as pan and scan, the camera moves over the surface of the photograph, sometimes zooming-in to focus on pertinent details, sometimes zooming-out to reveal the fullness of a scene. Using this technique, photographs fade in and out of the frame and thus move in and out of our consciousness. We are always aware that we are viewing a static image, but we are guided by the camera through what can be quite complex narratives.

Ken Burns employed this technique primarily to make use of old photographs to construct cinematic documentary footage of events for which no contemporary film-stock existed, but which had been preserved for posterity by photographers. In works such as his award-winning series *The Civil War* (1990), Burns utilised literally thousands of still images to tell the stories of people who lived through events that occurred between the invention of photography and the development of the moving picture. The technique does in fact predate Burns and had been used as a production technique long before his association with it. In fact the naming of the technique after him can be directly traced to the Apple Computer Corporation who developed a method of automating this technique for use in their iMovie software and named it "The Ken Burns Effect", a label which has since been repeated many times as other developers have incorporated the technique into their software. I chose to use this technique in *Empty* because of the feeling that it portrays of time-stood-still, which may be perceived as an almost contrary effect to that of animation, but it should be

acknowledged that when this technique is employed the two states of animation and stasis frequently appear to exist simultaneously.

As the work begins, before we see our location, we are presented with some notion of arrival within a cavernous space. We hear footsteps, the movement of locks and, as a door slams within a large reverberant environment, we are presented with the word EMPTY in large black letters on a white screen. At this point we have established a sense of place. Wherever we are it is huge, resonant and devoid of something, though of what we are, as yet, unaware. All we have seen up until this point has been simple text in black and white: stark and minimal, whereas our ears have already received a rich canvas of reflections that seek to place us in a very specific location.

Within seconds however, this distinct sonic image is contradicted by the first emergence of a visual location and contrary to expectations as telegraphed by the sonic imagery, we are not in a large, stygian locale, but in a modest room strewn with a collection of objects, large and small. The visual canvas is not minimal and resonant, but cluttered, richly textured and vivid to an almost fauvist extreme. Although now devoid of humanity, this house resonates with visual echoes of what has been. Objects lie abandoned, now useless remnants of lives past. We hear a very distinct drum-like rhythm (which is actually the looped sound of my footsteps walking up the staircase), that seeks to build a sense of suspense as we the viewers walk around this house. Again the sound is reverberating in a manner usually associated with an enclosed empty space but this contradicts all the visual information, which shows clutter everywhere. Sometimes it is possible to fill a place with objects but for it still to be "empty". We do this in relationships too. We surround ourselves with a tangled mess, both literally and figuratively whilst existing from day to day in an emotional vacuum. It is this sense of vacuity that I am attempting to suggest by this constant audio-visual contradiction.

For some reason all around this house hung a selection of wind chimes of various shapes and sizes, which I recorded and manipulated to provide yet another mismatch, by virtue of the suggestion of movement in an obviously static environment (wind chimes are silent without wind). So it continues: slamming doors bring with them an association of finality which coupled with the through-composed nature of the piece creates an audio-visual reality that is charged with contradiction and counterpoint. Visually the piece is a metric montage built around a repeating four second cut that occurs throughout regardless of frame content. The inferred speed of the image is controlled by the speed of the camera over the still pictures plus the tempo implied by the interaction of the sound objects. Rarely do we get any audio-visual correlation between sound objects and visual ones other than when we see the bell in the kitchen and hear the same bell, however this is given an other-worldly feel because of the lack of movement within the visual image.

The surround-soundfield is used in this work primarily to create a sense of space. Visually this work is in total conflict with its title, the visual image is cluttered and enclosed, frequently verging on claustrophobic, the sound world however is much larger than the confines of the screen are centred very much upon the listener, making it seem that they are walking through the house, seeing what is there, but somehow hearing what is not.

Connerkickabo Agenawo Eneymower (10:22)

Stoke-on-Trent is currently undergoing huge changes in the name of regeneration. The streets of terraced houses, that housed the potters, the miners and the steelworkers and their families and which have been a huge part of the character of the city are being razed to the ground. Entire communities are being split up so that their homes can be bulldozed to make way for more modern and more expensive housing, that is most likely beyond the means of the area's former inhabitants.

One of his area's former inhabitants who was born and raised in the area where this video was shot went on to become one of the greatest sportsmen this country has ever known. Sir Stanley Matthews, as a small child, would most likely, as most boys do, spend hours kicking a ball against the walls of these houses, dribbling up and down the back alleys and dreaming of the fame and fortune that he was later to achieve. Over the successive decades many small boys will have done the same and have shared the same dream. But sadly they will no longer dream that dream in the streets. All that is left here or the ghosts of all those childhood dreams. At a time when the city's football team has again returned to the top flight of British football, the streets where our greatest hero grew up being destroyed.

We have a phrase here in Stoke-on-Trent, in the Potteries dialect which goes: "cost kick a bo agen a wo or ed it wi y'ed till the bost it", in translation for those of you who are not from this area that actually reads as: "can you kick a ball against a wall or head it with your head until you burst it". Everyone around here knows this phrase, even if they know nothing else in the dialect: hence the title of this work.

Connerkickabo agenawo enneymower follows the visual image-combination style, developed in *Time & Tide* and *Closed Till Further Notice* and combines images shot on these disappearing streets with street sounds, recordings made at Stoke City during a match and the highly recognisable sound of all being kicked against a wall. We also see many shots of the statue of Sir Stan at the Britannia Stadium.

This is a composition about dreams, all the dreams that have been dreamed on these streets and in these houses, all the lives that have been lived out in these meagre dwellings and it is about all the dreams that will no longer be dreamed! This work is possibly the most mature and evocative of these works. My audiovisual montage techniques have been worked out

during the course of these compositions and I used in a less self-conspicuous manner here. I would like to think that as I have worked on developing this style of composition that the technique has become more and more transparent allowing the subject matter to take the lead part in these scenarios.

Themes

It became clear as I worked my way through the creative process of this portfolio, that a number of themes run through many, if not all of these works, and these themes deal predominantly with place and identity. I find myself concerned with depicting particular aspects of places that are very special to me on a personal level, but wishing to represent them in some universal fashion that hopefully allows me to communicate both the essence of the place and my own responses to it. This is not down to some misplaced regional allegiance, born from a sense of pride or belonging, more it is my engagement with my own response to locations that are, or have been, important places in my life. These responses are reflected in the compositions from a very personal point of view, but I hope that this somehow invites the viewer/listener to also engage both with the place in question and also with aspects within the compositions that may contain individual personal resonance. It is not uncommon for someone to approach me at a concert and say, 'that is just like my hometown of (wherever),' which to me suggests that the medium has become transparent and they have been able to "engage" with the subject. These works are not unlike portraits of places, and whilst they may be visually pleasing, my primary quest is to communicate and to paint a recognisable audiovisual likeness.

Technical Developments

From a technical point of view, constant development has meant that techniques that were made possible by software four years ago have

developed over the intervening years, and this shows in these works when they are viewed in the order that they were composed. Much faster computers have meant that I now edit and process both sound and video in "real time", which in turn has enabled me to work in a much more organic manner. The first video in this portfolio, *Hanley 11a.m.*, was manipulated using: Adobe After Effects; Adobe Premier and Adobe Illustrator. Steinberg Nuendo was used for the sound. Its creation was a long and complicated process of rendering and re-rendering, and although the result is one that I am very pleased with, I have found that my working process flows more satisfactorily using Sony Vegas video editing software. For the sound I now use Logic Studio Pro 9, because it is very stable, intuitive and user friendly. All these works are composed in 5.1 surround sound from the very beginning of the process. I always try to work with six channel files from the offset, because I then have a choice of editing them as multichannel sound objects or extracting from them stereo or mono segments to be dispersed around the sound field. I have made much use of the Zoom H2 portable recorder for its ability to record a four channel sound image, which, by means of software plug-ins, can be converted into a 5.1 image. I have also produced all the works in various formats. Accompanying this commentary is a DVD containing all the works in MPEG 2 format with 5.1 audio tracks, which should playback on any multichannel DVD player. Also included are HD versions of the same tracks in MKV file format which will play on any computer using the VLC media player or the DivX Player amongst others. It is my preference that these 720p HD versions are the first choice for any viewing of my work as the visual quality is much higher than DVD, but viewing them will need a good quality machine connected to a 5.1 speaker system.

Conclusion

The intention at the outset of this PhD was to experiment with strategies to combine "real-world", recognisable video footage with sound recordings, in a manner that would be musical, rather than cinematic. It became clear, from an early stage, that it would be necessary, not only to identify the separate image-streams at work within a composition, but also to understand the manner in which these streams interact with each other within a multimedia work. The process of identifying these image-streams involved an in-depth analysis of the term "image" followed by extensive research into the way that different types of image (visual, cinematic, literary, musical and sonic) function within their native environments. This progressed to an investigation into the possibility of these individual image-streams directly interacting in a way that could be predictable, repeatable and conveyable to a lay audience. After much research into the controversial topic of synaesthesia, I concluded that, as I am not a medical synaesthesic and thus have no direct experience to relate to my work in such a way, I must find a more suitable explanation for cross-media interaction within my works.

Surprisingly, it was through the work of J M W Turner, an artist whom I have long admired, that I came to understand my own audiovisual working methods. In Turner's later works he would overlay complex layers of glazes, creating paintings of amazing textural complexity. Although a Turner painting may initially seem indistinct and nebulous, on closer examination, surprising amounts of detail emerge. In my works I follow a similar creative process. The world as it exists now (I never use archive recordings) forms the source material for everything that I do. Video footage and sound recordings are made "in the field", before being extensively reworked in the studio. I make frequent adjustments to both sound and visual imagery, always with an awareness of the temporal interaction of sonic, visual and intellectual image-streams. Whilst constantly close-monitoring these

individual elements, I push the work towards abstraction by a process of layering. Video images are stacked one on top of another, each interacting with the layers below as I adjust the alpha channel properties of each layer. This method allows me to present the eye with complex multiple image-streams within the same frame, each image evolving independently while constantly influencing the whole. I employ similar methods with the sonic material, creating dense textures which slowly evolve, constantly interacting with the visual imagery in a symbiotic image-interchange. Visual imagery and sonic imagery are afforded equal status within the work, each constantly evolving to create a complex image-flow, within which no one stream dominates. Once this textural complexity is established, individual elements are eased out of the mix to provide highlights which emerge from the whole, in a manner which bears strong similarity to the way that details emerge from the seeming indistinctness of a Turner painting. These details form image-streams which run in harmony with, or counterpoint to, each other, with visual interacting with sound, sonic interacting with vision and both being constantly referenced by intellectual streams formed by the viewer/listener's interaction with what he or she sees and hears.

All of the above is facilitated by the coming together of both video and audio in the digital domain, allowing similar processes to be applied to both. This process I define as *digital collision*, because it is here that the deconstruction of recorded reality occurs and that the whole is reconstructed into a composed 'total-work-of-art'.

Having rejected the notion of synaesthesia, the question remained as to how one image-type may influence another. This process, which is a conscious application of intellectual thought and artistic choice, I defined as *image-transference*. I uphold no notion of any occult methodology of the kind frequently ascribed to quasi-synaesthesic methods. Nor do I subscribe to any method of total abstraction akin to Visual Music, or to any

distancing theories such as reduced listening. The process by which my works are created is one hundred percent deliberate and calculated. By my definition, *image-transference* is achieved by a process of conscious, deliberate, artistic decision-making.

Studying the interaction of these complex image-streams has brought me to a definition of an *audiovisual image*. This exists when two or more image-streams coincide in such a way that to remove any one stream from the equation would significantly alter the context of the work at that point.

To summarise, the key developments which have emerged during the creation of this portfolio are:

- The understanding of the nature of *image-transference* as a creative method of image interaction;
- The recognition of the importance of the *audiovisual image* as fundamental to understanding the compositional structure of a multimedia work;
- The establishment of a working praxis for image-based composition which enables the musical interaction of "real-world" images.

There are many ways that this research may be progressed to create works that are both more concise and more complex. I have experimented with the use of rhythms in a number of the compositions in this portfolio, but there is scope for much more work in this area; developing techniques in audiovisual interaction to explore the use of intricate polyrhythms in both the sonic and the visual imagery.

I am also interested to see how these techniques may be employed in works with strong narrative content, allowing for story telling without losing musical focus, in a similar manner to opera and ballet. In this way it may be possible to extend the duration of these types of works. Currently the

maximum length of fifteen minutes feels like a threshold for holding audience attention for this type of work.

In traditional musical terms, most of these works could be described as "through-composed", but there is much scope for experimentation, not only with intricate musical forms such as sonata form, but also with repetitive forms such as fugue and rondo. These may apply a more rigid structure to the work, whilst retaining the inherent freedom of *image-based composition*.

I am very pleased with the way that the works in this portfolio have progressed and I feel that, during this process, not only have I been able to develop a strong compositional signature, but I have also developed a strong creative framework based on theory and practice, that is drawn from all areas of life.

Annex A

The following text is taken directly from the 2010 electronic version of the *Oxford English Dictionary*. It clearly demonstrates the many definitions of the word *image*. An understanding of the complexity of this simple word is essential to understanding the nature of *image-based composition*.

Image, n.

Imitation, copy, likeness, statue, picture, phantom; conception, thought, idea; similitude, semblance, appearance, shadow; app. containing the same root as im-itārī to imitate.

1. An artificial imitation or representation of the external form of any object, esp. of a person, or of the bust of a person.

a. Such an imitation in the solid form; a statue, effigy, sculptured figure. (Often applied to figures of saints or divinities as objects of religious veneration.)

b. (Less usually) Such an imitation delineated, painted, executed in relief, etc. upon a surface; a likeness, portrait, picture, carving, or the like.

c. Applied to the constellations, as figures or delineations of persons, etc.

d. fig. Applied to a person: (a) as simulating the appearance of some one, or considered as unreal; (b) as compared in some respect to a statue or idol. (c) In pregnant use, a person attracting amused or contemptuous glances, a 'sight'. colloq.

2. a. An optical appearance or counterpart of an object, such as is produced by rays of light either reflected as from a mirror, refracted as through a lens, or falling on a surface after passing through a small aperture. Such an appearance may also be a mere subjective impression on the sense of sight, as an after-image (q.v.), and the negative image or accidental image seen after looking intently at a bright-coloured object, and having a colour complementary to that of the object.

An image produced by reflexion or refraction is called in Optics a real image when the rays from each point of the object actually meet at a point, a virtual image when they diverge as if from a point beyond the reflecting or refracting body.

b. transf. (a) A collection of heat-rays concentrated at a particular point or portion of space, analogous to an image formed by light-rays. (b) Electr.

3. a. abstractly. Aspect, appearance, form; semblance, likeness.

b. concr. A visible appearance; a figure; an apparition.

4. a. A thing in which the aspect, form, or character of another is reproduced; a counterpart, copy. living image, a person with a striking resemblance to another; similarly spit and image and spitting image.

b. A thing that represents or is taken to represent something else; a symbol, emblem, representation.

c. A thing in which some quality is vividly exhibited, so as to make it a natural representative of such quality; a type, typical example, embodiment.

5. a. A mental representation of something (esp. a visible object), not by direct perception, but by memory or imagination; a mental picture or impression; an idea, conception. Also, with qualifying adj.: a mental representation due to any of the senses (not only sight) and to organic sensations.

b. A concept or impression, created in the minds of the public, of a particular person, institution, product, etc.; spec. a favourable impression; esp. in phr. public image. Cf. brand-image. Also attrib. and Comb., as image-builder, image-building. Cf. image-maker.

This sense developed from advertising parlance in the late 1950s.

6. A representation of something to the mind by speech or writing; a vivid or graphic description.

7. Rhet. A simile, metaphor, or figure of speech.

8. Math. The element or set into which a given element or set is mapped by a particular function or transformation; const. of the element by or under the function. inverse image, the set of all elements that are mapped into a given element or set by the function or transformation.

9. Radio. An undesired signal whose frequency is as much above that of the local oscillator of a superheterodyne receiver as the signal sought is below it, so that if allowed to reach the frequency converter it too will give rise to the intermediate frequency (and consequently be heard as interference). Freq. attrib., as image frequency, image interference.

10. Comb., as image-apprehension, image-association, image-bearer, image-brilliance, image-complex, image-field, image-formation, image-graver, image-monger, image-motif, image-pattern, image-sound, image-substitute, image-type, image-war, image-work, image-world; image-bearing, image-crowded, image-laden, image-like, image-ridden, image-seeing adjs.; image cluster (see cluster n. 3 b); image converter, an image tube, esp. one for converting an invisible image formed by infra-red or other invisible radiation into a visible one; image dissector, a kind of television camera tube in which a photo-emissive surface receives the image and the corresponding pattern of emitted electrons is deflected in a scanning pattern to and fro across a point anode, producing the video signal; image-doter, one who dotes on or is superstitiously devoted to images or idols; so image-doting a.; image-douly [Gr. δουλεία: see dulia]; image frequency: see sense 9 above; image iconoscope, a kind of television camera tube combining the iconoscope and the image dissector, the target plate receiving not the optical image (as in the former) but a pattern of emitted electrons produced by the image at a photo-emissive surface (as in the latter); xxxxxx, an image tube or other device in which an image is formed by light or other radiation on a photo-emissive or photoconductive surface and the resulting flow of electrons utilised to produce a corresponding visible image of increased brightness; image interference: see sense 9 above; image-man, a man who makes or sells images; image-mug, a mug or pitcher in the form of an image or bust; image orthicon, a kind of television camera tube in which a flow of electrons, produced as in an image tube, strikes a thin glass sheet and forms on it a pattern of positive charges corresponding to the picture, the video signal being derived from the variation this produces in aa scanning electron beam that strikes the other side of the sheet (neutralising the

charge at that point) and returns to the electron gun and associated electron multipliers with an intensity reduced in accordance with the magnitude of the neutralised charge; image toy, a small decorative figure in earthenware, esp. one made in the 18th century by John Astbury or Thomas Whieldon; image tube, an electron tube in which an image, formed by light or other electromagnetic radiation on a photo-emissive surface, causes it to emit a corresponding flow of electrons which may be used to reproduce the image in a different form (as in an image converter or an image intensifier). Also image-breaker, -maker, -worship, etc.

Additions 1997

Add: [10.]10 image processing, the electronic analysis and manipulation of an image, esp. in order to improve its quality; freq. attrib.

hence image processor n., a device or system for performing image processing.

Draft partial entry December 2003

▸ image consultancy n. chiefly Brit. the business or practice of advising on ways of improving the image of a person, company, etc.; an agency which specialises in this; cf. image consultant n. at Additions.

Draft partial entry December 2003

▸ image consultant n. a person or company employed to advise on how to convey a favourable or desired public impression, esp. on how to ensure positive media portrayal and good public relations, on personal appearance and style, or on how to improve brand recognition through a change of name, logo, product packaging, etc.

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▸ image consulting n. orig. N. Amer. the business or practice of advising on ways to improve the image of a person, company, organization, etc.

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▸ image editing n. the editing of images, esp. by means of a computer; freq. attrib.

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▸ image editor n. a piece of software or a device used for editing images.

Image, v.

[f. image n.: in the 15th c. instances (in sense 4) app. a. F. imager (13–14th c.).]

1. To make an image of; to represent or set forth by an image (in sculpture, painting, etc.); to figure, portray, delineate.

2. To form an optical image of, esp. by reflexion; to reflect, mirror.

3. a. To form an image or counterpart of; to copy, imitate, (rare).

b. To be an image or counterpart of; to resemble. (rare).

To form a mental image of; to conceive

a. Something to be executed: To devise, plan.

b. An object of perception or thought: To imagine, picture in the mind, represent to oneself.

5. To represent or set forth in speech or writing; to describe (esp. vividly or graphically).

6. To represent by an emblem or metaphor; to symbolise, typify.

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