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The Strength of Timbre and why it can be an invaluable tool to a Moving Image Composer

James Bagnall

A portfolio of original audiovisual work and Thesis submitted to the
University of Huddersfield in fulfillment of the requirements for Masters by
Research.

September 2014

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Re-Scored scenes from the motion picture Shutter Island (Scorsese, 2010) All rights of image belong to Paramount Pictures.

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Acknowledgements

I would like to thank my supervisor Elizabeth Dobson for her supervision of my work. Her faith, interest and support were invaluable over the course of this research. The organisers of CeReNeM and SMIC for some of the fantastic master classes I have been able to attend over this last year. My fellow students for their input, particularly Alfie Neal and Harriet Richardson who both let me bombard them with recording sessions. Finally special thanks to my family and close friends; I would not have been able to get here without any of you.

Abstract

The aim of this research is to demonstrate that timbre is one of the most effective tools found in a film composers tool box, and one that in modern film composition is used quite extensively. This research aims to build on prior research that provides an analytical understanding of sound, which demonstrate implications for timbre; including semiotic connotations, in sound design and conventional film based scores (Tagg, 2012 and Chion, 1994). Also to dissect how modern film composers, such as Hans Zimmer and Howard Shore, and sound designers, such as Richard Beggs, have used timbre in their soundtracks to offer a developing voice to conventional score based film soundtracks. In this thesis, I will also show how these insights have been applied in my own soundtracks.

In the composition portfolio, I have explored how timbre might create semiotic connections with the image, in a similar way to the composers and sound designers this thesis discusses. I have taken 20 minutes from the film *Shutter Island* and re-written the accompanying music with timbre being the main tool of composition. Therefore other compositional materials have been made use of. Even though these materials - such as harmony, melody and rhythm - are used, they are always dictated by timbre. Timbre always comes first, and for example, the melodies have been shaped by the different timbres that they are sounded by. This has been done, to show what a composer might expect to find musically in their own film compositions, when viewing timbre as a key component in their tool box.

1.1 Introduction

There are many established texts designed to teach scoring for film practice. Books such as *On the Track* (Karlin, F. and Wright, R. 2004), *From Score to Screen* (Kompanek, 2004) and *The Reel World* (Rona, 2000) have extensive chapters on how melody, harmony, rhythm, tonality or orchestration can be effective tools used by a composer. Timbre refers to the quality or character of a sound, as distinct as its pitch and intensity. Orchestration is linked to timbre, with it being the study of arranging music for orchestral instruments that offer timbre by way of instrumentation. Orchestration is an area of arranging that many scoring for film practice books draw attention to, more significantly than timbre in particular. 'Orchestral colour', is described as the timbral contrasts produced by combining orchestral instruments in the books *On the Track* and *From Score to Screen*, as well as something of 'value', implicating an attention to timbre. The possibility of timbral development through instrument combination, or 'blending', offers orchestrators versatility. A focus on 'blending' and shifting between different instruments on a melodic line, is presented as a method of providing contrast for the listener mainly on an emotional level (kompanek, 2004, p.58); implicating value in 'orchestral colour', and raising questions about the value of timbral development in orchestration.

Orchestration can be a powerful compositional tool, giving a composer a greater range of instrumental timbre and blending, but not all film soundtracks are exclusively orchestrations. The score for *Pi*, which is arranged and

features original compositions by Clint Mansell (1999), consists entirely of electronic instruments. *The Social Network* (Renzor, T and Ross, A. 2010) is an electronic dominated score, and when orchestral instruments are used, they have been electronically manipulated to co-exist with the style of the rest of the soundtrack. Though *On the Track* discusses mixing electronic and orchestral instruments (Karlin, F. and Wright, R. 2004, p. 297), it fails to progress beyond basic instrumentation and does not discuss the potential of timbre to a composer. Composer Gerald Fried believes a composer should study each orchestral instrument in detail to understand the technical issues when writing for them (Karlin, F. and Wright, R. 2004, p. 329), but there is no discussion of how advantageous discovering the timbral potential of an instrument is for a film composer. The use of creating new timbre's from instruments through digital audio processes and electronically created timbres is a relatively young field in film scoring. Many earlier texts that focus on orchestration, such as *On the Track and The Reel World*, overlook this though more contemporary texts such as *Gus Van Sant's Soundwalks and Audio-visual Musique concrete* (Kulezic-Wilson, D. 2012), Kieślowski's *Musique concrete* (Kickasola, J. 2012) and *Sound Design: The Expressive Power of Music, Voice and Sound Effects in Cinema* really explore the possibilities of timbre in film. The craft of an instrument's sound should extend to involving audio based explorations through instrumental recording, as smudging or manipulating its sound can be very rewarding. Especially when trying to musically illustrate a moving image.

Composers are often advised to use MIDI based sample-packs when recording a live orchestra is deemed too expensive (i.e. Rona, J. 2000, p. 86). Though these sample packs have made a lot of progress in the last decade, they are not cheap and many are required in considerable blending to create a compelling sound for the listener. This restricts the sound's potential and might possibly just result in a distracting sound to the listener. If a film composer records and collects a sound pallet instead, there are a lot more opportunities for them to experiment, instead of attempting to recreate the sound of a specific instrument.

This thesis considers the semiotic potential of film soundtracks composed by Hanz Zimmer, Howard Shore, Steven Price and Nathan Johnson. To understand meaning afforded by sound, it draws on literature of film semiotics (Metz, 1990, Monaco, 2009, and Stam, Burgoyne, Filterman-Lewis, 1992,) Tagg's theories of music and meaning (Tagg, 2012), Chion's view on sound in film (Chion, 1994), and Geoffrey Cox's approach to creating an effective atmosphere using timbre in a documentary soundtrack (Cox, 2013, and Cox and Marley, 2008). This practice is explored to argue that timbre is a compositional starting point for a film's soundtrack.

2.1 The Semiotic Role of Timbre

At a basic level, a composer giving thought into the choice of sound seeks to connect with the cinematic world they are attempting to sonically illustrate. On a more advanced level, choices made about timbre give a greater diversity of support to the themes of a narrative and re-enforce the semiotics in the film.

Film uses a range of semiotic devices in order to tell a story. Two of the most successful of these devices are montage and mise-en-scène. Montage involves a 'process in which a number of short shots are woven together to communicate a great deal of information in a short time' (Monaco, 2009). Where as mise-en-scène (put in stage) refers to the arrangement of everything that appears in a scene. "Mise-en-scène offers the filmmaker four general areas of choice and control: setting, costumes and makeup, lighting and staging (which includes acting and movement in the shot)" (Brodwell, and Thompson, 2002). Clearly these devices are used drive the story telling in a film, communicating layers of semiotic meaning to the viewer. For example costumes are chosen to reflect a character's personality and place of origin (Metz, 1974 and Stam, Burgoyne and Flitterman-Lewis, 1992). Attention to detail such as a characters' clothing, can provide real clues into the psychology and history of a character. This can be a vital starting point for a composer when writing thematic material for this character. In all, choices made provide both the viewer and composer with clues to the films story, as well as to the narrative themes that dictate the plot. It is an important first step for a composer to understand the important contents present in a mise-en-scène or a montage scene.

Though film is not a language in terms of spoken sound, it is made up of what we would refer to as signs and symbols (Monaco, 2009, p. 152). 'Semiotics' refers to the study of signs and symbols and their use or interpretation. A key approach of understanding this concept is: a sign/symbol that acts as a

signifier and its interpretation acts as what is signified. Tagg (2012) provides detailed information on this concept and uses a smoke alarm as an effective example; the alarm noise acts as a signifier, with it signifying smoke, fire and most importantly danger (Tagg, 2012, p. 166). Therefore semiotics can be used to read and grasp the language of the moving image, helping the viewer, and the composer, to understand a director's choices for production components particularly in a *mise-en-scène*.

Film language is not one of the only ways to communicate meaning. Tagg documents how music is also a strong communicator of meaning. As seen previously in his example on signifier and signified, the example Tagg uses is to do with sound. Music can also be a signifier, and timbre is a strong compositional tool in order to accomplish this. Timbre can be used semiotically to suggest two different things:

- [1] *ANAPHONICALLY* —the timbre in question has an *iconic* semiotic connection with sensations (such as rough, smooth, piercing, gritty, dull and warm)...
- [2] *SYNECDOCHALLY* —the timbre relates *indexically* to a musical style and genre, producing connotations of a particular culture or environment (Tagg, 2012, p. 306)

For an Anaphone, a composer might explore an instrument's extended techniques to draw out its physical sensations, such as the harsh, icy and metallic sensations heard from *sul ponticello* on a violin (Strange, P. and E. 2001, p. 3). For a Synecdoche, the listener will enter the film having already been exposed to many different genres of music and therefore already have associations with timbre, stemming from the fundamental language of instrumentation; for example a listener may associate a Koto with Japan or perhaps the bagpipes with Scotland (Larsen, 2005, p. 68 and Tagg, 2012, p.

306). Similarly, Tagg explains how the saxophone is iconically associated with the jazz music style and as Larsen wonderfully states; 'One does not have to be a music expert to be able to hear that baroque music is 'old' classical music' (Larsen, 2005, p. 68 and Tagg, 2012, p. 307). This is evidence that timbre can easily suggest musical styles. Depending on the listener's musical background, this suggestion would also make the listener think of philosophies, repertoires and artists connected to the said style.

In *The Lord of the Rings trilogy* (Jackson, 2004), composer Howard Shore uses metallic percussion during his motif music as a semiotic link to the characters associated with Isengard. He uses a 'five beat rhythm played on steel plates, Japanese taiks and metal chains on strings inside a piano. These sounds emphasise the industrial might of Middle Earth' (Shore, 2011). In this example the backbone of metallic percussion acts as a key signifier (Motif A). Shore is using this metallic nuances from these percussive instruments and creations (chains inside a piano) to signify the industrial revolution theme associated with the many protagonists of these films. Here the composer has chosen particular timbres for their association, during the conception of the music to semiotically illustrate this industrial revolution theme, a key theme that affects the story line of the Lord of the Rings trilogy.

All components of a film (including the soundtrack) are dictated by the script. Considering the overall package of a film, the first conception created is the script (the story) with everything else being developed from the script. The script influences the choice of set location, the type of actor cast and design of

costume, therefore this will also influence the music. Considering the structure of a film using Schenkerian Analysis as a broad analytical device, background is taken solely by the script, the middleground consists of set location/design, costume design, cinematography and music, with the dramatic performance of the actors being prominent in the foreground. Each of the middle layers use semiotics to connect to the script in order to give a clear understanding of the themes and narrative to the audience. As the soundtrack fits into the middleground, and timbre is arguably a strong way of communicating meaning in film, a composer who has carefully chosen the timbral pallet for their score is more likely to achieve semiotic connotations to the film's script.

2.2 Hearing Timbre through Music and Sound

Timbre offers a semiotic influence in film; used to suggest physical sensations and cultures, even philosophies, musical styles and religious movements. For a composer, timbre is an effective tool for communicating semantic meaning to the listener, in the examples presented previously of timbre, we have seen instruments take a central role. If we look further than instrumentation and into a films area of sound design, there is evidence of semiotic potential for a composer to use in a score within the quality of a sound's timbre itself.

Michel Chion offers three ways that sound may be interpreted presenting three listening modes: casual, semantic, reduced (Chion, 1994 p. 45). Casual listening refers to hearing the sound in order to discover its cause, a listener hearing a bird's tweet may associate it with a woodland area or early morning. Semantic listening involves hearing a spoken language or coded language,

such as Morse code, and thus hearing and understanding the information. While reduced listening focuses on the traits of the sound itself, the piercing effect of a high-pitched shriek would lead to signifying distress. (Chion, 1994 p. 45 and Sonneschein, 2001, p. 78). Each sound presents all of these potential interpretations. This enable a composer to understand what a timbre they have chosen can communicate. It also helps organise Tagg's (2012) interpretation theory: as with the case of the bird call, one sound sign can have various meanings. Chion's work derives from the four listening modes in electroacoustic music by Schaeffer (1966). This is a key texts a soundtrack composer might wish to digest, as it gives more depth and understanding to Chion's work on sound in film. By understanding and experimenting with these listening models, it gives composers knowledge on how we listen and receive sound. This is an essential first step for a composer in attempting to communicate meaning and messages to the audience. Furthermore, sound cannot just be a carrier of mere messages and information, but also spark the imagination and connects to human experience (Barrerio, 2010, p. 38).

The three listening modes of Chion allow a composer to better understand the meaning a timbre communicates. This also creates an opportunity to move away from foley sound methods of depicting the sounds in the scene. To creatively draw on sound to show the meaning of the image, highlighting areas such as the key themes of the narrative. This would give the sound design aspect more opportunity to replace scored music in a scene or be apart of the music.

Sound designer Richard Begg's work in *Children of Men* (2006) demonstrates this point. A high pitched tinnitus-like sound is used frequently as a motif, there is even a scene early in the film that explains the function of the sound, referring to it as the swan song of dying ear follicles. It is used after explosions such as a bomb explosion or a gun being fired signifying the cause of physical damage (Milani, 2011). In all cases of its use, especially through a particular chase sequence in the middle of the film, it signifies the death of a person; the swan song of the dying character. As we can see, Begg has used a universally understood sound, one would associate with pain and distress, to denote prior meaning and underscore one of the films central themes: death.

Timbre is clearly something a listener can naturally associate with, as seen in the previous examples of Tagg (2012), Chion (1994), Begg (2006) and Shore (2003), it can denote cultures, suggesting styles of music and displaying physical sensations. Timbre is something a composer can exploit in both sound design and music score. To see this in practice I have composed original music for three scenes from a film called *Shutter Island* (Scorsese, 2010). The following three chapter of this thesis demonstrate the ways timbre can be used in film, while also showing similar uses by composers in other films.

3.1 Synecdoche in Practice

Using timbre as a synecdoche will be the first example and looked at closely in this chapter. Just as timbre can effectively suggest cultures and genres of music, it can be pushed to suggest further in these cultures and genres to other areas, which can attune semiotically to the themes of the script.

One of the key themes of *Shutter Island* is the main characters (Ted Daniels) psychological dealing with his troubled past, part of that being his experiences during the Second World War. In Ted's mind, he believes that the institute's German director is a Nazi conspirator who experiments on the patients. This is a central plot within the film. During Scene 2 (2:36 - 5.00) Ted speaks of his past when he came across a concentration camp, we visually observe this experience along with various examples of Nazi iconography (see Figures 1-4 at end of chapter). In my soundtrack, focusing on timbres of the orchestra is an effective way to support this Nazi plot theme. The Romantic style of the nineteenth century and particularly composer Richard Wagner's music, suggests a style that has many symbolic references to Nazi Germany. Wagner's music was widely used for propaganda by the Nazi party as he was admired and idolised by Adolf Hitler (Vaegter, 2007, p. 100). Essentially, Wagner's music was the musical symbol of the Nazi Party.

Others have composed music that supports a similar semiology, For instance, in *Gladiator* (Scott, 2004) the antagonist Commodus, is written to draw parallels as a dictator with Adolf Hitler (Weimar, 2010, p.197). This is also suggested throughout the cinematography; for example director Ridley Scott

shot Commodus's grand entrance into Rome similarly to the large ceremonies seen in Nazi propaganda films (Pomeroy, 2004, p. 114). These semiotic connections with Nazi Germany in *Gladiator* are exploited in Zimmer's score. Zimmer makes use of orchestral instrumentation in a very similar fashion to Wagner. The score has been shaped to resemble a lot of the music from Wagner's two operas *Das Rheingold* and *Götterdämmerung*. During the grand entrance, to emphasise the grandeur of Rome, Zimmer underscores powerful brass blended with rising strings and explosive percussion in a Wagnerian style (Weimar, 2010, p. 197). Though Zimmer not only uses timbre, but also harmony, tonality and rhythm to evoke Wagner, it is my belief that timbre is the starting indicator in signifying Wagner. Had he opted for electronic timbres, even with the same use of harmony and melody it would not have been as effective at suggesting Wagner. It is the selection of these orchestral timbres that are the key ingredient of the synecdoche in suggesting to the listener what the composer wants to signify.

Scene 2 (2:36 - 5.00) is a great place for experimentation with this. During this part of the scene Ted recounts his experience walking through a Nazi Concentration Camp. With orchestral timbre being a large project in itself to record and sample packs not being an entirely accurate representation, I decided to solely use a live piano and violin (Sound 1). The music is written similarly to a nineteenth century violin Sonata, though many features of Wagner's style (eg. harmony, melody and rhythm) have been observed and implemented, I felt the intimate sound of the piano and violin enabled an exploration of timbre to create a style icon. Recording these instruments live

allowed more immediate opportunity to exploit the timbre as an anaphonic function as well; an airy violin technique (Sound 2) has been used in scene 2 (3.40), being heard when we see the corpses of dead prisoners. The open but harsh sound is placed on top of a diminished 7th chord from the piano, to symbolise the uncomfortable bleak memory that is presented.

The quality of these two timbres (piano and violin) are the trigger of the synecdoche, suggesting to the listener the nineteenth century Romantic style, and to some extent also Wagner. I believe this is an effective semiotic indicator for the music to show the Nazism plot theme. This offers a method of using timbre as a synecdoche, beyond the more simple use of instruments and genres.

Figure 1



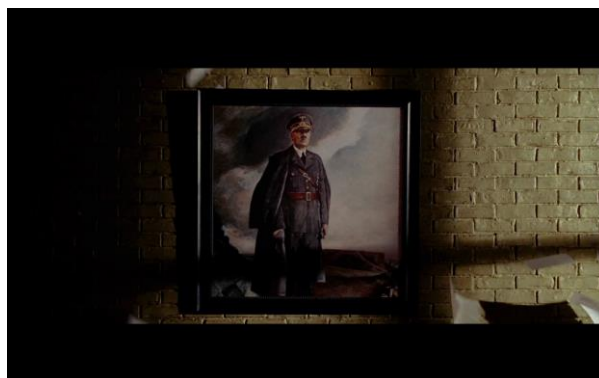
Figure 2



Figure 3



Figure 4



3.2 Found Sound and Synthesized Atmospheres

Timbre can be used to provide atmosphere. In the documentary sound work of Geoffrey Cox, there is an aim for the sound to render the image as an accompaniment, by being the dominant signifier (Cox and Marley, 2009, p. 60). The soundtracks of *Cider Makers* and *Listen to Nice* (Cox, G. And Marley, K. 2011) both comprise of sounds recorded from the location of filming to create atmosphere and ambience (Cox and Marley, 2009, p. 59 and Cox, 2013, p. 91). In both films, sounds that are foregrounded are not necessarily present visually. In *Listen to Nice*, during the images of the beach area, sound extracts of an accordion fade in which end on a chord further harmonised by a piano. Though neither are visually present, these sounds, particularly the accordion, denote a French setting (Cox, 2013, pp. 95). Neither are seen played on screen at the point of sounding, both were recorded in Nice though and are used to demonstrate the atmosphere and soundscapes of Nice, this created atmosphere complements the setting beautifully.

Nathan Johnson's work on *Looper* (Johnson, 2013) - though in film fiction rather than documentary - employs a similar concept. The aim was for the music to feel as if it was born out of the futuristic environment of the films setting.

This [score] is super different from the last couple of movies we [with director Rian Johnson] have done together, in that it...Looper is not a heavily melodic score, it is mostly rhythmic and atmospheric...We didn't want to go down the road of traditional action movie score, so we

started talking about the idea of creating a totally new type of orchestra through found sounds (Johnson, 2013).

These sounds include industrial fans and the 'Gat Gun' used by the film's character Kid Blue. Johnson has created a sound pallet, out of these 'found' sounds, and then gone about creating percussive rhythmic basis and atmospheric soundscapes. Most of these sounds have been sampled and digitally manipulated, but there are many that have just been placed into the score. Creating atmosphere out of the sounds inhabited in the world of the film is a strong way of connecting the sound to the image.

Steven Price's score for *Gravity* (Cuarón, 2014) is another example of timbre used as a tool to create atmosphere. Price and Cuarón explored the challenge of creating a soundtrack in space: '...as we know we don't have much sound with there being no sound in space? There's no reason that it should be a conventional film score' (Price, 2013). The score consists of low rumbles and vibrating bass timbres especially during the start of the film (Ayers, 2013). They decided to emphasise the sounds that are in the immediate environments, such as the space suits, to create music atmosphere by sonically illustrating the reaction between the space station and suits in the space environment.

The atmosphere presented in both *Looper* and *Gravity* works within the music score, and is then enhanced with conventional timbres such as vocals and strings towards the climax of both film, these are used to illustrate the emotions. For example in *Gravity*, the atmospheric soundscapes overlap, then move to the main theme (Motif B): 'Music signifying mood and identification at

the same time is quite common, especially in theme songs' (Kassabian, 2001, p. 59). These themes are both dominated by the violin. One could argue that the minor key and melody play a big part, but had a banjo been chosen instead, it would not have been able to create the emotional indicators needed (Huron, Anderson, Shanahan, 2014, p. 29). A violin's timbral quality, so often associated with pain and sadness (Kassabian, 2001, p. 17), acts a signifier and sonically resonates the emotional climax of the film. This constitutes a shift in timbre within the central music theme that is clearly used to emphasis the change in mood. The implication here is that greater emotional intensity may be achieve focusing on what timbre offers through the composition, arrangement and performance. From composers Johnson and Price we can see great examples of how timbre can be used as a semiotic tool within a soundtrack. Both composers emphasise atmosphere and both used timbre to develop this with found sound and electronic synthesis.

This emphasis on the semiotic capacity of timbral atmosphere is something I've attempted to explore in my three scenes. Scene 2 (0:00 – 2:00) contains rain samples I recorded in a local park (Sound 3). They are blended with white noise and flute whistle tones (Sound 4 and 5) to represent the wind. These sounds support the atmosphere of the forest storm the two characters are walking through. In scene 3 (2:15 – 3:42) Ted walks through a dream version of the Nazi Concentration Camp. I have created a synthesized drone (Sound 6) which attempts to signify sensations such as murky, thick, hazy, the kind of attributes associated with smoke. This drone then has violins and a piano added to it, the violin and piano link to scene 2 (2:37 – 4:14), where they are

present during the concentration camp imagery. Scene 3 uses digital manipulation, particularly on the piano (Sound 7). After recording a piano, playing sustained arpeggios, the audio processing involved removing the attack so the sound can slowly breathe in. By removing the attack, the timbre sounds somewhere between a piano and an organ. The minor harmony dominated chord progression provides melancholy to the dark sound, but the ambiguous timbre is the strength and first signifier of the various meanings signified. This sound attempts to create a haunting atmosphere by suggesting the organ-like timbre and the cultural meanings associated with it

I have also used these atmospheric sounds as foundation for the musical themes, to further emphasise particular moods or emotions. Scene 1 is a prime example where in a similar manner to Johnson and Price, a Violin melodic line is used to draw out the sadness in the scene. This takes place over the top of the other sounds which symbolise the dream atmosphere. As Scene 1 progress to a dream collapse, this violin's role begins to move from displaying emotion to symbolising the collapsing dream, by becoming more and more stretched and manipulated like the other sounds representing the collapsing dream.

3.3 Timbral Manipulation

After looking at the examples of Price and Johnson's use of timbre, manipulation of timbre has been discussed and is something to focus on in further detail. It can also be an effective use of timbre by drawing on the physical sensations created to suggest meaning. Manipulating a sound is an effective way of making use of timbre in an anaphonic way. As we have already looked at Hans Zimmer's use of synecdoches, I am going to also discuss his use of anaphones.

A prime example of timbre manipulation in his work is in the Dark Knight films. In *The Dark Knight* (Nolan, 2008), often his motifs are just one sound, his use of timbre proves effective in communicating meaning of the themes and characters in the film. For example one of the core motifs for the title character (motif C), which can be as simple as car door slammed which has been digitally manipulated, creating a kinetic anaphone for the physical sound of Batman's cape. The cape of Batman is widely used by him in the film as well as being iconic to the character (Billington, 2008, and Zimmer, 2008). Zimmer's theme for the Joker (motif D) is another example that of manipulating timbre. Motif D is two long sustained notes. There is nothing rhythmically or melodically significant, but the way that timbre has been used to emphasize the dissonance in these two clashing notes is what is most interesting. Zimmer uses a cello to play both, also using extended techniques and electronics to constantly manipulate and develop the sound. The cellist strums the notes moving between *sul tasto* and *sul ponti* cello to generate different variants of the sound, some being harsh and raw and some

suggesting force. They are joined by other samples of distorted guitars and the same cello, but using unusual objects to strum the strings; such as razors and other metallic objects. Finally Zimmer has processed this sound digitally, manipulating the timbres, thickening the sound and stretching it (Billington, 2008, and Zimmer, 2008). The resulting timbres for motif D are unpleasant and disturbing. For the main antagonist theme music, Zimmer has used the harsh, disturbing sound produced in motif D to symbolise the Joker's themes of terror, anarchism and unpredictable fearless nature. Considerable thought went into this idea and reflects how timbre can be used to enhance themes, atmospheres and characters.

This emphasis on timbral manipulation is something explored in my portfolio. I have experimented with different performance techniques and then digital processes, such as granular synthesis; the timbres used to illustrate the fragile mental state of the protagonist involve sounds that have been manipulated in some way. After recording different violin techniques such as sul ponticello, col legno and harmonics I experimented with them to develop new timbres. Sound 8 is a col legno sample that has been stretched, boosted in volume and slight reverb added. By manipulating this timbre it has created a soft unstable sound which develops. I believe it illustrates the fragile mind of the protagonist. It appears through out the three scenes, but some key examples are; the beginning of scene 3 where Ted begins to experience a migraine and scene 2 (5:00) when Ted is again showing mental difficulty. Another example of manipulating timbre is during the climax of scene 1 (3:15 – 3.43); here the dream that the protagonist is experiencing begins to

collapse. To illustrate this timbrally, most of the audio used in the scene becomes granulated. Much like Wishart's (1996), unstable morphology concept, many of the timbres begin dramatic changes, with no real sense of direction (p. 95). For example, the main melodic line the violin played during this scene (Sound 9) has been stretched and granulated (Sound 10). This process has been applied to many different extracts from the music in this scene, such as the accompanying strings and background fire samples. These audio manipulations are used to emphasise the feeling, that the music is collapsing, in the same manner that the dream environment is on screen.

4.1 Sound Composer

My compositional portfolio demonstrates many experimentations with the three uses of timbre (synecdoche, atmosphere, manipulation) that have been discussed in the previous chapters. Looking at my methodology in detail, I will discuss how these are all used in relation to each other. Clearly they all offer the ability to express meaning, but balancing them was challenging. I will also speak of how timbre fitted into my composition toolbox and how it affected other materials, such as melody.

Music Concrète is a genre developed in the twentieth century by musicians who created music from sound derived from instruments, environments or computer-based digital signal processing. This genre has been recognised by many filmmakers as having vast potential particularly in creating a sound environment (Monaco, 2009, p. 213). Filmmaker Kieślowski incorporated such ideas into the sound world of his films believing it 'could give sensuous

intensity and shape to the narrative ideas put forward in a film and at the same time provide provocative and revealing occasions for audience misdirection' (Kickasola, 2012, p. 67). This style can communicate meaning in sound design creatively and direct the listener in different ways. Timbre has been used in my portfolio as a way to shape the sounds present, to reflect the semantic meaning of the chosen films themes and narrative.

Documentary sound designer Chris Watson's use of Music Concrète techniques, features three components: Atmosphere, Habitat and Featured Sound. Atmosphere creates the base of a piece, a recording with a narrow dynamic range would be selected lasting the entirety of pieces duration. Habitat are a selection of shorter recording with a wider dynamic. These short samples are not too direct to the listener attention, but are able to fade in and out. A featured sound would be the shortest length but most striking being a sound that would capture the listeners immediate attention. Watson demonstrated this with a lions roar; an atmospheric African landscape was the base, birds and bug noises took up the habitat and finally a short burst of the lions roar was the featured sound (2014, Watson).

Developing this method, offered great potential for balance and organisation of timbre in my portfolio. Atmospheric timbres acting as the base, habitat providing the thickness of the middle ground material and then featured sound being the most prominent, say perhaps a motif. For example in Scene 1, the atmosphere base moves between a glitching record player to the crackles of a log fire. Through effects such as delay, the fire sound grows and disorients

to denote and support the collapsing atmosphere of the dream. The accompanying strings provide the habitat, and the featured sound is the lead violin. This method has been used throughout my portfolio acting as a way to structure the different sections in the three scenes.

Having explored film scoring and sound design in my portfolio, Music Concrète has offered a way of linking the two. “Aesthetically, perhaps we are at a point where musicians and sound designers inhabit the same creative space” (d’Escrivian, 2010, p. 71). With this in mind, I have borrowed elements from both areas in my compositional style, working in the middle gap between the two, perhaps as a Sound Composer, rather than only in one discipline. Giving a lot of thought to timbre, I have collected many sounds, avoiding focusing on orchestral virtual instruments despite the high quality on offer. By recording a small group of instruments (such as violin, flute and piano) it has given greater room for experimentation with more realism in sound; having a realistic sound offers a stronger semiotic connection with the themes and narrative of the films script. Therefore being much clearer for the listener to have an understanding of the semiotic messages in the film’s soundtrack.

So timbre has become the focal core tool in my toolbox. Though other musical elements have been used, I always attempted to modify them with a focus on timbre. Melody is probably the second most important area after timbre. I have used it in a similar way to Johnson’s soundtrack in *Looper*. Johnson shows little development to the melodic material used, instead melodic motifs that are repeated are developed through timbre, either by electronic

automation or simply moving the motif to a new timbre, usually one he has created. An example of this in my portfolio is during scene three (3:51 – 5:15) a trumpet motif (sound 11) is constantly repeated with only a octave in pitch changed, instead of developing the motif melodically, it is developed through equalisation. By doing this I felt it would add to the haziness of the dream atmosphere by automating and smudging the sound.

5.1 Conclusion

In film, timbre is a compositional tool that has a lot of areas to explore for a composer. It is effective at showing the semiotic connection to the themes and narrative of a film in the music through both music and sound design. As academics such as Tagg have explained, the soundtrack signifies and connects us with cultures and even physical sensations, which we as composers can manipulate to highlight the key features in a scene that should be drawn to the listeners attention. There are also many different timbres on a sound design level that a listener would expect in a scene which can also provide starting material of what timbres to begin composing with. Sound designers such as Richard Beggs and Geoffrey Cox have both shown to be very creative with their sound design output and, in some cases, their work with image requires no music. Their work may be described as musical.

Choices relating to timbre stem from the important narrative material such as themes and atmospheres and these are the areas that should dictate a composers choice in timbre. I have also shown how composers have used timbre in this way, with Zimmer using this tool as a way to reflect the psychotic

personality of the Joker in *The Dark Knight* and Johnson using timbre to reflect the atmosphere of the dystopian future in the film *Looper*. This view on timbre draws from both the sound designer and a composer. Taking ideas from both and using them in a creative way and thus being able to do the groundwork of both areas, offering an opportunity to take expected sounds even from a sound design level and use creatively in order to be able to suggest, confuse and direct the listener in which ever way a filmmaker wishes. This has led to conception of a role that I have coined as a Sound Composer, where a composer can use timbre to drawn on any type of sound s/he feels might be important for the films soundtrack.

This is something I have attempted to demonstrate in my composition portfolio, where I have created my own timbres, taken existing instruments and used their extended techniques as well as electronically manipulating them and other environmental sounds. I believe I have been able to create and use timbres that semiotically suggest many of the themes present in the narrative. Perhaps in the future, a series of reception tests analysing how a listener reacts to these sounds might be a good way to critically evaluate how effective they are.

To summarise, it is my belief that timbre might receive greater attention in film scoring texts, since by using timbre in this way it can be a valuable tool in a composers toolbox. A deeper consideration of timbre, particularly looking to record or create timbres in comparison to using expensive orchestral sample

packs, can also create a realistic and strong sounding score that is able to clearly communicate meaning.

6.1 References

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