

COLLABORATION AND INTEGRATION:

**A Method of Advancing Film Sound
Based on The Coen Brothers' Use of Sound
and Their Mode of Production**

Two volumes: volume 2

Randall Barnes

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APPENDIX A

The Nature of Sound and Its Unique Impact on Filmmaking

This section highlights the various roles music, effects and dialogue play in filmed narratives. All of these elements are examined from a conceptual and practical perspective. The areas of discussion include the following:

1. A discussion of the unique qualities of sound that set it apart from image.
2. A review of the functions of aural ingredients and an exploration of their wider applications, especially in terms of how they can be used as story-telling devices.
3. The theoretical underpinnings that help define how each element of sound has been used independently and collectively in the filmmaking process.

All of these items will then be applied in the interpretations of the work of the Coen brothers in next part of the paper.

Our minds treat what we hear differently from what we see. Fundamentally, sound cannot be shut out of the ear (unless by artificial means) but images can be denied by closing our eyes. We can hear from all directions simultaneously, whereas our sight is defined to a restricted visual field. Our vision is limited to a narrow band of the electromagnetic spectrum. In contrast, our hearing has a broad range of perception because of our sensitivity to a great number of frequencies. We cannot distinguish the different elements in a mixture of light, but we can differentiate between

separate notes within a chord. Importantly, sound can present our minds with coded information (language) or un-coded information (noises) that we must interpret: a creaking door, the sound of waves or a gunshot, especially if the source of those sounds is not within our field of vision. The source of the information generates and reinforces associations and emotions in our minds. However when the source is obscured or it is ambiguous, we then seek an explanation for that sound or try to construct an aural object to form an approximate association. The assembly of visual data also functions in this way. Unlike the process for sound, however, there is usually no delay in identifying the object unless the image is blurred, moves too quickly or is at an extreme distance.

Film audiences use the same tools of sensory perception with the given elements of the fictitious film world, regardless of their correspondence to the actual world. Their minds make the same interpretations of the aural and visual content and the same approximations with ambiguous ingredients as it happens in everyday life. Confirmation of this comes in one of the earliest public exhibitions of film, when the audience feared the impact of an on-coming train. Since then cinemagoers have become more sophisticated, but they still accept the plausibility of the illusion on the screen through the suspension of disbelief. Similarly, filmmakers have grown in sophistication in perfecting the illusion. As noted previously, this was predominantly achieved through the visual elements of the narrative. Exploiting the wider dimensions of aural perception was rarely employed. Perhaps this relates to the elusive nature of sound itself.

Sound is abstract. It contains no meaning in and of itself. It gains an identity through the mental associations we as listeners make, regardless of whether the source is known or not. A sound, therefore, maintains relative

independence until it is married to a visual object. It is then that we relate one with the other. In other words: "there is no natural and pre-existing harmony between sound and image" (Chion 1994, p.xvii). Repetitions reinforce and expand our associations. As listeners hear a wider range of sounds, they develop a broader 'menu' of corresponding sound-images. Throughout our listening lives, we do not constantly reassess sound input. However, we fine-tune our perceptions of the variations of individual sounds and we make allowances for new discoveries. As we develop and add to this 'menu,' sounds may take on additional meanings by attaching themselves to memories, especially those with emotional significance. While we may try to categorise every sound we hear, there will always be those that remain unknown or ambiguous.

A film, in its attempt to represent a plausible reality, is forged through the amalgamation of specific sounds and images. In other words, a film is not *seen* and *heard*, it is *heard/seen*, that is, despite the distinction between the two elements, they are not considered separate by the filmgoer. They are experienced in the same way they would be experienced in the real world. Thus when sounds are joined to images in a given film world, audiences are asked to interpret them through the aforementioned process of association. This fundamental infusion of sound and image is what Chion (1994, p.63) called *synchresis*: the combination of the words *synchronism* and *synthesis*. The acceptance of this *synchresis* forms the crux of Chion's film sound theory: the 'Audio-visual contract'. He defines this symbolic pact as the agreement of cinemagoers when they consider the two elements to be participating in one and the same entity or world (ibid., p.222). The custom in Hollywood has been to highlight the most familiar correlations. Therefore, by producing 'what-you-see-is-what-you-get' films, they have ignored the fact that filmmaking offers the advantage (over reality) of separating sound

and vision completely. The ability to divide these two elements provides filmmakers with the opportunity to add a further dimension of meaning to their narratives. Above all, it allows them the prospect of manipulating the audience's sound-image expectations. For example, 'normal' interpretations could be challenged through the use of ambiguous or less familiar sound-images. Regardless of whether this is a subtle or obvious gesture, the non-synchronous use of film sound can help signify something beyond the image.

Implicit in the nature of film is the fact that the screen does not hinder the emission of sounds. Unlike images, which are confined to a specific rectangular viewing area, aural ingredients can represent objects both within and outside the screen. Containment again only manifests itself when filmmakers marry sound and image. This use of aural ingredients is called *synchronous* or *onscreen* sound and it identifies objects or actions whose source appears within the shot to reinforce the concrete 'reality' of the film world. The opposite, called *offscreen* sound, distinguishes any sonic element whose source is not revealed within the confines of the rectangular space. Though emitting from a point beyond the screen, it is perceived to be coming from within the shot. It occurs through our natural ability to adjust our spatial awareness to the most plausible source; a psychological phenomenon called localisation. With the advent of Dolby surround and subsequent developments, this use of sound has become more commonplace.

Though reasonable, these distinctions assign to aural ingredients a role subservient to that of the image. Bordwell and Thompson (2004 [originally published in 1979]) expanded the notions of *onscreen* and *offscreen* with the terminology, borrowed from textual analysis, that reflects film sound's unique qualities more effectively. They introduced *diegetic* and *nondiegetic* sound, which define sound's temporal relationship to the diegesis of the narrative.

For Bordwell and Thompson (p.331), *diegetic* describes a sound that is either “visible within the frame – onscreen” (e.g. a person playing a fiddle in shot) or a sound that “comes from within the story [...] but in a space outside the frame” the sound takes place at the same time as the image in terms of the story events” (e.g. an unseen door slamming). Whereas *Nondiegetic* sound is “[that], which is represented as coming from a source outside the story world” (e.g. score or narration) (p.366). In doing so, they expanded the previous notions of synchronisation.

In terms of the notion of *offscreen*, Chion offers a much broader definition. He adopts the word, *acousmatic*, which had been originally described by Jérôme Peignot and theorised by Pierre Schaeffer. It refers to “sounds one hears without seeing their originating cause” (ibid., p.71). In addition to invisible sources within the context of the film world, Chion also includes radios, hi-fi systems and telephones as media that transmit *acousmatic* sound. He then suggests there is a third notion of sound; that which is *nondiegetic*. This denotes any sound whose source is not only absent from the image but it is external to the film world (ibid., p.73). These aural ingredients tend to refer to those classified as abstract, namely ambient sound effects and musical underscoring. However, *nondiegetic* can also be used to define narration or voice-overs, as they too are disconnected from the actual content of the film world.

There has been criticism that these three sonic distinctions create too many exceptions. Chion, therefore, introduced further definitions to refine his typology of sound. His response was to state that these new conceptualisations of film sound were not absolute; they were merely “analogous to zones among which one finds many shadings, degrees and ambiguities” (ibid., p.75). Additionally, criticising these notions as rigid

categories neglects the fundamental concept that sonic elements are created separately from the image and therefore, they can move freely from one category to another. This aural autonomy is expressed in a number of ways. It is common in films to give the impression of movement to have sound effects (e.g. footsteps) begin as an acousmatic noise, which then become diegetic as they are synchronised to an image. Film music often shifts from diegetic to nondiegetic (or vice-versa). In addition to numerous musicals, Chion (ibid., p.81) cited cases where:

music begins as [diegetic] music and continues as [nondiegetic] music by separating with the action. Or inversely, a grand [nondiegetic] music cue can narrow into [diegetic] music being played by an instrument on screen.

Other aural items that transcend these categories include those that represent something within a character's mind or body. Chion (ibid., p.76) classified these noises as *internal sound*, which he subdivides into two types: *objective-internal* (e.g. audible heart beats and breathing) and *subjective-internal* (e.g. mental voices and memories).

Furthermore, Claudia Gorbman (1976) had originally included a further narrative level that added to these descriptions of *internal sound*: the meta-diegetic. This refers to any sound "apparently 'narrated' or imagined by the character as a secondary narrator" (ibid., p.450). This type of aural ingredient can be heard in instances where a voice echoes in someone's head or the sound is an aural hallucination.¹ These sounds suggest the psychological aspects of the emotion of a character or the peculiarity of a situation, and thus give a key insight. Building on this notion, Malden Milicevic (2000?) applies Vlada Petric's idea of the *oneiric cinema* (1995) to

¹ Gorbman (1976, p.450) cites the ringing voice of Christopher Cross' (Robinson) murdered wife in SCARLETT STREET (Lang 1945) and the isolation and repetition of the word 'knife' in Hitchcock's BLACKMAIL (1929) as an example of the former and the audible sounds of a mimed tennis match in BLOW-UP (Antonioni 1966) as examples of the latter.

sound. Petric had adopted the ancient Greek word *oneiros*, which means 'dream', to identify any altered state of consciousness. Milicevic advances and refines this further by suggesting that it refers to any departure from reality that is indicated by a significant deviation from normative film sound. Thus oneiric mood is often communicated through the complete absence of an expected sound, the muting of key aural ingredients (when other sounds are present) and an abrupt edit or radical changes in volume.² In addition to actual dream states, Milicevic associates this type of sound with those that can normally be heard during sequences involving transitional flashbacks, moments of deep concentration, unease in a 'foreign' environment and horrific revelations. This category of sound also echoes Chion's (1994 p.87, 222) idea of *extension*, which designates the degree of openness or largeness of the cinematic space suggested by the sounds within and beyond the visual field. At one extreme, the space can be minimised to those sounds perceived by one character (*null extension*). At the other extreme, multiple layers of a soundtrack can be used to expand the perception of the depth of the entire film world (*vast extension*). The more the *extension* is reduced the more likely the cinematic space will express a sound event that is less 'natural'.

To maximise the intelligibility of multiple layers of sound in a film, Murch (1998)³ has suggested a theoretical approach to film sound based on the colours of the rainbow. Beginning with the two extremes, he equates violet (the shortest ray of light) with language and red (the longest ray of light) with music. Murch further identifies language as *encoded*; it has a set of rules that the listener is required to use in order to understand the meaning behind them. Music has no intervening code; therefore it is classified as *embodied*.

² An example of this can be heard in *THE INNOCENTS* (Clayton 1961). As Miss Gibbons (Kerr) is outside picking flowers, you hear lush atmospheric noises. They suddenly cease and after a few seconds are replaced with electronic tones. They announce the presence of a ghostly individual. Once Kerr notices him, the scene returns to the garden and the lush soundtrack reassumes.

³ This information is taken from a transcription of a talk entitled *Clear Density, Dense Clarity* given as a handout at the 1998 School of Sound conference in London.

Between these two colours, to represent yellow, Murch placed sound effects, as they are neither music nor language (though effects may express a music-like quality or a non-human language). The remaining colours identify the 'musical' effects, such as atmospheres (orange) and the 'linguistic' effects (blue-green), such as footsteps and doorknocks. Murch suggests that through a proportionate spread of colours in the soundtrack, a balance could be struck between potentially conflicting sounds.

This approach has also helped Murch to reconsider his two-and-a-half rule.⁴ He discovered it was applicable if the aural ingredients only corresponded to one side of the light spectrum; for example, all the sounds were encoded (two simultaneous conversations and footsteps) or all embodied (musical score, ambient effects, birdsong). Upon investigation, he noted the total number of aural layers could be doubled, if sounds from different parts of the spectrum were skilfully blended together. He based this on how our brains process coded and un-coded information. Murch explained that we are more directed by the image when confronted with linguistic (encoded) sounds because we use it to decipher the meaning of the given sounds. In contrast, when we are presented with embodied sounds, they require less linguistic decoding. Their significance is not always immediately discernable through the image and therefore requires our brain to process them differently. Murch recommended limiting linguistic decoding to less than half of the sounds, so the minds of the audience would be able to discern all the individual elements on the soundtrack without distraction or confusion.

⁴ While working on THX 1138 (Lucas 1971), a film he had also co-authored, Murch noticed that the overlapping of similar sounds gave the impression of a much larger noise that did not require perfect synchronisation. However, the layers had to be limited to three. If you had two and a half to three sounds of footfalls, the mind would believe they were co-ordinated without the effort of exact positioning (Lobrutto 1999, p.87).

Sound's General Influence on the Narrative

As can be noted through the descriptions in the previous section, aural ingredients are more than a utility for they can give the narrative a further dimension of meaning. The 'hidden' nature of these ingredients allows them a variety of roles within the structure of a film, whether standing on their own or whether they correspond to the visuals. Sonic elements encourage and augment an audience's imagination so that associations are conjured up within the content of the film. Sounds can be used to focus attention on a specific item, or on an entire sequence. As sound is not constrained by the screen, it can also suggest a much broader perspective.

Aural objects can be manipulated in a similar way to picture. On the most basic level, sound is editable; that is, it can be cut, assembled and moved as desired. Image editing produces 'shots' and these are available for analysis, whereas sound editing creates no comparable unit of film. Chion (1994, p.41) stated the multiple layering of sounds makes the recognition of an individual unit impossible; however, this would be equally true if one were to superimpose several images. He adds, that "the very nature of recorded sound events allows us to join one recorded sound with another in editing without the join being noticed" (ibid., p.42). These inaudible cuts are hidden as much as the joins in images can be hidden. When deliberate splices in sound are used, as in Godard films, they create a jarring effect, which disrupts the 'normal' perception of sound and image. Since separate sound units are usually indiscernible, Chion (ibid., p.45) suggests is that the aural ingredients should be identified and analysed according to the criteria specific to the type of sounds heard: dialogue (linguistic), noises (sound events), music (melodies, themes and rhythm). Perhaps, because of this inability to investigate the elements as one would with a specific visual sequence, there has been a reluctance to begin more research in the uses of film sound.

The most common function of the soundtrack is to create an 'audiovisual chain' (ibid., p.47). Once edited, sound is used to disguise the splices between shots. This helps unite the flow of the images and mask any unavoidable errors. According to Chion (ibid., p.47), this serves three purposes:

- (1) Overlaps are used to bridge time sequences
- (2) Atmospheric noises are used to establish the appropriate setting
- (3) Nondiegetic music homogenizes images in time and space.

Acousmatic noises and musical underscoring can also be woven intermittently throughout a film. These tend to add to the overall consistency of a film by reinforcing specific objects or actions. More often these aural elements are expressed by repeating rhythms or recurring musical gestures, such as: the tick of a clock, the bark of a dog or a melodic cue that is heard every time a scene begins or ends. This use of sound not only aids in the storytelling, but it also helps establish the pace of the film.

Another general function of sound is that it can have great influence on how an action or word is interpreted when it is separated from the visual film world. As audiences have established associations, many of which are universal, altering the expectations of a particular sound can bring in a further layer of meaning. Music especially, has an anticipated trajectory, based on time-honoured conventions in composing. Similarly, effects and dialogue have an accepted association to a specific object. Thus, an incongruous sound-image can be used to disrupt the 'natural' course of events. Quite often this produces humorous scenes, as in Tati films. However, this technique can also be used to portray the antithesis of an emotion, mood

or event in contrast to the visual, for example, when happy sounds (e.g. children's laughter or light-hearted music) are set against a sad event (e.g. a funeral). This is what Chion (ibid., p.8-9) called *anempathetic effect*, as a completely conspicuous indifference to what is occurring is communicated. In most cases, music is responsible for this juxtaposition of the sound-image, but it is also possible with effects or dialogue.

Sound also influences the perception of time in a film. Aural ingredients ensure the trajectory of each shot; they assure the filmgoer that scenes are moving towards a goal. Chion (ibid., p.19) explained that because events are oriented in time in a precise and irreversible manner, the sounds that accompany them are also fixed in the same progressive fashion. In comparison to image, sound has a set course with an unalterable beginning, middle and end. The mechanics of sound (the attack, the sustain and the decay) all make it nearly impossible for it to be identified as the same sound when played backwards. Whereas images shown in reverse usually have a notable similarity to identical forward-moving images, rarely do we hear sounds reversed in films without a matching image that is also moving backward in time.⁵ As a result, the natural trajectory of sound acts as a guide to the cinemagoer; it orientates them through each scene, reassures them of the transitions and brings closure to their experience.

⁵ Examples include a broken object whose parts all fly back together, a demolished wall that reconstructs or a swimmer who comes out of a pool feet first only to settle upon the diving board (Chion 1992, p.19-20).

Film Sound: MUSIC

Instrumental film music is the nearest that music comes to the sublime. The sense of hopelessness we feel at trying to describe music adequately, to pin it down, is bound up in the emotional impact it has upon us (Lack 1997, p.64).

As with any form of music, film music defies strict definition. Its abstract nature precludes an objective enquiry into the significance of its melodies or rhythms. As Murch suggested earlier, music lacks the linguistic codes needed for intellectual deduction. Culture and history have furnished music with accepted associations; over the centuries composer and musicians have attributed significance to certain musical phrasing, but these do not denote definitive interpretations. Its abstruse nature, therefore, grants film worlds an additional emotional resonance that helps the story-telling process, while remaining independent of the events on screen. Because of this, the composer Pierre Jensen (in Lask 1997, p.7) called film music a 'foreign body'; saying that it represents the connection between the tangible and the intangible, as it suggests atmosphere and feeling.

The non-representational nature of music allows it to bypass conscious awareness. Its purpose is not noticed in and of itself; its role extends beyond our immediate perception. Therefore, the functions of film music can exceed the confines of the screen. Most of these are expressed at a lower level of consciousness, or 'unheard'. According to Gorbman (1987, p.68), this virtual inaudibility of film music allows for two types of bonding between the audience and the film:

- (1) Identification – music enters to satisfy a need to compensate for, fill in, the emotional depth not verbally representable.
- (2) Spectacle – it lends an epic quality to the diegetic space, it evokes a

larger-than-life dimension which, rather than involving us in the narrative, places us in contemplation of it.

In this way, music helps to maintain the plausibility of the film. It brings consistency to the structure of the overall narrative by functioning in roles that are internal (psychological) and external (hyperreal). The 'hidden' nature of film music means that neither of these becomes too emphatic in demanding attention. On the contrary, they cooperate in their enunciation of the film world.

By tapping into the 'subconscious', film music can connect at a level that transcends the basic storyline of the narrative. As Burt (1994, p.7) stated, "[Film] music interacts with the intrinsic meaning of a sequence, as distinct from a surface-level meaning; it is addressed to what is implicit within the drama, not what is explicit". An interpretation of the musical content of a scene is therefore, dependent on the associations that audiences make. A majority of these associations are culturally and historically determined; that is, they have become ingrained through repeated use by a group or ethnicity. Filmgoers draw on these cultural and historical associations, often unknowingly. 'Experienced' cinemagoers, or those more knowledgeable about music, tend to make associations that are more conscious. This conditioned action indirectly influences their interpretation of the film's content. The most common association made with music is mood.

It was noticed as early as 1916 that music could considerably enhance the emptiness of the two dimensional space without disrupting the experience. In an article in *Moving Picture World* (23 April 1916 in Hoffman) it stated:

Music, while it may escape the attention of the [filmgoer], has the strange and subtle influence of creating moods, and that is why it is so important in the presentation of the moving picture.

According to Paul Rosen, in his comments on Eisler and Adorno's 1947 book *Composing for Films*, music in the 'silent' era was a matter of necessity; it was not only introduced to convey mood but it was also used as way of bridging the gap between the audience and what is on the screen. He stated:

They began by suggesting that the [filmgoers] of a purely silent cinema must have been subject to a certain unpleasantness and even shock, for the moving two-dimensional figures of humans seen on the screen are ghostly, in that they exist on the borderline between the living and non-living. The point is not that [filmgoers] of early cinema experienced a literal fear of ghosts, but that they experienced a subconscious shock because of their own socially imposed likeness to half-life effigies on screen [...] This helps explain why it was added to film. Its cultural role as magic and immediate subjective inwardness helped 'exorcize' the ghostliness of the images by supplying an indication of genuine, spontaneous life. This helped the [filmgoer] to overcome the shock and accept the literal immediacy of the images (Underwood 2004).

Throughout the silent era, the value of music was as a mood enhancer. In response to the fundamental nature of the medium, music took on a wider range of roles. Manvell and Huntley (1975, p.17) said music was used

to bolster the weakness of the drama. It is used to stimulate the imagination of the audience and to help the actor in what for him might be some dangerous moments [and during montage, it was used] in the regard to rhythm, emphasis, emotional climax and mood.

There was thus an early understanding of music's potential influence on audiences and it explains in part why music persisted after the transition to sound.

During the Studio era, film scores incorporated the styles of classical music and they also borrowed the convention of using music as a transition between scenes from nineteenth-century melodrama (Neumeyer & Buhler 2001, p.35). Film composing became highly structured. The goal was to produce an emotional response in the audience from the onset of the film. To achieve this, the convention was to start with a nondiegetic overture that was

lush and detailed. It was commonly heard over the title credits and was often designed to announce a successive collection of all the themes and gestures in the film. This overture often flowed into the first scene and then faded out (rarely on a cut). The idioms, melodies and rhythms heard by the audience in this selection established the 'genre', mood and setting of the film. Accordingly, it built in predictability, as those themes and gestures returned throughout the narrative, and in doing so reinforced the emotional content. Similar arrangements remained the norm until the late-1950s.

Over the years, filmmakers have drawn on several musical conventions that communicated affect. The preference has been towards tonal compositions, as Western tonal music is expressed through a progression of chords that determine the trajectory of the music. Confirming or denying the anticipated resolution of a musical cue helps build and exploit the audience's expectations. Brown (1994, p.3) highlighted how this evokes an emotional response, by stating:

Psychologically and aesthetically speaking, tonality sets a certain order, creates a sense of loss and anxiety in its various departures from that order and then reassures the listener periodically returning to that order.

This arrangement was often enhanced further by melodies that defy expectations, that is, they contain ambivalent tonal cues. Avoiding a predictable outcome heightens the audience's subconscious anticipation of the melody's trajectory. This unease grants the film a higher degree of suspense, which helps create continuity within the narrative. By manipulating musical cues in this way, the score helps draw the audience into the changing events of the film.

Western tonal music also dictates the perspective of time within the film world. Its rhythmic patterns mark the passage of real time, while a lack of

regularity (or its complete absence) can denote timelessness.⁶ In this way, music replicates the role of picture editing in that it subliminally communicates the pacing of a scene. When applied, this allows for a certain degree of predictability when moving from shot to shot. Lask (1997, p.281) stated, "from the perceived rhythm of a given sequence [the audience] unconsciously anticipates the length and to some extent the internal structure of succeeding shots". Once the pace of a given scene is established, as in a chase sequence, filmgoers become accustomed to it. This gives them the sensation that they are participating in the action. Because of this 'expected' timing of the music, the audience's emotions are heightened.

Film music also embraces many of the techniques from the classical tradition. One of the most widely used in film composing is the leitmotif, as mentioned previously in the discussion of Steiner's score for KING KONG. It is described as

[any] theme, or other coherent idea, clearly defined so as to retain its identity if modified on subsequent appearances, and whose purpose is to represent or symbolise a person, object, place, idea, state of mind, supernatural force or any other ingredient in a dramatic work (*The New Grove Dictionary of Musicians and Music* 1980).

Based on the Wagnerian approach,⁷ these recurring themes are frequently used to evoke an emotional connection to a particular character or to add a mythic quality to a situation. Their repeated occurrences in conjunction with representational elements in a film (i.e. images and speech) mean that these themes can carry their own emblematic meaning (Gorbman 1987, p.27). In this way, they are attempts to communicate directly to the audience something that is vital, and often hidden, in the narrative. The themes

⁶ Consider the example of Kubrick's 2001: A SPACE ODYSSEY (1968).

⁷ According to Constantini (2003?), "[Wagner] gave leitmotif a new status as a determining element of musical form. His flexible way of using musical themes enabled musicians to resolve a lot problems [...] Firstly, to find a structure for organising musical material. Secondly, to link characters and situations by means of music. And, finally, to avoid duplication (image/sound/musical onomatopoeia, having [noise] and music do the same things)".

announce the arrival and/or presence of a character in a scene (e.g. Morricone's score for *ONCE UPON A TIME IN THE WEST* [Leone, 1968]). They can indicate the psychological disposition of a character (e.g. Herrmann's score for *PSYCHO* [Hitchcock, 1960]), or represent an object that has been anthropomorphised. Themes also emphasise the heroic nature of certain characters by repeating themes at moments of bravery (e.g. Williams' score for *INDIANA JONES AND THE RAIDERS OF THE LOST ARK* [Spielberg, 1981]). Though principally used to unify the structure of a film through its similitude, Neumeyer and Buhler (2001, p.31) note that a variation in a leitmotif, or a change in timbre (e.g. flutes to brass), can significantly influence the interpretation of a character or event.

The classical style of composing also includes music as commentator, or narrator. Film music similarly highlights items exclusively for the audience and this gives further support to the storyline. It anchors narratives in a particular time and place by evoking the musical idioms of a historic period or those associated with a geographical region. It can help cue the audience to the position of an ambiguous location of a character or an object. Gorbman (1987, p.58) explained that this provides an interpretation of the image "as a means of warding off the displeasure of uncertain signification". Film music as commentary also externalises and 'articulates' the internal thoughts of a character. It can express an unspoken movement, or perhaps a moment of hesitation. Similarly, it can emphasise the importance of an object unacknowledged or unseen by the actors, as Herrmann did with the musical cue for the sledge at the end of *CITIZEN KANE*.

The success of such musical gestures is dependent on how well they enunciate the long-standing traditions of the given culture. Film music is built on associations that composers and concertgoers have developed throughout

the centuries. Thus, as Meyer (1957, p.267) stated, “particular music devices – melodic figures, harmonic progressions, or rhythmic relationships – become formulas which indicate a culturally codified mood or sentiment”. Musical structures have derived and developed their meaning through a mutual acceptance of these associations. In the West dissonant scores and minor keys have become synonymous with dark themes, or the more serious side of human emotions, for example, Rózsa’s music for DOUBLE INDEMNITY (Wilder 1943). On the other hand, consonance and major keys have come to represent lighter, happier events. These are found in abundance in filmed comedies. Many science fiction and horror films have made use of atonality, as its lack of expected sequences evokes alienation, incomprehension and absence (Neumeyer & Buhler 2001, p.25). Additionally, the mixing of tonal structures is often interpreted to signify ambivalence with a character’s actions or with the narrative structure.

By their nature, these cultural interpretations require interaction from the audience. Kassabian (1993) suggested that a moment of perception can be represented on two levels:

- (1) *History*, which refers to the series of musical events before, during and after the film
- (2) *Attention*, which relates to degree of awareness the music commands relative to other components.

The effectiveness of the added value from film music is highly dependent on the proficiency of filmgoers in both these areas. Within the continuum of history, Kassabian places quotations (i.e. whole or part previously released tracks), allusions (i.e. referential music) and leitmotif. These items will be

introduced over the course of the entire film. The deeper significance of their functions is reliant on the audience's knowledge of these items' existence within and outside the narrative. This awareness is also subject to the prominence given to music in a scene. Though many factors contribute to whether attention is given to music, Kassabian lists four as the main examples:

- (1) The main theme - music used for main titles or establishing shot.
- (2) No other competing factors - the suspension of dialogue and/or sound effects.
- (3) Scenes with much visual action such as chase scenes.
- (4) Background to dialogue (i.e. usually music is soft).

Consequently, cultural codes generalise the meaning of the music's tonal language. The audience's varying levels of competency may allow for additional degrees of interpretation within that cultural framework.

However, not all music inspires immediate associations. As mentioned previously, atonal music has been used selectively in films. The lack of familiar tonal structures finds its origins around the beginning of the twentieth century when composers like Debussy, Schoenberg and Webern began moving away from the conventional major-minor tonality of the late German Romantic period.⁸ Soon afterward, Futurist composers wrote music that utilised industrial machinery, which led to the development of *musique concrète* and electronic music. All of these movements challenged the

⁸ The Late German Romantic period is epitomised by film composers Steiner and Korngold.

accepted views of music and presented concert audiences with a new way of interpreting sound. It also introduced a new generation of film composers and musicians to another way of working. With the advent of magnetic recording, and later multi-track recording and the electronic synthesizer, it became easier for film composers to integrate these new forms of music in their scores. Early examples of these can be heard in FORBIDDEN PLANET (Wilcox 1965) and THE BIRDS (Hitchcock 1963). Neither film uses a traditional score; instead their title sequences and subsequent scenes are expressed through electronically created sounds. As such, these films, especially THE BIRDS, demonstrated the musicality of sound effects. In doing so, it encourages non-traditional composers to broaden the definition of music, as we will see later with the work of Carter Burwell. Furthermore, this merging of sound and music also blurs the accepted roles allocated to ambient effects and film scores. As a result, these forms of music contribute heavily to more integrated soundtracks.

Film Sound: NOISE and AMBIENT EFFECTS

“Hearing is believing”: the potential motto of all sound practitioners.

Following the transition from silent to sound film in America, effects or noises were seldom heard without a visual referent. This literal interpretation of the film world is described by Lastra (2000, p.191) as “an aesthetic dedicated to represented *hearing*, rather than represented *sound*”. The focus was to capture the recognisable properties of the depicted object to ensure intelligibility. While technology progressed, the use of atmospheric or acousmatic noise tended to be rare. The practice in Hollywood was to isolate sounds essential to the narrative and use them sparingly throughout the film. If the sounds interfered with the dialogue, they were rejected or quietened. In this way, as noted previously, American films gained narrative clarity, but lacked naturalism.

Stylistic uses of sound emerged with the advancements in technology and Hollywood’s decreasing financial power over the means of production. By the seventies sound editors and technicians had gained greater prominence and importance in the industry. However, subsequent corporate take-overs denied a radical re-evaluation of the contributions of noise and effects. Nevertheless, sound professionals continued to forge ahead. Following the introduction of Dolby technologies, there was increase in the creative applications of sound. In addition to the possibility of true silence, the new machinery provided a wider frequency range, which infused films with a greater sense of cinematic space and time. Stereophonic sound also provided for the separation of sounds, so layered soundtracks could be developed and editors could have control of the exact positioning of a noise or an effect.

With these technological advancements, recognition of the metaphoric functions of noise and ambience increased. As with film music, these items could be granted meaning beyond the aural equivalent of the onscreen images. Sound that had no immediate visual referent could be used to have an effect on the emotional tone of a scene, or indeed an entire film. For example, a continuous background noise (e.g. weather, birdsong, traffic) darkens or lightens the mood in the same way a musical underscore does. The sudden disruption or break in this flow of noise could heighten tension. A more modern approach is to use this technique subtly, thereby directing emotion at a more subconscious level. This approach reflects the brain's natural tendency to filter out repetitive monotonous sounds, thus rendering them less noticeable than other sounds.

Ambience and noise also assist in maintaining the continuity of the narrative. Initially transitions between scenes were achieved through the fading out and the fading in of these ingredients. Cross-fades (i.e. transition sounds that overlap) were soon adopted as another technique. These aural ingredients could also be used to direct attention to a subsequent scene. As with music, the trajectory of effects builds the expectations of sounds that are begun in one scene but will complete in the next. Manipulation of these factors can guide the attention given to a particular item within the film (e.g. an echoing gunshot), which not only underlines its significance but also reinforces the 'forward' motion of the narrative.

Certain representational noises can conjure up a time period and a specific setting. A time frame is made obvious when the film contains technology from an earlier era (e.g. typewriters, Model-T cars, gaslights) or when the film includes mechanisms of the future (e.g. spaceships, laser guns, robots). Beneath the surface of these noises, it is possible to introduce a subtext.

Darkening the tones of certain effects can enforce the perception of evil or an enemy. Mixing the human vocal qualities into electronic noises can give a robot an emotional appeal (e.g. R2D2 from STAR WARS). A location can be conjured up by variety of noises that need no visual referent. The lash of a wave and splashes of water are all that is necessary to signify the open sea. Roaring lions, howling monkeys and squawking birds have typically denoted jungles. Clanking chains, creaking doors and ghoulish moans have indicated haunted houses. Traffic noise, sirens and indiscriminate voices have often indicated urban settings. Intelligent layering of these ingredients can imply menace (e.g. the dense cityscape noise in SEVEN [Fincher 1993]) or heighten the representation of a futuristic environment (e.g. BLADE RUNNER [Scott 1982]). The ingredients not only represent a plausible, tangible environment, but their tonal qualities also serve as a metaphor for the narrative.

Space and distance can be signified through many different aural expressions. This has been primarily demonstrated through degrees of reflective sound and changes in volume. As noted in CITIZEN KANE, Welles used reverberation and echo to communicate large, enclosed spaces. These effects give the impression that the sounds are taking a long time to return from their source (e.g. a wall) and, therefore, they suggest a much bigger location. By decreasing the volume of these sounds, a greater distance is evoked, and the audience is made to believe that the cinematic space is even larger. Contrasts in volume heighten the impression of depth; they communicate distance. The brain interprets a louder sound to be closer than a quieter sound. This occurs when the high frequencies of a specific noise are accentuated, relative to other aural elements. Sudden changes in perspective can draw attention to an object within the narrative. This often marks transitions between scenes, or it highlights the importance of one sound event over another within the same scene.

The precise placement of noise and effects on the soundtrack can direct attention. The direction of a sound is perceived when lower frequencies come to one side of the head and there is a slight delay before they reach the other side of the head (Sonnenschein 2001, p.85). This temporal delay also occurs when shorter sound waves (higher frequencies) are hindered by the head itself, resulting in a different timbre for each ear. With the advent of multi-channel systems, audiences were introduced to more precise directionality. Sound professionals can now imitate, or manipulate, this natural perception of direction by spreading the sounds over the separate channels. By positioning aural ingredients in particular locations, they are able to guide the audience's perception of the objects within the film. As this replicates natural perception, it has made audience's ability to localise sounds much easier. They no longer needed to 'force' themselves to accept that all the noises and effects heard during the film belonged to the film world. Consequently, the cinematic space gains greater verisimilitude, increasing the plausibility of the narrative.

Effects and noise can also communicate beyond the picture frame. Chion suggests that there are two forms of acousmatic sound: *active* and *passive*.⁹ The former is indicated by aural ingredients that inspire the audience to seek out its source. An active acousmatic sound always precedes its visual referent. It creates a curiosity that drives the film forward and builds on the audience's anticipation. In addition to the earlier examples of Godard, countless film narratives that 'delay' revealing the identity of a character have made use of this sound technique. In contrast, a *passive acousmatic sound* is sound which does not motivate the audience to find its source. It permeates a sequence and brings continuity to the changes in shots.

⁹ The material in this paragraph comes from *Audio-vision: Sound on Screen* 1994, p.85-86.

Examples would include lush atmospheric noises (crickets) and intermittent effects (car horns hooting). Chion says this anchors the film in a particular setting, which allows the picture editor more freedom to move around the cinematic space without disorientating the audience.

Acousmatic sounds can also be totally divorced from the image. As noted previously, one of Bresson's filmmaking techniques was based on avoiding the duplication of sound and picture. Quite often his films featured diegetic sounds that could be heard offscreen but with no visual referent. The absence of a visible source focussed the audiences' attention and forced them to imagine it. This technique can also be used to create an *acousmêtre*: an acoustic character or noise that exists without being seen for a large portion of the film, or the entire film. Chion (1994, p.129) describes *acousmêtres* as "many of the mysterious and talkative characters hidden behind curtains, in rooms or hideouts"; examples include, the mother in *PSYCHO* (Hitchcock 1960), the fake wizard in the *WIZARD OF OZ* (Fleming 1939) and Hal 9000 in *2001: A SPACE ODYSSEY* (Kubrick 1968). They can also describe the ghostly presence in *THE HAUNTING* (Wise 1963). When these sounds are de-acousmatised (i.e. the film divulges the sound source), the realised image loses its mysterious qualities and the 'voice' becomes ordinary, thus, by stretching beyond the borders of the screen, they are given their own identity.

Lastly, ambient effects and noise can also infuse the visuals with a heightened sense of 'realism'. A great number of films present worlds that are far removed from everyday experience. Though every film is a 'lie', these narratives often use exaggerated or ambiguous sounds to bring credibility to their improbable storylines. The resulting symbiosis encourages audiences to ignore the forgery and suspend their disbelief, thus accepting the film's

'authenticity'. In the words of Umberto Eco (1998, p.43), they admit the 'total fake' in order to enjoy it as totally real. It becomes hyperreal: a world more real than real. By overstating literal noises (e.g. footsteps, gunshots, tyre screeches) within an unlikely world, it complements the false reality. It is still believable because of the cohesion between sound and image. Hyperreal sound can also make the 'normal' sound 'unnatural'. For example, having sound float from one scene to the next without a tangible referent exaggerates the cinematic space. The ambiguity it produces gives the film an ethereal quality. Examples of this are quite common in the latter films of Andrei Tarkovsky, who used the abstract nature of sound to communicate his spiritual/philosophical views on a more intuitive level.¹⁰

¹⁰ For more information on Tarkovsky's use of sound, please read *And Then There was Sound: The Films of Andrei Tarkovsky* by Andrea Truppin.

Film Sound: THE VOICE

When you have dialogue in a film it is being conveyed by sound, but what is being conveyed is code, and in order to understand what film-makers are talking about you have to understand the language. So then the shell which is put in your hands is sound, and you, through your ability to understand that language, crack open that shell and consume what is inside which is the meaning of the words (Murch in Boorman and Donohue 1996 p. 152).

The introduction of audible dialogue marked the transition from silent to sound films, and has been in prominent use ever since. However, the human voice has rarely been discussed in terms of its function within the narrative and it has been greatly neglected as a stylistic device. One could argue that dialogue is within the domain of the screenwriter, but its effect transcends the written page. The dialogue itself is often transformed through performance, sound editing and rewriting. Spoken words also serve a purpose beyond that of the actor who delivers them. More often they are conduits of something beyond mere pronunciation and grammar. As such, film voices communicate a variety of messages fundamental to the storytelling process.

Along with music and effects, film dialogue completes the illusion perpetrated by the soundtrack. Spoken lines in a film differ from everyday talk because they are infused with meaning that fills a dramatic purpose (e.g. character revelation, plot development, etc). They are meant to appear believable within the given narrative context in order to convince the audience of the plausibility of the film world. In doing so, they create a form of interaction between the audience and the film. As Sarah Kozloff (2000, p.15-16) stated:

Film dialogue has been purposely designed for the [filmgoer] to overhear, so that [they] can draw the best hypotheses, but films disguise the extent to which the words are truly meant for the off-screen listener. Part of the film-going suspension of disbelief is to collaborate in this fiction.

Dialogue therefore is principally created for the audience's comprehension. Through its 'disguise', they are provided with guidance: it informs, it discloses and it even conceals information when necessary. Consequently, from this basic description, it provides filmmakers the most accessible means of communicating to an audience.

Dialogue also differs from everyday talk in the way it is structured. The length, or quantity of words, allocated to an actor helps determine many factors. Short turns¹¹ spoken quickly are typical of comic exchanges. Note the examples of Abbot and Costello's 'Who's on First' routine in *THE NAUGHTY NINETIES* (1945), or any of the verbal skits from a Marx Brothers' film or Howard Hawks' *HIS GIRL FRIDAY* (1940). However, it can be found in all film forms. Often fast turns are used as a form of aural counterpoint when contrasted with slower-speaking characters. This also serves as another means of presenting a character's personality. Numerous scriptwriting 'experts' have suggested that lines should be kept short,¹² yet longer turns have always had a role in storytelling. Spoken slowly they not only reduce the pace, they also "allow for the explanation of a complicated argument [or plan,] or the description of a past event" (Kozloff 2000, p.66). Long turns can also generate suspense. When employed for an Agatha Christie-style mystery, they build into a final dénouement that has a tremendous impact on the entire narrative.

The human voice can also be used to help identify the film's sense of place. In many of the early films, a character verbally identified a location and almost immediately the picture cuts to that exact setting. This practice has

¹¹ A 'turn' denotes the give-and-take involved in ordinary conversation. Each individual in a conversation is offered the 'turn' to speak, regardless if they utter a word. These 'turns' form the structure of a conversation.

¹² Examples include Stuart Rumens' *Carte Blanche: Button Up That Lip*, *Movie-Masker* (May 1985) and Hank Poster's *The Film Writer: Solving the Problem of Dialogue*, *Today's Film Maker* 3.3 (1974) (Kozloff 2000, p.274)

now become a cliché and today is often replaced by captions and other direct references (e.g. street signs, iconographic images [such as The Eiffel Tower indicating Paris] or mountain ranges). Nonetheless, the verbal enunciation of a place still occurs in films that are attempting to evoke an earlier period in film history or as a comic jest. Similarly, flashbacks or memories are often primed with a verbal reference to the time and place in which they will occur. Kozloff (2000, p.36) cites the example of *THE FUGITIVE* (Davis 1993) where a television reporter begins to recount the chronology of the evening's events that led to murder: after a few sentences the picture cuts to the large party he was describing. As most films substitute one location for another, verbally evoking a sense of place for the audience also helps them to accept the setting as presented.

The progression of the story is frequently communicated through the dialogue. The use of expositional dialogue can make the audience explicitly aware of information vital to the narrative. These exchanges may involve the characters, but they are solely designed to inform or explain. Expositional dialogue often includes direct and detailed descriptions of people, places and events within a short amount of conversational turns. These lines are usually preparation for the next event in the storyline, or they may serve as the explanation of the premise for the entire film. The conversation between the United States military and the crew of an oilrig in James Cameron's *THE ABYSS* (1989) typifies this kind of dialogue. An edited transcript reads:

DEMARCO: At 09:22 local time this morning, an American nuclear submarine, the USS Montana, with 156 men aboard, went down 22 miles from here. There has been no contact with the sub since then. The cause of the incident is not known. Your company has authorized the Navy's use of this facility for a rescue operation. The code name is Operation Salvor.

ONE NIGHT: You want us to search for the sub?

DEMARCO: No. We know where it is. But she's in 2000 feet of water and we can't reach her. We need divers to enter the sub and search for survivors, if any.

BUD: Don't you guys have your own stuff for this type of thing?

DEMARCO: By the time we get our rescue submersible here the storm front will be right on us. But you can get your rig in under the storm and be on-site in fifteen hours. That makes you our best option right now.

HIPPY: Why should we risk our butts on a job like this?

KIRKHILL: I have been authorized to offer you all special-duty bonuses equivalent to three times normal dive pay.

CATFISH: Hell, for triple time I'd crawl through razor blades and shower off with lime juice.

FINLER: I'm here to tell ya', you could set me on fire and call me names.

BUD: Look, I don't know what kind of a deal you guys worked out with the Company, but my people are not qualified for this... they're oil workers

DEMARCO: A four-man SEAL team will transfer down to you to supervise the operation.

BUD: You can send down whoever you like, but I'm the toolpusher on this rig, and when it comes to the safety of these people, there's me... then there's God. Understand? If things get dicey, I'm pulling the plug.

KIRKHILL: I think we're all on the same wavelength, Brigman. Now let's get the wellhead uncoupled, shall we?¹³

Everything is said to other characters, but it is clear that the information is given for the audience's benefit in that it explains the mission, helps reveal the personality of the characters and sets up the narrative for future conflict. Other expositional dialogue can involve the communicating of a character's 'back-story' and the verbal definition of events leading to a deadline. Examples of the latter are usually found in films that depict life-or-death situations, such as the FLIGHT OF THE PHEONIX (Aldrich 1965) with its constant reference to decreasing food and water supplies, and the depleting number of operational starter engine cartridges. Instances of this type of dialogue gain even greater significance when the threat is invisible, as in the cases of gas and radiation leaks, and self-destruction countdowns. These verbal warnings help build tension into the mounting problems without the filmmakers having to make regular visual allusions to the situation. Furthermore, ambiguous verbal deadlines can help heighten the suspense of a single scene, as in the "Is it safe?" torture sequence from MARATHON MAN

¹³ This script and subsequent scripts in this part of the thesis have been taken from <http://www.simplyscripts.com/movie.html>

(Schlesinger 1976).

Messages given through film dialogue can either be presented directly or indirectly, depending on the needs of the narrative. Often scenes begin in the middle of a conversation, putting the filmgoer momentarily at a disadvantage. The audience, therefore, is put in a position where they need to decipher the context while listening to the remainder of the sequence. Characters can withhold information, or give false information, or draw wrong conclusions. All of which draws the audience into the narrative, making them an active participant in the film-going experience. However, it is more common for the audience to be put in a superior position, that is, where they know more than the characters that are speaking. As a third-person omniscience witness to every scene and all verbal interactions in a film, the audience tends to have an advantage over any individual character.¹⁴

Misunderstandings and manipulation are mainstays of numerous film plots, especially when words are misheard or misinterpreted. It is regularly exploited in comic situations, where characters are pursuing two different chains of thought, or where one suffers from a hearing deficiency. Consider this example from AIRPLANE! (Abrahams, Zucker and Zucker 1980) where crewmembers Roger Murdock, Clarence Oever and Victor Basta are trying to get permission for departure from the control tower:

TOWER: Flight 2-0-9er, you're cleared for take off.
OEVER: Roger!
MURDOCK: Huh?
TOWER: L.A. departure frequency 1-2-3 point 9er.
OEVER: Roger!
MURDOCK: Huh? Re-quest Vector, over!
OEVER: What?
TOWER: 2-0-9er clear for vector 2-3-4.
MURDOCK: We have clearance, Clarence.
OEVER: Roger, Roger. What's our Vector, Victor?
TOWER: Tower's radio clearance, over!

¹⁴ An example of third-person omniscience is discussed in the analysis of BLOOD SIMPLE in Part 4.

OEVER: That's Clarence Oever! Oever.
TOWER: Roger.
MURDOCK: Huh?
TOWER: Roger, over.
MURDOCK: Huh?
OEVER: Huh?

The vocabulary of mainstream American films tends to be simple. The rationale is similar to that which drives all film creation in the United States: economics. The dialogue must be accessible to the largest amount of people: to exclude anyone would limit ticket sales. Former director now professor Edward Dmytryk (1985, p.31) explained, "Most scripts do well with a pool of no more than a few thousand words, the majority of them mono-syllabic and of Anglo-Saxon derivation". It also aids in the overseas distribution of mainstream films to non-English-speaking countries because it reduces the chances for mistranslations. Furthermore, Americans are inclined to distrust language that is couched in intellectual terminology. Most find such talk pretentious or condescending, and as such, it diminishes the entertainment value of the film. Therefore, if intellectual talk is employed, it is most often disguised in humour or given it to villains to enhance the audience's mistrust of them. This also helps explain why more complex language structures are often heard in independent features.

The voice in film can also be heard separately from its source, or grafted onto another source. When disembodied, these voices can become the aforementioned 'acousmêtre', where the invisibility gives them power beyond the ordinary character. Chion (1982, p.24) claimed that these entities "haunt the borderlands that are neither the interior of the filmic stage nor the proscenium", which endows them with ubiquitous and panoptic powers. The acousmêtre voice 'fills' the filmic space, creating a sense of menace (or uncertainty), and it is not until the voice receives a body that this threat is

diminished. Other acousmatic voices, like the voices at the other end of a telephone, challenge the audience to match the sound with its source. When it is entirely unknown to them, Chion (1982, p.63) again claimed it takes on the role of the acousmètre, which alluding to films where a character is intimidated by a stranger on the phone.¹⁵ The disembodied voice of an actor is also often affixed to a character within the visual field. In addition to the long tradition of dubbing foreign films into English, this technique is commonly used where animals or babies are granted human/adult voices. The premise of these films is highly dependent on the audience accepting this voice-image combination. This technique is also applicable to those instances where a character is performed by one actor and voiced by another (e.g. Darth Vader [voiced by James Earl Jones] and Regan (Blair) [voiced by Ron Faber when possessed] in *THE EXORCIST* [Friedkin 1974]).

The most prominent acousmatic use of the human voice is that of narrator or voice-over. The former continues the role of storyteller, which originates with the oral tradition that was perpetuated through novels and plays. Radio's adoption of this convention drew listeners back to the power of the voice as storyteller. Films, especially those made in the early part of cinematic history, welcomed the narrating voice as guide to the film's events. By evoking such a long tradition, it helped audiences anticipate the structure of the story: it gave them a sense that there was a beginning, middle and end. Narrations were largely given by one of the main characters, granting the audience a deeper insight into what was made accessible to them on screen. First person narrations were the most common because they tended to give greater veracity to the content. They not only appeared to be a first-hand account, but they also gave the filmgoers the character's personal reaction to events, creating intimacy. A prime example can be found in *SUNSET BOULEVARD*

¹⁵ Consider *WHEN A STRANGER CALLS* (Walton 1979), *LIBERTY STANDS STILL* (Skogland 2002), *PHONE BOOTH* (Schumacher 2002) and the beginning sequence of *SCREAM* (Craven 1996).

(Wilder 1950), where the insights provided by the main character's thoughts help the audience understand the circumstances that had led to his death. Voice-overs may take the form of narration, but they are usually employed to make a character's thoughts known to the audience. They may comment on events, or express emotion about specific point in the narrative, but they relate to character revelation rather than story development. Furthermore, the voice-over is usually heard while the character is on screen. Often he/she is shown generating and reacting to these thoughts through facial gestures or body language.

Above all, dialogue brings an added dimension of reality to the characters of a film. On the most mundane level, synchronous voice-images allow the audience to identify a character through their voice. Once established, audiences are able to recognise this character regardless if they are visually within the shot.¹⁶ Dialogue can also disclose much about a character's personality and background. For example, it can express their class, their level of education, their self-confidence and their sanity. Often characters reveal things about themselves through their own dialogue or via the dialogue of another character. An illustration of the former is in the scene in *SHADOW OF A DOUBT* (Hitchcock 1943), when Uncle Charlie (Cotton) expresses his utter disdain for widows. Through the dialogue and a close-up camera shot, the audience is brought "right into the mind of a deranged man" which allows them an insight into his motive for murdering them (Kozloff 2000, p.45). The deepest understanding of a character comes through external and internal monologues. Here, audiences are made privy to a character's decision-making processes, their sense of guilt or regret and often their fears. It also puts the audience in the unique position of being aware of something that is unavailable to the other characters

¹⁶ This can also work in reverse, where acousmatic voices are finally matched with a body to reveal the sinister mastermind or the sadistic murderer.

Finally, characters can also use the actual voice qualities to communicate meaning. Through prosodic traits, such as intonation and stress, actors generate a rhythm that audiences can learn to recognise. The rise and fall of these patterns also emphasises select words in their speech, so the most important information may be gleaned. In addition to basic emotions like anger and happiness, audiences can also be made aware of the character's level of tension through their vocalisations; for example, the depth of their affections or the amount of pain they are suffering. Accents and dialects can help define whether they are an émigré, a visitor or a native resident of the film's setting. Furthermore, actors can add a vocal feature (e.g. coarseness, hollowness, nasality) to their natural speaking voice to enhance their character's identity. Marlon Brando's performance in *THE GODFATHER* (Coppola 1972) is a well-known example. The vocal affectation he created for Don Corleone is now one of the most evocative elements of that film.

Appendix B

The Historical Development of Sound Technology and its Impact on Filmmaking Practices and Styles

Early Developments in the History of Sound Recording and Reproduction

The Hollywood tradition of giving more prominence to the image has been attributed to the fact that historically picture came before sound.¹ However, this is not entirely accurate. It would appear that it was never the intention of the film industry to make 'truly' silent films. According to Kellogg (1967, p.174), Thomas Edison stated:

In the year 1887, the idea occurred to me that it would be possible to devise an instrument which should do for the eye what the phonograph does for the ear, and that by a combination of the two all motion and sound could be recorded and reproduced simultaneously.

The thought of such a possibility led a disparate group of international engineers and technicians from a variety of industries to begin researching and developing this product. Many innovations were brought forward during the latter 1800s and early 1900s, but it was not until 1907 when Lee De Forest patented his 'Audion' Tube, which paved the way for the development of practical amplification techniques, that any of them could be considered for commercial use.

In the interim, sound in one form or another was presented as part of the cinematic experience. In what many believe is a legacy from the stage and

¹ In truth, the potential to reproduce sound mechanically actually arrived much earlier than the first known mechanised moving picture. According to Sponable (1947, p.276), the earliest known method of recording sound was patented by Leon Scott in France in 1857. Its design was quite similar to Edison's phonograph, which was developed twenty years later, and also predated the birth of moving images.

Vaudeville (Music Hall in the UK), live music accompanied most performances. It would consist of anything from a lone piano or organ to a full orchestra. The music was normally heard throughout the entirety of the presentation not only to mask the noise of the film stock and hissy loudspeakers, but also to heighten the action or emotional content expressed onscreen. Its presence became so common that sheet music was developed to set 'standards' for specific film moments (e.g. the chase), creating enduring associations for the audience. Assistants in the wings would often employ a series of live sound effects to synchronise with particular events that had aural significance (e.g. thunder). The human voice was also used in a variety of ways. In Japan, narrators accompanied films to give them emotional depth or greater detail (Freiberg 1987, p.76-80). Elsewhere, actors, on occasion, read out lines from behind the screen and there was often a 'live' introduction and description given before the presentation. Most significantly, in 1903 Leon Gaumont made use of one of Emile Berliner's shellac disc gramophones² to reproduce speech that accompanied a film (John Aldred 1996?). Despite this innovation, it was limited by the auditorium's nonporous screen, the lack of powerful amplification and audio clarity.

Technical research in sound focused on human speech and this led to the invention of a series of 'talking machines'. From 1908 to 1913 the public were invited to experience a mechanised version of what was becoming a common film accompaniment: actors speaking in synchronisation with images. Edison's 'Cameraphone' was one of the first of these systems and it was designed so that an image could be roughly synchronised with a phonographic record. According to Altman (1995, p.3) it was "an avowed

² In 1893 this player, which initially used rubber discs, was successfully marketed to the public in two forms: an electric-powered version and a hand-powered version. Within a year, he had sold one thousand machines and over twenty-five thousand records (Schoenherr 1999-2001a).

attempt to 'can' vaudeville performances - image and sound - for the inexpensive distribution to the hinterlands [...] With one hundred locations by the end of 1908". However, as the apparatus never utilised close ups, exact synchronisation was not a consideration. The commercial viability of this device inspired a number of imitations world-wide, which included: Paramount's *Synchroscope* (Germany),³ Gaumont's *Chronophone* (France) and Hepworth's *Cine-phone* (Britain). All of these aimed to provide reproduction of the human voice using a sound-on-disc system. Most achieved a degree of success, but it was extremely short-lived. Undeterred, Edison introduced the 'Kinetophone' in 1913. This apparatus had a sixteen-week run at the B.F. Keith theatre in New York. It was designed to create the synchronisation of picture and sound by using a belt connection between a phonograph on the stage and a projector in the picture booth (Sponable 1947, p.280). It is probable that the belt system of the 'Kinetophone' served as a prototype for future sound-on-disc systems.

Sound technology flourished after the First World War, as research had increased to aid the war effort. Most notably was the work of Theodore Case. According to his colleague, Earl Sponable (1947, p.283), Case realised:

If sound pictures were to serve as a medium of entertainment, it would be necessary to perfect the system to such an extent that the illusion created in reproduced sound and pictures be good enough to make one forget the mechanics of the system and think only of the portrayed event.

Case and Sponable's initial research benefited significantly from the advent of radio and the technological advancements made predominately by Bell Telephone Laboratories during World War One.⁴ After purchasing an 'Audion'

³ Having established itself as one of the first American film Hollywood studios in Europe, Paramount also encouraged the development of new technology.

⁴ In 1915 Harold Arnold began a holistic program at Bell Telephone Laboratories to improve the overall quality of sound recording. His team developed the vacuum tube amplifier, which was based on de Forest's 'Audion' tube design. A year later they invented the condenser microphone, but it would be ten years before it could be used for any practical purposes. In 1918 they patented the balanced armature loudspeaker, which was originally developed for

amplifier from De Forest in 1916, Case and Sponable developed the Thalofide photoelectric cell, which was used by the United States Navy to transmit secret messages by infrared light during the War (Schoenherr 1999-2001a).⁵ From 1922 to 1925 Case shared equipment and knowledge with De Forest, whose similar discoveries had led him to purchase Case's Thalofide cell in 1920. During that time, Case perfected the Helio light tube (later to be called the Aeo light), a recording mechanism that he and Sponable used as a modification on the Bell and Howell camera (Sponable 1947, p.288). This sound-on-film system had strikingly good results. In response, De Forest made a legal claim on Case's discoveries. This, and De Forest's lack of salesmanship for his own products, led to the break in their partnership. Once on his own, Case made attempts to secure licensing of another means of amplification. However, the few Hollywood studios that already possessed a form of amplification refused him, as they were also developing their own sound film systems. It was not until the summer of 1926 that he found an interested party, William Fox of the Fox Film Corporation.

Western Electric, the manufacturing branch of the Bell Telephone Laboratories, had the foresight to focus on perfecting both the sound-on-film system and the sound-on-disc system at the same time. Following Bell Telephone Laboratories' improvements during the First World War (see footnote 4), it was J.P. Maxfield who focused their attention on wax recording and the phonograph. By 1920 the commercial viability of these products had been well established, thus development focused mainly on a means of synchronisation and, once that was achieved, little time was lost trying to demonstrate the marketability of sound-on-disc films. In 1924 Western

public addresses. At this time Bell Telephone Laboratories also utilised Professor H.O. Raskine's research on a mechanical light valve, which allowed them to have greater control of the light source. All of these advancements led to the advent of the electrical recording technology used by both sound-on-disc system and the latter, sound-on-film system.

⁵ Case had actually begun work on sound recording in 1911 as a student at Yale University. His experiments involved measuring the sound vibrations produced in the changes in a manometric (gas jet) flame. (Sponable 1947, p.283)

Electric exhibited a short film called HAWTHORNE to two hundred and fifty of Bell Systems officials, who, despite being disappointed by many previous failures, responded positively and ordered a series of test films to be made so they could be circulated around the country (Schoenherr 2001). It was during one of those tours in 1925 that Sam Warner of Warner Brothers studios witnessed a presentation of Western Electric's sound-on-disc system. Despite the tremendous interest in this system, Western Electric also forged ahead in developing equipment for their sound-on-film system. Engineers focused mainly on perfecting an interlocking drive system for camera and recorder, a sprocket feed system, and a 'soundhead' that could be mounted under the picture projector (Kellogg 1967, p.181-182). It would appear that this strategy of simultaneously developing both systems enabled Western Electric to become the one of the most powerful companies in early sound film production.⁶

⁶ A strategy enhanced and strengthened by their acquisition in 1912 of the rights on De Forest's 'Audion' tube (Chanan 1995, p.71)

The Origins of Competition

It was in the early 1920s that Hollywood film studios were facing competition from a new rival: radio. The public's fascination with this new technology began at the grass roots level when American World War One soldiers came home bearing bits of electrical kit, which they would reconstruct at home (Douglas 1987, p.3). These 'crystal sets' not only allowed individuals to access far-away voices (albeit an extremely limited amount), but it also allowed them to participate in a wider technical revolution. By 1923 millions of listeners had heard United States Presidents Wilson, Harding and Coolidge address the nation on the radio (Douglas 1999, p.102). Soon afterward, celebrities, educators and other prominent members of society could all be heard on air. The experience of hearing people's voices for the first time fascinated listeners, and what is more, listeners began to ascribe various personality traits to speakers based on their voice (ibid., p.102). As a result of this technology, the perception of sound had begun to play a vital role in American society. Capitalising on this popularity, radio stations rapidly expanded their broadcasting schedules to include a variety of programs. These included news items of special attention, sports broadcasting, educational instruction and, most significantly, entertainment. The film industry watched this progress as radio's power and commercial viability grew continually stronger.

It was at this time, Warner Brothers bought half interest in the rights to the aforementioned sound-on-disc system. They named it Vitaphone after their Hollywood studio (Vitagraph) and together with Western Electric, began showing sound films to the public. Despite the popularity of the human voice on radio, Warner Brothers' initial purpose of exhibiting sound films was to add canned music to their features. The rationale for this can be summed up in

the infamous question posed by Harry Warner in 1926: "Who the *hell* wants to hear actors talk?" (Warner & Jennings 1964, p.168). The Warners knew that tremendous savings could be achieved by eliminating the cost of live music accompaniment in all of their cinemas. However, before they were to begin a campaign of feature length sound films with this new system, they cautiously introduced it to the public via a series of shorts. Production on their first short film, THE SONG OF THE VOLGA BOATMAN, began in May 1926. They used either twelve or sixteen-inch discs on a turntable geared to a projector at 33 1/3 rpm⁷ for nine to ten minutes (one side only) and had a maximum frequency response of 4300 Hz (Schoenherr 2001a). The production style Warner Brothers initiated with this film soon became the adopted method of all sound-on-disc productions. Eyman (1997, p.87) described the mode as:

The performers would do their act as if they were on stage, in a presentation style; the booths the performers faced usually held three cameras - long shot, medium shot, close-up - and each act ran eight to ten minutes, that is, enough to fill up a Vitaphone disc.

The success of these initial shorts led Warner Brothers to produce a series of performance pieces featuring celebrated singers and musicians.⁸

While creating these shorts, Warner Brothers also went into production of a feature length film that would have a nondiegetic score, DON JUAN. Released on 6 August 1926 it became the first commercially successful sound film. To achieve this, they recorded one to two ten-minute reels a day using a multiple microphone set up in "apparently random order, perhaps to accommodate the editing process" (ibid., p.91). The film premiered with a series of nine concurrently shot shorts; all of which were exhibited before the feature. The loudspeakers were placed in the orchestra pit, facing upwards

⁷ Records at that time were normally played at 78 rpm. Western Electric determined that this slower speed was ideal for reducing background noise and maintaining synchronisation (Kellogg 1967, p.180).

⁸ One of which featured Al Jolson.

(perhaps in keeping with the source they were simulating), and a single speaker behind the screen to reproduce individual speeches. The entire evening's entertainment was introduced on screen by Will Hays,⁹ who amazed the audience by simply clearing his throat before he spoke (ibid., p.91). In view of previous public attempts to demonstrate sound films, faults and breakdowns were expected, but none came. In addition to the novelty of sound, the film featured John Barrymore and Mary Astor, two of the most popular stage stars of the silent era, which undoubtedly bolstered its credibility. DON JUAN ran for nine months at the Warner theatre in New York¹⁰ before it was sent to Los Angeles and then elsewhere. The critical and popular response was tremendous, catapulting Warner Brothers into a much more competitive position among the Hollywood studios.

The only existing competitor in terms of sound film production was Fox Films, another middle-size company hoping to vie with the larger ones. Having established the Fox-Case Corporation on 23 July 1926, William Fox and Theodore Case began pressing forward to develop their 'Movietone' sound-on-film system. It was at that stage that they employed Sponable to build two Hollywood studios exclusively dedicated to sound film production. The studios were designed "to exclude all outside noise and with the best acoustic treatment known at the time" (Sponable 1947, p.407-408). After acquiring the right to use the amplification patents and apparatus from Western Electric, they went into production of their first feature film on 21 January 1927, WHAT PRICE GLORY; a film that marked a series of films that Fox considered highly artistic. Fox Films had released it as a silent film the previous November, but this version, like Warner Brothers' DON JUAN, was

⁹ Hays was a politician from former United States' president Warren Harding's administration. He was also the first president of the Academy of Motion Picture Arts and Sciences. He would later become infamous for instituting the Production Code: a strict set of rules that determined the moral tone of filmed narratives in America until the complete dissolution of the Studio System in the mid-1960s.

¹⁰ During which time over 600,000 spectators attended the film.

accompanied by a nondiegetic score and was preceded by a performance piece. In the cinema, a perforated screen was introduced because of its greater transparency to sound, which allowed the loudspeakers behind the screen to be heard more distinctly. Moreover, these loudspeakers, developed by Wente and Thuras of Bell Telephone Laboratories, included a moving coil mechanism that drove the diaphragm and a magnetic system with a battery energised field coil: innovations that enabled sound to be reproduced at much higher levels and with improved quality.¹¹ According to Sponable (*ibid.*, p.408) when this film premiered "the sound features were not advertised [...] No stampede resulted, but neither was there an unfavourable audience reaction".

Thus true competition began, not solely between two small filmmaking companies, but also, more significantly, between two filmmaking processes. Both sound-on-film and sound-on-disc were vying for the position that would establish it as the standard for all future filmmaking. While Fox and Warner Brothers moved rapidly into the production of their first sound features, the international film world stood back and watched; many assuming that sound was just a fad and would soon pass. Most considered the huge financial investment would not be worth the risk.¹² Nevertheless, as a precaution, on 17 February 1927 several American studios (i.e. MGM, Paramount, Universal, First National and Producers Distribution Corporation) signed an agreement to take a year's study of both sound film systems before completely ruling them out (Eyman 1997, p.115). Events of the latter half of 1927 were to prove that this cautious gesture would give their competitors a tremendous advantage.

¹¹ I am indebted to the 1977 AMPAS Newsletter Number 21 for this information.

¹² Most producers had a backlog of silent films that had cost millions, stars on long-term contracts who little drama technique except pantomime and foreign markets that were well established; additionally, they would have to convert their present stages to sound stages and exhibitors would have to have their cinemas rewired for sound (Kellogg 1967, p.186).

Sound Film and the part-Talkie

On 21 May 1927 American cinemagoers were privileged to experience an amazing news event. Fox's Movietone sound cameras captured Charles Lindbergh departing on his historic trans-Atlantic flight to Paris. Watching and hearing this moment must have had an awesome impact on their senses. Eymann (1997, p.114) explained that the ratchety buzz of his single-engine plane "thrilled audiences and made the muddy half-tone newspaper seem passé [...] Sound made things more immediate, made it seem as if it was happening *now*". Releasing this footage granted a new niche for Movietone newsreels. Furthermore, any exhibitor using licensed Western Electric equipment was also permitted to use this newsreel (and subsequent newsreels) before their regular features, including Vitaphone films.

Following on this success, Fox Films released their next full-length feature, SEVENTH HEAVEN, with a synchronised score. It too was tremendously successful, playing for twenty-two weeks in Los Angeles and nineteen in New York (ibid., p.113). Crucial to this film were the shorts that preceded it. Once again they featured roving news reports, however, they also included eminent personalities, such as George Bernard Shaw and Arthur Conan Doyle, talking on film. Both drew the attention of the intelligentsia that had been scorning films for their lack of 'high culture'. Shaw particularly captivated the public and critics alike with his charm and ease of manner on camera, characteristics that were unexpected of authors and intellectuals (ibid., p.115). Noting the impact of these public figures, Fox subsequently sought out more eminent speakers from the entire globe and stepped up production on more 'artistic' feature films.

During this period, Western Electric was pressing Warner Brothers to place Vitaphone shows all over the United States. As Western Electric would benefit significantly from the sale or lease of their equipment, it would be to their advantage to maximise their resources. Warner Brothers resisted; it wanted to sell motion pictures not sound equipment and developed a strategy that placed Vitaphone films in first-run houses in a select number of large American cities over a period of time until placing them in the surrounding areas (Gomery 1980, p.41). The greatest advantage of this incremental approach for Warner Brothers was that it would allow Vitaphone products, namely shorts, to be continually displayed. Nonetheless, Western Electric retained some power over this situation by offering installations of equipment on a five-year plan, at which time the apparatus would revert to them (Walker 1978, p.21). Western Electric furthered their advantage over Warner Brothers (and other subsequent sound film studios) by creating the Electrical Research Products, Inc. (ERPI), a subsidiary that controlled the manufacturing and installation of amplifiers and loudspeakers. As a result, Warner Brothers was compelled to sign a nonexclusive licensee contract with Western Electric, or be without a means of sound reproduction (Eyman 1997, p.123). Despite this significant loss of control, Warner Brothers forged ahead. Not to be outdone again, they began gearing up for what would become the most important sound film in cinema history.

Sound film producers needed some way to combat the increase of sounds that that were entering people's homes on a regular basis, such as music and speech.¹³ By 1927 radio was the most dominant form of public entertainment and it was dramatically affecting the film industry.¹⁴ According to Millard

¹³ Musical performances were well established and sound effects were also a common fixture of radio programs, especially serials and vaudeville acts. Rather ironically, sound effects "helped relieve radio's incessant talking and allowed the audience to use its imagination" (Brunelle 1996).

¹⁴ For example, in October 1927 fifty million people stayed home to listen to Graham McNamee call the Dempsey-Firpo boxing match (Eyman 1997, p.178).

(1995, p.153), "radio appeared to be keeping Americans at home and way from the movie houses [...] On nights that popular radio programs were broadcast, receipts from theater attendance dropped alarmingly". Therefore, after two further films with synchronised scores,¹⁵ Warner Brothers exhibited a motion picture that included dialogue. It was called THE JAZZ SINGER. As an economic precaution, they premiered the film as what would later be called a part-talkie (i.e. only selected scenes had synchronised speech). Jolson's famous catchphrase "you ain't heard nothing yet" could not have been more appropriate. Despite this, the inclusion of dialogue was not the original intention of the Studio. To ensure synchronisation, each of Jolson's songs were recorded on separate discs, which corresponded to separate reels; it was only while recording the song 'Blue Skies' that a disc was left running and it picked up Jolson's exuberant conversation with his 'mother' (Eyman 1997, p.136). This uninterrupted and unexpected flow of human speech mesmerised the public and critics announced that it had ushered in a radical innovation to the art of filmmaking. It hailed, in the words of Rick Altman (1995, p.4):

a new kind of sound – not the theatrical kind meant to be projected to a larger public, but a new more intimate sound that is presented as private, and thus can only be overheard.

The viability of sound technological now had financial merit. Thus, at the beginning of 1928 other film producers in the United States were taking the prospect of sound films much more seriously. For the most part, European filmmakers focused on producing films as a means of artistic expression; therefore, most initially saw sound as a gimmick invented by Hollywood to cheapen their art. For them it was a total transformation of their craft. René Clair, who said that the talking picture was "a fearful monster, an unnatural

¹⁵ WHEN A MAN LOVES (February 1927) and OLD SAN FRANCISCO (June 1927)

creation," offered one such attitude (Fischer 1977, p.2). He saw American studios as "an organization of industrial Dr. Frankensteins working to fulfill a 'frightening prophecy'" (Fischer 1977, p.2). This idealistic need to preserve film as high art was typical of this transformation period and well within reason.¹⁶ Not to have considered sound technology worthy of sustaining a similar level, if not higher level, of art was perhaps short-sighted.

Despite the keen interest in sound technology, only one other Hollywood studio made use of it before the end of 1927. Paramount's World War One American Air Force film WINGS employed a prototype of an alternative sound-on-film system in development at RCA.¹⁷ In addition to this film being the first to be shown using this system, it had effects added to it after the picture had been shot.¹⁸ It was exhibited as a 'road show' film and as very few cinemas were equipped for optical sound, the necessary apparatus had to be taken to each motion picture theatre for its presentation. The effects, namely airplane sounds, were taken from "[disc] recordings using a multiple turntable device and synchronised by an operator back stage"; they were reproduced "through the use of condenser-discharge devices as well as from a score recorded on film" (Sponable 1947, p.420). This technically ambitious film was also the first to be awarded the Best Film Oscar by the Academy of Motion Picture Arts and Sciences. It is likely that the emphasis on realistic sound effects helped it achieve this honour. Noise and ambient effects, though relatively ignored by most early sound filmmakers, seemed to be highly favoured among sound technicians. According to Kellogg (1967, p.183):

¹⁶ 1927 alone saw the release of two landmark films, Lang's METROPOLIS and Gance's NAPOLEON

¹⁷ This system is explained in greater detail later in this section.

¹⁸ OLD SAN FRANCISCO (June 1927) had also featured overdubbed sound effects to simulate the 1907 earthquake that had shook that city; however, it caused the Vitaphone discs to lose some clarity. Despite this, it did extremely well at the box office (Eyman 1997, p.129).

There were many, even of the most enthusiastic advocates of sound-picture development at General Electric, who did not think of the chief function of synchronized sound as giving speech to actors in plays, but there was high confidence that there was a large potential market for sound systems for furnishing sound effects and background music.

What is certain is that the positive reception the film received provided another accolade to the use of sound in film production.

After *WINGS* very few full-length sound films were released in the first few months of 1928. Warner Brothers alone continued with the momentum they had established and produced more part-Talkies.¹⁹ More films meant more exhibitions and therefore, more manpower. Having already wired one hundred fifty-seven cinemas by the end of 1927, Western Electric began recruiting and training new technicians in the use and installation processes (ibid., p.183). The necessity of hiring knowledgeable personnel required them to bring in engineers from radio and associated fields. This became a greater necessity as the other American film producers decided in May of 1928 that they could no longer sit back as Warner Brothers and Fox Films reaped all the profits. The Hollywood studios sided with the sound-on-film system, and once they had negotiated contracts to license equipment from ERPI, they immediately went into production on their first sound films.

¹⁹ Two examples are *THE LION AND THE MOUSE*, which contained thirty-one minutes of dialogue in the sixty-five minutes of the picture; and *THE SINGING FOOL*, the follow up to *THE JAZZ SINGER*, which utilised large-scale shots and crowd scenes with music and overdubbed sound effects (Eyman 1997, p.177 and 197).

The First All-Talkies: Difficulties and Improvements

Part-Talkies soon became unviable, as audiences soon found it awkward to hear characters speak at one point then at other points 'speak' silently. Warner Brothers, probably less aware of this point and more aware of the potential profits, decided to produce an all-talking film. *LIGHTS OF NEW YORK* was released in April 1928 with twenty-two of its twenty-four sequences containing dialogue. Writers specialising in dialogue had been brought in to create a narrative where for the first time the spoken word was to carry the story instead of inter-titles (Walker 1978, p.69). According to Anthony Coldeway, a writer at Warner Brothers, it established their mode of pre-production; that is,

The sound script was first written without dialogue: if approved in that form the writers from then took it over and did the dialogue [...] The policy was to outline the story with dialogue in the first couple of sequences (Walker 1978, p.66).

In addition to the presence of incessant talk, the film features virtually continuous music that underscored the dialogue.²⁰ It also included an moment of natural aural perspective; in one scene, there is a distinct change in the volume of diegetic music as a door to a cabaret is opened and closed. The film was a huge box office success, grossing \$1.2 million, solidifying films that talk as the wave of the future.

Principally, this conversion to sound required a change of aesthetic and a change to many of the practical processes of filmmaking. The priority was to exclude external and unnecessary noise from the studio buildings.²¹ Firstly,

²⁰ Consequently, it is believed that "Warners might well have recorded the music directly to their discs and dubbed the dialogue over the music, rather than the other way around...At this stage, mixing fuzzed out music more than it did voices, and Warners was still under the impression that music was more important than the dialogue" (Eyman 1997, p.176).

²¹ This was based on the difficulties Warner Brothers experienced. Their original recording studio was situated near an external subway line and production had to halt each time a train passed.

stages had to be converted, as most were made of glass and lacked soundproofing material;²² they also contained three-sided sets that produced 'hollow' voices (Walker 1978, p.62). Secondly, arc lighting had to be replaced with incandescent lighting because of the buzz of the former and the later worked more effectively with the newly introduced panchromatic film stock and made much less noise (Salt 1985, p.38). Thirdly, cameras were placed in soundproof booths that totally enclosed the mechanism apart from a glass front. Naturally, this limited camera movement and the type of shots possible. Three stationary cameras were generally part of each set up, consisting of one for close ups, one for medium shots and one for wide shots. Fourthly, microphones in large numbers were camouflaged around the set to ensure actors were recorded and the signals were mixed during shooting in a monitoring room to attain consistent quality and the intelligibility of speech (Cass 1930, p.325). Microphones were also highly sensitive to shock from the vacuum tube amplifiers, so they could not be moved and, thus, actors had to remain close to them, which limited their mobility (Frayne, Blaney, Groves & Olsen 1976, p.519). Once a scene had been shot it was reviewed on the monitors and either shot again in its entirety or they would move to the next scene, creating a rather plodding shooting schedule. This new production method also demanded for 'quiet' on the set, which meant the crew and the actors not performing had to remain completely still and mute. This was quite a departure from the noisy days of silent filmmaking. The estimated cost for complete conversions was from \$23 million to \$50 million.

Both sound systems were not without their limitations and adjustments had to be made. Hal Mohr (Cameron 1980b, p.72), the Cinematographer on DON JUAN and THE JAZZ SINGER, explained that "sound was put directly onto discs, and hence each scene was recorded in its entirety from beginning to

²² In fact, most of Warner Brothers' earliest sound films were shot on studios that were not properly insulated and at times they had to make use of other film companies' studios.

end". This meant that sound editing was impossible, as the disc could not be cut. Operating a disc machine was an extremely complicated process that required perfect timing and precise handling.²³ The exhibition of a Vitaphone film required up to four technicians, making the projection booth a rather cramped working environment. The discs themselves could only be of temporary use in that "seeing a movie on the third or fourth day of use of a set of discs was a guarantee of scratchy, sibilant sound" (Eyman 1997 p.154). Discs could also crack, break or skip which would cause them to lose synchronisation and, therefore, they would be deemed useless and have to be replaced. Re-recording onto Vitaphone discs was also extremely complicated in that it involved multiple discs: one turntable held a counting record that determined the precise moment when other records that contained the required sound were to be started and stopped; all of which had to be done by hand (ibid., p.203). As a result, re-recorded items were never in perfect synchronisation. In view of all these restrictions and complexities, it is no surprise that further development of the sound-on-disc system ceased after its initial inception.

Similarly, the initial sound-on-film system also had its weaknesses. Fox's Movietone system could not lose synchronisation because sound and picture were inseparable, but this single optical system had other complications. According to Chanan (1995, p.73), while the film was being developed the "optimum contrast for picture and sound were different" and, therefore "the quality of both were compromised". The joining of sound and picture on one optical track also presented difficulties for the picture editors. According to James G. Stewart (Cameron 1980a, p.46-47), sound engineer and editor, "the editor must lead the picture by twenty frames (in 35 mm filming)" since the lens and the sound head of a projector cannot be located at the same

²³ See Eyman (1997) for a copy of the extensive duties expected of projectionists (p.156-157) and an example of a memo to projectionists about proper splicing (p.119-120).

point. This could cause the editor to cut the picture at incorrect places. In addition to this, Fox's sound-on-film system had a "tendency to black out on low-level modulation" and "lacked overall luminous intensity to [wider dynamic] recordings" (Frayne, Blaney, Groves & Olsen 1976, p.515). Although it had a frequency response of 8000Hz (nearly double Vitaphone), the fact that it could distort full orchestral scores and did not allow for bass tones made it less than ideal. Movietone's light cell also read emulsion grain on film, which produced quite a lot of background noise (Schoenherr 2001). All of this proved that this sound-on-film system was practical, but needed a significant number of improvements.

Competition to Movietone's system soon came in the form of RCA's 'Photophone' system. After forming a subsidiary utilising the combined research and equipment of General Electric and Westinghouse in the early months of 1928, RCA began working on an improved sound-on-film system (Sponable 1947, p.420). Via this amalgamation of expertise and technology, they began perfecting devices that would rival Western Electric and, thus, supplant their stringent licensing agreements. They also mobilised newsreel recordings to compete with Fox's domination of filmed news. Despite several demonstrations of the systems excellent quality, RCA could not find anyone willing to buy it.²³ Therefore, RCA's president David Sarnoff decided to create his own filmmaking company. In October 1928 he took over a small Hollywood studio known as FBO and the much larger Keith-Albee-Orpheum Theater Circuit and formed RKO Radio Pictures (Eyman 1997, p.153). Combining this new company with the right to manufacture sound equipment quickly made RCA one of the strongest competitors in the industry.²⁴

²³ The market had already been divided by Vitaphone and Movietone.

²⁴ In its first year RKO was committed to twelve sound films, which included Cecil B. DeMille's KING OF KINGS (1928), distributed by Pathé (Karney 2000, p.202).

While RCA was building up its empire, the other top American studios were re-launching theirs. By the end of 1928 every major producer had released a sound film of one form or another. Most commonly new films were begun, but very often coexisting productions were stopped in the middle of filming and sound was added to them.²⁵ However, this transition was not without its consequences. Considering the majority of directors lacked a theatrical background where dialogue scenes were a mainstay, many found it extremely difficult to adapt their skills to this new mode of production.²⁶ As a recourse, studio heads invited directors from the New York stage to help direct the dialogue scenes. Naturally, this tested many egos. Actors too were challenged by the advent of sound and most feared the prospect of failing sound checks if their voices were not found suitable to the new technology.²⁷ To protect their investment, producers brought in vocal coaches and elocutionists to help less able actors perfect their speaking voices. However, it must be said that they were not averse to acquiring theatre actors who already had the necessary skills. Ultimately, converting to sound also ushered in what could be called the eighteen-month reign of the 'soundman'.

Directors had their authority challenged on all sides by the new influx of sound engineers and technicians, who mostly came from radio. Producers were torn between their blind faith in the knowledge of sound personnel and the commercial investment in their directors. As the technicians lacked awareness of film production and their main concern was obtaining the

²⁵ For example, the Paramount production of *WARMING UP* (Newmeyer 1927) had initially been shot silent, but in wake of the success of *THE LIGHTS OF NEW YORK*, director Richard Dix offered to add talking sequences to the film. It also made use of 'wild track' dialogue (i.e. generalised talk recorded at random and not issuing from any specific lips) (Eyman 1997, p.179).

²⁶ Examples of some major commercial directors who did not survive the transition to sound films include: Fred Niblo (*BEN-HUR*, *THE MARK OF ZORRO*), Clarence Badger (*IT*), Marshall Neilan (*STELLA MARIS*, *TESS OF THE D'UBERVILLES*), Rex Ingram (*THE FOUR HORSEMAN OF THE APOCALYPSE*, *SCARAMOUCHE*) and Herbert Brenon (*PETER PAN*, *BEAU GESTE*) (Eyman 1997 p.192).

²⁷ For the most part their fears were ill founded as a great majority of the top stars featured in many of the early sound films. If they did not prosper it is most likely due to the demands of the new filmmaking process with which sound films presented them, rather than their voices being unsuitable. For further expansion of this argument, see WALKER, A. 1978. *The Shattered Silents: How Talkies Came to Stay*.

'cleanest' sound possible, numerous clashes developed between them and the filmmakers. Amazingly, these conflicts often led to innovations in sound film techniques. Wellman, during the filming of *BEGGARS OF LIFE* (1928), was told that his characters had to remain still in scenes with dialogue; as this was a ludicrous suggestion to Wellman, he placed the microphone on a broom so he could follow his actors around (Eyman 1997, p.227). This created a prototype for the boom microphone. Wellman is also credited with the inventing the shotgun microphone during the filming *CHINATOWN NIGHTS* (1928). When a soundman told him the actors could not walk and talk at the same time; Wellman's solution was to take the microphone and aim it at them from underneath the camera as it tracked along with the actors (ibid., p.228).

One of the key innovations in sound filmmaking came from Rouben Mamoulian. As a theatre director in New York, he had worked on operettas and musicals in which he frequently used sound for dramatic effect. Once recruited by Paramount in late 1928, he spent the first five weeks investigating the whole filmmaking process. Upon embarking his first feature film, *APPLAUSE* (October 1929), he immediately clashed with the sound crew. The conflict began when Mamoulian suggested the camera booth be mounted on rollers to achieve a complex camera shot, and technicians scoffed at its feasibility because of the noise it would create; it was soon followed by Mamoulian's suggestion that two separate voices be recorded on two separate microphones, relayed on two different stripes of film and put together in the laboratory; to this the technicians also laughed (ibid., p.225). In spite of their protests, the film was treated Mamoulian's way and to their amazement, it worked. As a result of the ability to separate sounds, technicians and engineers were able to begin the development of a sound-on-film system that had two optical tracks.

Other innovations in sound evolved from pure experimentation with style and form. Fox's short *NAPOLEON'S BARBER* (November 1928) and full-length *IN OLD ARIZONA* (December 1928) were both shot outdoors, which not only defied the sound technicians' restriction, but also provided these films with an array of naturally occurring sounds. Universal's *THE WAGON MASTER* (1928) was shot in a stage that had not been soundproofed, where no silence was permitted in conversations.³³ In addition, the main actors were chosen because of their two extremely different voices in order to establish contrast. In *THE TERROR* (August 1928) the titles and credits were audibly announced by the shadow of a masked man and in *CAUGHT IN THE FOG* (December 1928) the principle character directly addresses the audience (Walker 1978, p.82, 119-120). One of the most creative uses of sound came from an animated short by Walt Disney. On 18 November 1928 Disney released *STEAMBOAT WILLIE* that featured movement unknown in live-action sound films thus far. Irrespective of it being a cartoon, producers were challenged by the activity it generated and desired to recreate it in their films.

³³ Normal practice was to provide a gap between speakers.

Reinventing Film Forms and Foreign Markets

Despite the earnest desire for motion, the majority of filmmakers were still struggling with the inability to move the camera or their actors. Consequently, this and the general lack of financial experimentation prolonged the inertia in most sound films at this time. Walker (1978, p.198) summed up the prevailing attitude by stating:

The Mamoulians were very few: not many directors could (or were encouraged to) relate sound and dialogue to a visual design: the microphone could do the work storytelling for them more swiftly, clearly and cheaply.

Thus, where silent films could be highly emotive and action-packed, a majority of these early sound films were wordy and static.³⁴ The novelty of Talkies was quickly receding and, consequently, audiences were beginning to become bored with them. As huge investments had been made, studio heads needed to devise a new way to enthuse the public about sound. The answer came from vaudeville: they decided to reinvent the musical. On 1 February 1929 Metro-Goldwyn-Mayer (MGM) released BROADWAY MELODY, billing it as 'all singing, all dancing, all talking'. In the modern musical tradition it had songs and music written specifically for it, and, despite being very static, it had "hard-bitten, slangy vernacular dialogue that gave [the film] a sense of pace and vitality" (Eyman 1997, p.137-138). The film also unintentionally led filmmakers to the idea of playback (i.e. using pre-recorded material over the picture). When the studio's producer asked for a scene to be reshot: it was suggested, to save time and money, that they shoot the sequence while the actors were dancing to an earlier recording of the orchestra. This was meant to be an alternative to the costly process of re-shooting and re-recording each take with a live orchestra. MGM followed BROADWAY MELODY with King Vidor's HALLELUJAH (20 August 1929), a film shot completely in playback

³⁴ In fact, at one point critics began calling these films 'squawkies'.

which allowed for unfettered movement and the addition of impressionistic sound effects (Walker 1978, p.188). Both were tremendously successes, inspiring other Hollywood studios to produce similar musicals or revues as full-length features.³⁵ In addition to this, musicals changed the configuration of loudspeakers in cinemas: as sound was now being associated with the action on screen, all speakers were moved from the orchestra pit to a position behind the screen. Thus, establishing Hollywood's convention of 'hiding' sound and allowing images to dominate storytelling.

Immobility also changed the nature of film comedy. The silent era comedian was dependent on highly mobile physical gags and visual gestures to carry their humour. Sound encouraged the talking comedian. In April 1929 Harold Lloyd's Paramount film *WELCOME DANGER*, originally shot as a silent film, eventually showed a profit after a very expensive re-shoot. Although audiences still enjoyed the (relatively limited) physical humour, amusing dialogue overshadowed it (Eyman 1997, p.25). As a result, the comedy writer quickly gained status and many verbally creative films were released based around particular vaudevillian comedians and comic troupes. Chief among those was the first cinematic offering of the Marx brothers, known as *COCOANUTS*. Its release on May 3 1929 was Paramount's further venture into sound comedy and its astounding success marked the future for film humour. As a result, pantomime swiftly became much less prominent and joke telling and wise cracks replaced it.

Melodramas and thrillers were found to be the easiest to adapt to this style of early sound film production. By their nature they were wordy, character-driven and required little camera movement. Nevertheless, a few filmmakers instilled fresh ideas in their work in order to stave off any potential audience

³⁵ Examples include: *PARAMOUNT ON PARADE* (Paramount), *THE SHOW OF SHOWS* (Warner Brothers), *SUNNY SIDE UP* (Fox) and *THE KING OF JAZZ* (Universal).

displeasure. During the filming of *INNOCENTS OF PARIS* in early 1929, music, voices and bird whistles were simultaneously recorded on one track over stock footage of the city to provide a sense of realism (ibid., p.258). Once again, many innovations came as a result of tension between director and sound technicians. In *DYNAMITE* Cecil B. DeMille's anger over the inability to move a camera down stairs led him to demand that it be taken out of the booth; the technician protested about the noise that the camera would produce, so DeMille threw several blankets over it (ibid., p.262). Though the camera could no longer be moved easily, it birthed the idea of the 'blimped' camera (i.e. a box large enough to envelop the camera magazine with a hinged door for access and the interior lined with 'blankets' to dampen the sound). This development would be the most significant in giving filmmakers the freedom of movement they had been desperately desiring. A further idea was to shoot films with shorter and punchier scenes, giving them a less theatrical style. A prime example was MGM's *BULLDOG DRUMMOND* (May 1929), which featured in addition to sharp cutting, close ups highlighted by sound and Ronald Colman's eloquent vocal qualities (ibid., p.266).

Colman was one of many actors imported from abroad that helped bolster sound within the film industry. In fact, beginning in 1929 many British actors were invited to the United States in the belief that their accents gave American films an air of dignity and status, chiefly personified in George Arliss' performance of Disraeli. Moreover, as the English language dominated the American cinema, actors who had originally come from the European Continent and had not mastered the language or had 'difficult' accents were replaced with actors who were easier to understand and/or bilingual.³⁶ Despite this, many were retained to portray distant exotics or sexually provocative characters, and several were also used to facilitate foreign

³⁶ For example, actors Emil Jannings, Vilma Banky and Conrad Veidt were all considered to have undesirable accents.

language duplicates of American films. Until re-recording was available, directors would shoot two to three simultaneous foreign language versions of the same film - usually in French and German. Once re-recording became practical, subtitles that appeared at the bottom of the screen were used.³⁷ Therefore, as Hollywood was drawing more talent away from Europe, filmmakers from that continent were gearing themselves up for sound film production.

Britain, Germany and Russia began the European foray into sound. Although not England's first all-Talkie, Hitchcock's *BLACKMAIL* (25 November 1929), has left an indelible mark on cinematic history. It was originally shot as a silent film, but the production company allowed Hitchcock to reshoot many of the silent sequences. Its reputation rests in the fact that "the resulting film retains the visuals qualities, pace and use of locations associated with the silents, successfully blended with the recorded dialogue and sound effects of a Talkie" (Karney 2000, p.207). However, it was also Hitchcock's experimentation with impressionistic sound, namely in the scene where the murderess hears the word 'knife' repeated subjectively, that expressed a creative approach to sound unknown in America. Germany, despite still battling litigation on patent infringement, began work in late 1929 on *THE BLUE ANGEL* at UFA. The director, Josef von Sternberg, having returned from the United States, employed the skills in sound film production he had gained there. The film demonstrated masterful camera skills and greatly advanced the career of a relatively unknown Marlene Dietrich. Most significantly, Soviet filmmakers began championed the cause of sound film. As early as 1928 directors Eisenstein, Pudovkin and Alexandrov argued for more creative uses of sound. In their manifesto *A Statement* (August 1928) they suggested that

³⁷ One notable exception was the Laurel and Hardy films at the Hal Roach Hollywood studios, where the actors would perform the entire script in a foreign language after being taught to pronounce the words phonetically (Eyman 1997, p.334).

there should be "a brutal discord between sound and image" in order that "sound and music can become new elements in the art of montage in that they offer counterpoints and fresh perspectives to the image on screen" (ibid., p.197). Their purpose in promoting this asynchronous use of sound was chiefly to establish a universal language for the cinema inasmuch as it differed from the naturalism of the theatre.³⁸ After these initial steps forward, the other remaining European countries eventually joined Britain, Germany and Russia in the production of sound films.

By the end of 1929 the conversion to sound had made a dramatic impact on the entire cinematic world. In Europe approximately 1200 cinemas had been equipped for sound while in that year alone 4000 movie theatres in the United States had sound systems installed, bringing the total to 8741. The top Hollywood studios were swiftly becoming some of the most financially powerful companies in the United States, despite having overextended themselves to convert to sound production.³⁹ Accordingly, the American studio heads were reaping the wealth and influence that came with their new positions in society. When the United States Stock Market crashed on 24 October 1929, the Hollywood Studios were more fortunate than other companies.⁴⁰

³⁸ Despite these strong statements, Thompson (1980, p.139) argues that none of the early Soviet sound films used counterpoint throughout, quite often it dwindle or disappeared after the narrative had been set in motion and it tended to interfere with the clear progression of the narrative when used in relation to positive elements.

³⁹ Eyman (1997, p.341) reports that Warner Brothers' profit for 1929 was \$17,271,805 (a rise of \$15million from the previous year); Fox's were \$9,469,050 (nearly double); Paramount's were \$15,544,544 (also nearly double); and MGM's were \$11,756,956 (a slight rise as they were already one of the top earners).

⁴⁰ The only major casualty of the Depression was William Fox, who not only had outstanding debts but also got involved in a series of lawsuits over alleged patent infringements that eventually led him to bankruptcy in 1936 (Eyman 1997, p.355)

Standardisation and New Technology

By the beginning of the next decade, sound technology had proved its commercial viability, having survived the mixed reactions of the public and critics. By 1930 sound-on-disc technology was virtually obsolete. The vital improvements made on the light-valve method of sound-on-film systems, namely RCA's Photophone, had encouraged film producers to adopt them as their preferred method of sound recording and reproduction.⁴¹ Thus, sound engineers and technicians focused their research solely on modifying and enhancing sound-on-film and its necessary peripherals. Simultaneously, they began writing articles and offering a series of lectures on a variety of issues regarding sound technology through the Academy of Motion Picture Arts and Sciences not only to update the industry but also to unify it (Kellogg 1967, p.196). These first steps toward standardisation established:

- The soundtrack on 35mm film as monaural;
- Dialogue and story writing teams become customary;
- The increased use of boom microphones
- The near universal adoption of soundproofed ('blimped') Mitchell cameras.⁴²

To help projectionists make smooth changeovers, MGM studios also introduced a visual signal that quickly became standard; that is, round, black spots ('bloops') would appear at the end of a reel in the upper right hand corner of the screen for four consecutive frames: the first set is the signal to start the motor of the incoming machine, and the second set was to signal to cut over picture and sound (Eyman 1997, p.349). Most significantly, as a

⁴¹ All except Warner Brothers, who continued producing sound-on-disc films until 1932.

⁴² The only exception was Warner Brothers who continued using other cameras until 1931.

result of introducing these standards through an open interchange of information, the aggressive rivalry between producers began to subside.

Improvements in sound technology targeted diverse aspects of the entire system. Having given filmmakers the freedom of movement in the 'blimped' camera, technicians focused their research and development on equipment that would improve the overall quality of the sound. Their primary object of their work was to eliminate unwanted sounds (i.e. hiss). To that purpose, they introduced a ground-noise reduction device (GNR) in 1931 that utilised a "galvanometer biased with a single narrow line of transparent film when the modulation was zero" (Kellogg 1967, p.205). By controlling the amount of light, the frequency range could be extended; as a result, scratches and dirt that normally caused background noise at low frequencies could be reduced. In addition, more sophisticated sound editing and mixing equipment was developed. Synchronisation improved significantly with the creation of the sound Moviola in 1931. Although it had to be hand-cranked and required editors to view the film through a magnifying glass, the Moviola simplified editing and helped reduce long static takes (Millard 1995, p.276). Devices to equalise and compress sound were also introduced at this time. Equalisation allowed for periods of near-silence as it enabled mixers to adjust the volume of different sounds, whereas compression allowed loud passages to keep their amplitude without becoming distorted (Kellogg 1967, p.210). As a result, editors and mixers were able to control the sound quality of the entire film.

Advancements in the construction of loudspeakers and microphones enhanced recording and reproduction. As the original condenser microphone discouraged movement and produced a very faint signal, much work had gone into creating a microphone with greater capabilities. By 1931 two 'new' microphones had been developed. W. C. Wentz, who had constructed the

original condenser, and his colleague A. C. Thuras at Bell Laboratories devised a microphone that used a moving-coil behind the diaphragm. Unlike the earlier microphones, its voltage output was determined by the amount of resistance, or impedance presented to the moving-coil (Schoenherr 2003). At low impedance these 'dynamic' microphones allowed transmission over long cables without loss of quality. Simultaneously, at RCA, technicians had created the ribbon, or 'velocity' microphone. This microphone was bi-directional with a figure-8 pickup pattern, which used a small ribbon that moved inside a magnetic field according to the difference in sound pressure on each side of the ribbon (ibid., 1999-2003). Its design eliminated unwanted sounds from the sides, but its large size and weight limited it to fixed locations. In 1931 Bell Laboratories also developed a two-way loudspeaker, which they called 'divided range'. It was devised in such a way that the high frequencies were reproduced by a small horn with a frequency response of 3,000-13,000 Hz, and the low frequencies by a 12-inch dynamic cone direct-radiator unit with a frequency response of 50-10,000 Hz (Schoenherr 2001). By separating the high and low frequencies, it not only allowed for a wider range, but it also allowed for greater equalisation. Combined with the noise reduction system, sound reproduction in cinemas gained much higher fidelity and presented the audience with fewer distractions.

During this period, the enormous advances in sound technology granted even more freedom to filmmakers. Those who had been fighting against the tide of the advent of sound were now less inhibited by it. Confidence grew in the new technology as there was now a more superior means of controlling both aural and visual ingredients. Additionally, as a result of a lawsuit brought about by Warner Brothers in 1932, ERPI was forced to drop their compulsory weekly service fee and leasing arrangements and had to sell their equipment outright (Eyman 1997, p.362). This freed Hollywood studios from ERPI's five-

year monopoly. Consequently, as early as February 1930 only five percent of all films made in the United States were silent and by 1932 the percentage dropped to nearly zero. America's conversion to sound was complete.

Early Unconventional Uses of Sound: European and American

As America moved towards an accepted standard, European filmmakers, epitomised by the French and German, began using sound as a primary storytelling device. In general, they either employed asynchronous sound to add an additional layer of meaning to the film narrative or they use synchronous sound to draw attention to literal objects as a way of preserving realism. The former held that sound complemented the contrasting images in Russian montage in that aural counterpoint could infuse the narrative with additional meaning by expressing a message distinct from the one revealed through the images. As such, they believed that sound did not need to synchronise with the images to communicate a storyline effectively. The latter saw sound as a means of replicating the 'real world'. Their approach to sound was much more naturalistic and therefore predicated on exact synchronisation. They tended to use sound to highlight the *vérité* of historical events so they could be perceived as non-fiction films and not the product of a filmmaker's imagination. Attempts to convey these adopted styles resulted in many experimental uses of sound being developed between 1930 and 1932.

In early 1930 France and Germany combined efforts to stave off American domination. It was then that René Clair, who had vehemently opposed sound film, began production on a trio of musical comedies using asynchronous sound: *SOUS LES TOITS DE PARIS* (1930), *LE MILLION* (1931) and *À NOUS LA LIBERTÉ* (1931). His use of counterpoint in these films challenged naturalism and perpetuated the illusion of film. In *SOUS LES TOITS DE PARIS* a fight at a railway embankment, obscured by shadows, is conveyed through the roar of the passing trains; whereas in *À NOUS LA LIBERTÉ* when a woman singing suddenly begins to whine and fade we realise as the song begins

again that it was a phonographic recording emanating from another flat (Knight 1985, p.216-217). Clair's use of sound in *LE MILLION* functions as a stylistic hybrid. The film vacillates between a variety of aural styles: synchronous dialogue, mismatched singing, on- and off-screen choruses and scored accompaniment to mimed gestures. Arguably, this mixture added to Clair's conception of film as an abstract art form. Fischer (1977, p.46) stated that Clair was also intimately involved in the process of scoring this film and prepared the shooting script with tremendous detail in terms of music and dialogue. The imagination in these three films demonstrated a level of creativity yet to be explored in the West.

At the same time, Germany was also beginning to experiment with sound technology. In 1931 Nero Films produced Fritz Lang's *M* and G.W. Pabst's *KAMERADSCHAFT*, two films that exemplify the differences between the aforementioned theoretical approaches to sound film construction. *M* has been called a silent sound film in that it lacks a musical score.⁴³ In the Eisenstein tradition, it is a film that relies heavily on sound and picture editing to influence the audience's perception of the narrative. Lang's editing seems to be chiefly predicated on provoking the audience to infer off-screen presences and actions; this is personified in the killer who is not revealed visually until a third into the film. Prior to this, he is only identifiable through his voice or the tune he whistles. Carroll (1985, p.268) suggests this gradual revelation of the narrative is "analogous to a detective's relation to his clues". In doing so, Lang provides the audience with an opportunity to participate in the investigatory nature of the film. In contrast, *KAMERADSCHAFT* was shot in documentary style, where camera movement, as opposed to editing, conveys the story. As the film was based on an actual event, Pabst was principally concerned about capturing the detail for authenticity; therefore,

⁴³ Reasons for which are currently unknown.

sounds throughout the film were a representation (not a reproduction) of reality, allowing mainly for a sense of depth (ibid., p.272). As a result, audiences could be led to think that this film was a credible account of the events. Ultimately, both film styles had merit and promoted further alternative approaches to sound filmmakers.

Despite the general tendency to use sound conservatively in the United States, a few filmmakers employed sound beyond the norm. Universal's *ALL QUIET ON THE WESTERN FRONT* (1930), directed by Lewis Milestone, made significant use of dubbing. He shot his scenes of troops on the march and in the trenches with a silent camera and then added the whine and crash of bombs, the clatter of small-arms fire and the shrieks and moans of the wounded and dying (Knight 1985, p.215). The graphic nature of these sounds was said to have shocked and horrified audiences. The film also contained scenes where sound was used specifically to draw the audiences' attention through spatial references. In one scene marching slowly fades out as the camera moves back from the scene and reveals a schoolroom in the foreground wherein the noise of the schoolchildren rises (Millard 1995, p.281). As early as 1929 Ernst Lubitsch had also released films featuring post-production dubbing,⁴⁴ however, he also made use of aural and visual counterpoint. Early in Lubitsch's *BROKEN LULLABY* (1932), while a minister prays for peace, the camera moves slowly down the centre aisle of the cathedral, passing rows of kneeling officers, whose swords stand stiff by their sides (Knight 1997, p.214). Thus, the audience was led to appreciate the irony of that moment. Another notable exception can be found in the opening of Paramount's *THE BENSON MURDER CASE* (April 1930). Eyman (1997, p.358) stated that "it opens with a smashing montage of the stock market crash: a buzzing of surrealistic crowd noises, melting numerals, towers of

⁴⁴ Two examples include *THE LOVE PARADE* (1929) and *MONTE CARLO* (1930).

coins falling" in a series of rapid shots. As such, this use of aural ingredients serves as one of the rare uses of the Soviet method in an early American sound film.⁴⁵

The theoretical divide between synchronous and asynchronous sound persisted, and with it a further divide between films made in the United States and those made in Europe. The epitome of early American studio filmmaking was achieved in MGM's *GRAND HOTEL* (April 1932). In America the film was declared "the most important film since the arrival of talking pictures" and "screen art at its highest" (Karney 2000, p.235). It featured an unprecedented number of stars in staged settings and communicated its narrative chiefly through the dialogue of the characters. The film's sound effects were sparse, literal and solely used to express fidelity; the film score functioned mainly as an echo of its emotional content and it dressed the images like a musical veneer. In addition to the aural content, all the work that had gone into the visual aspects (namely, picture editing and camera movements) was effaced in order that it did not interfere with the dialogue and, above all, that it preserved the clarity of the images. Ultimately, it gave sound a utilitarian rather than artistic function; that is, it was not used as an integral part of the storytelling, it merely supported the images. *GRAND HOTEL*'s outstanding success further solidified the principal role of sound that would dominate American filmmaking for several decades.⁴⁶

What can be inferred by the working practices agreed upon after the transition to sound is that the United States had decided that the novelty of

⁴⁵ Another notably montage can be heard in the opening sequence of Mamoulian's *LOVE ME TONIGHT* (1932) where a series of sound effects announce the beginning of the day.

⁴⁶ Naturally, exceptions existed, but they were rare. Consider the words of director Frank Capra: "Reality is not visuals and sound balanced, but integrated - one indivisible unity. I don't think that you should weigh the visual against the aural aspects of film [...] You're telling a tale; you're communicating. This whole business is communicating from people to people. Not from camera to people, but from actors to audience. If the machinery gets in the way - if you notice too much sound or too much visual - you lose your audience, because you lose the communication and the involvement" (Cameron 1980c, p.83-84).

speech was the main attraction. The continual success of early 'Talkies' established a standard for film sound that has now become ingrained in American filmmaking: the clarity of dialogue was paramount and any form of ambivalence was not to be entertained. In light of this principle, Hollywood Studios were not motivated to use asynchronous or 'unnaturalistic' sound. Therefore, there was little to no interest in these abstract uses of aural ingredients because it offered potential confusion to how one interprets the narrative. Moreover, as the human voice took precedence, foregrounding any other sound would have distracted the audience from the dialogue. This approach ultimately lent itself to sonic fidelity being used in an inconspicuous manner (i.e. sound was made subservient to the image). Preserving this fidelity soon became the sole purpose of film sound in the United States film industry. This conservative methodology has guided many of the subsequent developments and uses of sound technology in mainstream Hollywood.

Furthermore, it confirms that in the American film industry sound, apart from dialogue, principally served a utilitarian purpose. It initially afforded a competitive edge within the industry's corporate structure, but this was merely to allow Studios to acquire an economic advantage over their opponents. Their interest was not the promotion of a new aesthetic, but in yet another strategy to help them enlarge their empires. By prioritising profits, Hollywood was not acting inconsistent with the general ethos of capitalism. However, once sound became accepted by all the major Studios, all high risk strategies were avoided and any competition that would have inspired alternative uses of sound were stifled. Standardisation may have brought unity to Hollywood, but it also denied the Studios the opportunity to explore a variety of ways aural ingredients could further enhance a given narrative.

Creative Fidelity: KING KONG and CITIZEN KANE

In late 1929 the ability to record and control tracks separately that could then be combined into one single track was introduced. This paved the way for dubbing (i.e. the re-recording and mixing of tracks). The major thrust of this technological breakthrough was evidenced in a plethora of films that dominated the first half of the next decade, which had elaborate dance routines and energetic singing acts. As noted earlier, the music could be added after the fact. Live synchronicity was no longer necessary and that saved studios time and money. Hence, soundtracks with dubbed music became the norm and very few filmmakers used this technology to introduce sound effects; if they did, it was kept to a minimum. This was in part because the noise produced by the film stock and loudspeakers deafened the filmgoer to any aural subtleties, and because the Studios had the perception that the visuals already carried the information, so effects were unnecessary. According to Walter Murch (1995, p.247), "as late as 1936 films were being produced that added only seventeen additional sound effects for the whole film". Consequently, a virtual sonic emptiness pervaded many of these films.

Over the next two decades the sound content of most films did not progress much further. Music continued to underscore the entire content of the majority of releases, becoming more like aural wallpaper than an internalised ingredient. This continual musical scoring, however, aided in supplying the atmosphere for most of these films. This, in turn, gave further emotional depth to scenes and greater emphasis to the action. Sound effects were rarely added to the atmosphere.⁴⁷ Noise and ambient effects had a basic

⁴⁷ In addition to noise masking most effects, their exclusion can also be attributed to sound libraries being relatively limited, so the number different sounds used by sound editors was restricted, and early condenser microphones were not very sensitive, so they had a hard time picking up footsteps and body movements. Though this latter problem was soon remedied by Jack Foley's "direct-to-picture" method (i.e. actions onscreen were recorded in post-production by duplicating that exact action), it was still used sparingly.

function, which was to direct the audiences' attention specific objects or events onscreen. They were generally heard independent of the music and rarely over the dialogue. Human speech remained central to film production. As such, many sound films of the 1930s to the early 1950s seemed more like stage plays or musicals. Prime examples would include the aural emptiness of the outdoor scenes in *FRANKENSTEIN* (Whale 1931); Korngold's lush, but externalised, score for *THE ADVENTURES OF ROBIN HOOD* (Curtiz 1938); and the lack of sonic space suggested in the voices of the characters in *GASLIGHT* (Cukor 1944) or *ALL ABOUT EVE* (Mankiewicz 1950).

During this period, a film that made exceptional use of sound was *KING KONG*, released in 1933. Its cumulative use of special effects in a single film was unprecedented. According to Roger Ebert (2002) "the movie plunders every trick in the book to create illusions, using live action, back projection, stop-motion animation, miniatures, models, matte paintings and sleight of hand"; most of which bolstered the visual credibility of the mixture of live-action and animated beasts of a bygone age. However, it was Murray Spivak's team of sound engineers that gave these creatures a greater dimension of credibility by infusing them with emotion. To achieve authenticity, the sound crew went to the zoo and recorded many animals. However, actual recordings were less than satisfactory for they only produced sounds that were easily identifiable as contemporary living creatures and therefore unsuitable for ancient beasts. As a result, Spivak designed 'new' animal sounds by way of re-recording. For the creation of Kong's growl he stated:

I went to the Selig Zoo and arranged to record some lion and tiger roars at feeding time [...] Then I took some of those roars back to the studio and put them together and played them backward. I slowed them down, sort of like playing a 78 r.p.m. record at 33, until the tone was lowered one octave, then I rerecorded it. From this we took the peaks and pieced them together [...] Then we added a sound tail at the end so it would die down naturally instead of coming to an abrupt stop (Goldner & Turner 1975. p.188).

The result of which gave Kong a terrifying monster-like 'voice' rather than a natural gorilla sound, allowing the gorilla's menace to correspond with his colossal proportions.

However, Spivak's team also gave the ape a sensitive side. In the so-called 'love scenes' between Kong and Ann Darrow (Wray) the massive creature emits quiet, non-aggressive grunts. These sounds were performed by Murray Spivak himself, who recorded them at different speeds (Faiola 2003, p.4). Spivak's voice also contributed to the allosaurus's vocalisations. His screeches were combined with an old puma recording and a steam-like noise from a compressed air machine; the speed of all of these noises was then modified (DVD commentary). Similar experiments were done to create the 'voices' of the remaining prehistoric creatures, providing the film with a set of 'realistic' monsters.⁴⁸ All of the above sounds were recorded in their entirety on discs, which were edited into the film by lining them up by hand and then playing them live in the studio. The recordings were subsequently locked in at three frames before the actual image to ensure synchronisation between sound and vision.

In addition to these technical achievements in sound effects, KING KONG can claim a landmark musical score. Producer, Selznick, and director, Cooper, were strong supporters of the work of Max Steiner, who had only recently begun composing film music at RKO.⁴⁹ As the film was largely dependent on the audience believing the fantastic elements, the music was needed not only to mask the illusion of the visual effects, but also to heighten the drama and accentuate the emotional content. To achieve this Steiner employed a variety

⁴⁸ In addition to re-recording the animal sounds, a majority of Fay Wray's screams were recorded in post-production and then cut into the picture (Faiola 2003, p. 4).

⁴⁹ Before KING KONG he had composed music for RKO's CIMARRON (Ruggles 1931) and A BILL OF DIVORCEMENT (Cukor 1932) (Walker 2001, p.412).

of techniques, which subsequently became characteristic of his style and influenced many other composers. First and foremost, one distinguishing feature of Steiner's score for KING KONG was that it was composed for the film - he did not make use of pre-existent classical works within the body of the film, which was the conventional practice. Moreover, the music was designed to be an integral part of the film, rather than simply a decoration.⁵⁰

Steiner began composing the music in the early part of December 1932 while the editing was still in progress.⁵¹ He wrote the score in sequence during an eight-week period. Steiner wrote the score in the German Romantic tradition in spite of the fact that the dynamic range of most recording studios limited the orchestra to forty musicians. Consequently, they were packed into the studio to maximise the extent of the recording. The reduced number of musicians meant that several of them had to play more than one instrument within a given cue or passage. Steiner wrote quite a lot of music for the film, as it was decided that a nearly continuous score would be the most effective way of 'camouflaging' the animated creatures. Therefore, he mainly discussed with Cooper the places in the film where music should be excluded or restrained. For example, the opening eighteen minutes of the film has no music to allow for exposition. Other omissions allowed the sound effects to take precedence; these include when Kong battles the allosaurus and when the airplanes attack Kong on the Empire State Building.⁵²

Throughout KING KONG the music emulates the action seen on the screen, as a one would expect in an animated film; hence, the term now used to

⁵⁰ This was not the first instance of such scores being composed; it was only the one with the highest profile. In fact, according to Bernard Herrmann (Cameron 1980c, p. 118), Karol Rathaus' score for Ozepe's THE BROTHERS KARAMOZOV (1931) was the first known integral score written exclusively for a film.

⁵¹ The majority of information in this paragraph can be found in Faiola (2001?). *King Kong: Original Motion Picture Soundtrack – liners* [online] and OLSEN, J., (2001?). *King Kong: An In Depth Analysis of Max Steiner's Score in Context of the Film* [online].

⁵² Although the music resumes when Kong realises he is near death.

describe this technique is 'mickeymousing'. According to Handzo (1985, p. 410), Steiner mastered this mode of synchronisation through his invention of a 'click track'. This device automatically kept record of the tempo of visual actions and then converted them to a rhythm. As a result, Steiner's music was able to heighten physical actions, facial expressions, dialogue and even sound effects. An instance of mickeymousing can be heard when the island chief leaves his throne and walks down the stairs: his footsteps are synchronised perfectly with the bass notes that are heard with each step. Another example can be heard when Jack is running after Kong and Ann. Bright, fast-paced music accompanies him when he is in motion, but when he stops to look around the music also stops; it then resumes when he starts running again. In a further occurrence, an ascending scale can be heard as Kong climbs up the Empire State Building. This musical technique draws attention to specific actions at key moments in the film.

In view of his classical training at the Imperial Academy of Music in Vienna, Steiner was immersed in the German Romantic idiom, namely the works of Wagner, Mahler and Richard Strauss. Thus enriching Steiner's score was his extensive use of Wagnerian leitmotif – a melodic phrase to denote a recurring character or feeling. His score for KING KONG is comprised of melodic themes and motifs that are associated with specific characters or scenes. Whenever Kong makes an appearance on the screen, the music identifies his presence with three descending chords. According to Olsen (2001?) this motif creates "[a] mood [that] is grim and dangerous, just as vicious as the beast himself is portrayed". The islanders are given a drum-based theme, evoking a primitive motif that identifies them as 'savages'. In fact, in both instances when this music is heard it emerges before the islanders are visually present, allowing it also to serve as a warning. Again, while Jack is in pursuit of Kong the music switches from low brass when the camera is on Kong to solo

clarinet when on Jack, further emphasising the characters' presence on the screen. From the moment of Kong's capture, the music slows and becomes more dramatic, engendering sympathy towards the massive ape. At the moment of King Kong's death the music communicates a tender, romantic love theme, which emerges as a variation of the gorilla's own musical motif.

The result of this extensive sound integration is that this implausible narrative becomes credible and, at times, emotionally moving. By granting the creatures new 'voices', audiences could be led to accept the possibility of their existence within the world presented in the film. Their savagery and also their suffering were clearly manifest. Furthermore, Max Steiner's score enabled those who experienced the film to see beyond the technical achievements by his use of continuous music that highlighted the action and contained themes for particular characters and sequences. As a result of its extensive sound and visual design, KING KONG proved to be a popular success.⁵³ This demonstrated that if filmmakers used music, dialogue and sound effects imaginatively, they had the ability to add credibility to any filmic environment. Nonetheless, it is perhaps because the film lacked the approbation normally attributed to prestige features (i.e. high quality 'realistic' human dramas), that the Studios in the 1930s did not follow its example.

Accordingly, KING KONG's virtuoso sound effects inspired very few filmmakers of the mid-to-late thirties to exploit aural effects to such an extent.⁵⁴ However, this work inspired technicians to improve upon the way sound could increase a greater sense of 'realism' between the audio and visual ingredients in a film. At Bell Telephone Laboratories in 1933 they began experimenting on what they called 'auditory perspective' According to

⁵³ The film achieved \$5 million at the box office (Gunn 2003, p.3)

⁵⁴ Exception can be found in films by Rouben Mamoulian, Fritz Lang and Alfred Hitchcock.

Kellogg (1967, p. 212), three microphones were spaced across the stage with their outputs separately transmitted to three similarly located loudspeakers in the auditorium where the sound was to be reproduced. As a result, a symphony concert produced in Philadelphia was transmitted over wires to Washington, where it was heard stereophonically. Fletcher (1940, p.3) added that this mode of reproduction allowed for the complete frequency range of the orchestra and enhanced the volume range. The results of this test led to further experiments in broadcast stereo, most of which were targeted at the reproduction of music for the prospering record industry. In fact, no application was made to film until seven years later.⁵⁵

In 1936 the Academy of Motion Picture Arts and Sciences encouraged higher standards in cinema loudspeakers.⁵⁶ Initiated by Douglas Shearer, head of MGM's sound department, a two-way horn system was introduced. This new loudspeaker combined previous technologies by driving the high and low frequencies through different units and by including passive crossover filter that monitored both frequencies. This loudspeaker provided for a uniform frequency response from 40 to 10,000Hz, controlled directivity, high efficiency and much higher power. In spite of its significant improvements, it still produced a noticeable hum. Consequently, in 1938, the Academy set up a committee to study the standardisation of theatre and sound equipment.

⁵⁵ Walt Disney's original release of FANTASIA in 1940 was recorded using three audio tracks and one control track. They also used a unique optical printer with an anamorphic lens system, which doubled the track width. For re-recording the separate mono tracks they were mixed into three audio channels, while keeping the fourth control track separate from the main mix. In the auditorium during reproduction, sound was dispersed manually to three loudspeakers while a 'pan-pot' provided constant level fades between close and distant microphone pick-up, creating the simulation of movement.

However, FANTASIA failed to interest audiences and critics alike. Aldred (1993?) attributes this initial disapproval to the fact that most people viewed classical music as too highbrow, and thus the film was viewed as pretentious. Its sound system, now dubbed 'Fantasound', did not survive beyond a limited number of showings. As Disney had to 'road show' the film to recoup costs (\$2 million), the fact that it required a huge amount of equipment presented a problem to cinemas for it demanded that they close for several days to allow for installation and, what is more, many cinemas lacked space in their projection booths. Thus, after a short run, the Fantasound system was dismantled in aid of the war effort. In spite of its sudden disappearance, this technical achievement marked tremendous inroads towards greater fidelity.

⁵⁶ I am indebted to the 1977 AMPAS Newsletter Number 21 for this information.

Following tests on samples of dialogue and music from all major studios, it was decided to limit high frequency response to 7Khz because it was effective enough in reducing background noise. However, this did not take into account loudspeaker performance or theatre acoustics. It was not until 1940 that the Academy instituted a programme to study the acoustic variation in cinemas. Though their equipment was not very sophisticated, they discovered that even if the auditorium was aligned to the Academy standard, disparate results existed. This remained a 'problem' until the advent of magnetic recording and reproduction technology.

It was at this time that radio introduced film to a whole new realm of sound. *CITIZEN KANE* (1941) owes more to Orson Welles' background as a radio performer, director and scriptwriter than to any filmic convention.⁵⁷ Welles substantially expanded the stylistic use of sound effects and music as no director had before. Welles' now legendary version of *War of the Worlds* (1938) showed the power of sound to carry the imagination and he hoped to integrate this approach into film. It was the ability to make a total illusion into a plausible and utterly convincing reality that fascinated him. As a regular radio actor and director he had made himself intimately familiar with the sound techniques usually employed on air.

CITIZEN KANE is predicated on the soundtrack to such an extent that it could be labelled the visualisation of one of Welles' radio plays. Throughout the film, the techniques used to manipulate sound effects, music and dialogue create an auditory world that could possibly stand alone. It is this near separation of sound from the image that allows the soundtrack to drive the film. Full prominence is given to the role of sound in shaping the narrative. In this way, Welles emphasises sound's vital importance to what is seen on

⁵⁷ However, he cites Renoir's *THE RULES OF THE GAME* (1939) as one of his inspiration.

screen.⁵⁸ This realignment of the balance between sound and vision is reflected in Welles' overall sound design of the film,⁵⁹ which suggests a world that echoes our actual aural perceptions of space, distance and significance.

Techniques that characterise sound effects from radio broadcasts can be heard throughout the film. Welles was aware of the power of the human voice and so many of the effects he used were attempts to extol and exploit its many facets. The reverberation of speech features significantly in scenes that involve large spaces, namely those in the Great Hall of Xanadu, the Thatcher Library and Madison Square Garden. In all of these scenes reverberating echoes give the illusion that the locations are massive, though we are shown very little visually. Reverb was also added to many close-up scenes to amplify their prominence or mystery; for example, Kane's (Welles) last word, 'Rosebud'. Changes in volume, or what the Sound Editor James G. Stewart called 'fading the microphone', were used to give the perception of distance. This is skilfully deployed in the scene where young Charles Foster Kane is being sent away by his parents. The boy is heard at a low volume playing outside in the background while in contrast, his parents and Mr. Thatcher (Coulouris) are seen and heard in the foreground. This technique is also prominent at the end of Susan's (Comingore) 'first' opera performance as the camera tracks up to the rafters of the theatre and when Leland (Cotton) wakes to hear Charles typing his review of Susan's performance (Brophy 1985-1987). These radio techniques enabled the film to emulate a sense of depth; thus, forcing the screen to give up its flatness. In addition, Welles employed polylogues (i.e. overlapping dialogue) to create a realistic texture to scenes with many people in conversation.⁶⁰ Lastly, the narrative is constructed around the encounters of an investigative reporter and his

⁵⁸ This is especially true since the film contains very few visual close-ups; thus, demanding that sound and motion direct the audiences' attention.

⁵⁹ Stewart, the Sound Editor, credits Welles with the sound concepts in the film (Carringer 1996, p. 105).

⁶⁰ Further cacophonies of noise are used throughout the film.

interviewees. The reporter's face is hidden from view throughout the entire film, which suggests that his function is that of a narrator (i.e. our 'witness' to the story). In fact, his interviewees also function as part-narrators, as they are given the task of introducing themselves and their own recollections of Kane's life.

Additionally, *CITIZEN KANE* contains sound effects that function as aural punctuation. A specific noise or utterance marks many transitions from one scene to the next. According to Millard (1995, p.282), Welles' purpose behind having an unbroken soundtrack beneath the change of images was that it provided continuity. Hence, doors shutting echo into the next scene, a screech of a cockatoo announces a new scene, or a character's voice trails over the cut, effaced the work involved in the editing process. Exceptions to these extremely smooth transitions were those that communicated the passing of time. The 'cross fade' used to identify the years where Kane as a young boy grows into an adult is expressed verbally; here, Thatcher is stopped mid-sentence in one scene and then shown concluding his sentence approximately twenty years later.⁶¹ An example of a sound montage that marks time can be heard in the breakfast scene featuring Kane and his first wife; the deterioration of their marriage is depicted in short scenes that gradually use less and less dialogue. These techniques were also common in radio, but had never before been applied to film.

To achieve these recordings Welles employed some rather unorthodox practices. Not only did he unearth studio floors to insert cameras, he also removed ceilings and replaced them with false ones to enable him to hide the microphones just above the actors. These arrangements allowed Welles to use as much of the location sound as possible. According to Carringer (1996,

⁶¹ A similar transition occurs when Kane acquires *The Chronicle's* staff.

p.103), "special touches were added in the re-recording process, but in many of the sequences the sound is essentially as it was recorded on set [in order to generate] immediacy and spontaneity". For example, Kane's political speech was initially recorded with Orson Welles' natural speaking voice: to which snippets from approximately twelve different recordings were added to give it a more powerful effect. Nevertheless, Welles did occasionally record sound or voices in post-production for it allowed actors the freedom of movement.⁶² This technique may have been common practice for singers in musicals, but it was unusual to use it for dramatic actors in non-singing roles. Perhaps the most radical departure Welles made from the norm was to begin the film with just a silent black screen (i.e. no main titles and no title music) before panning up to the 'No Trespassing' sign. The composer, Bernard Herrmann (Cameron 1980c, p.126) stated that the studio only added the title and the RKO trademark when those attending the premiere "could not accept a film beginning in complete silence". As sound could not be added, this compromise seemed to have let it pass by unnoticed.

Herrmann had composed many scores for the Mercury Theatre before joining Welles on CITIZEN KANE.⁶³ Herrmann's approach to the music was as unconventional as Welles' approach to the film's overall conception. Unlike those following the German Romantic tradition, Herrmann avoided using a full orchestra,⁶⁴ long passages and orthodox combinations of instruments.⁶⁵ Furthermore, he read the script before viewing the film and began composing before the first edit. In total Herrmann worked fourteen weeks on the score, which included being involved in the editing process and the re-recording of

⁶² For example, the final scene in the Great Hall was shot silent (Carringer 1996, p. 105).

⁶³ The information in the following can be attributed to Herrmann (Cameron 1980c) and Carringer (1986), unless otherwise stated.

⁶⁴ The only parts of the film that feature a full orchestra are the opera scenes and the end (Carringer 1996, p.106)

⁶⁵ For the opening scenes Herrmann used three bass flutes, two clarinets, three bass clarinets, three bassoons, a contrabassoon, four French horns, three trumpets, three trombones, a vibraphone, kettledrums, a gong, a bass drum and bass viols (Carringer 1996, p.106).

some passages. His overall musical concept was that "it [must] seem like playing the accompaniment to a song without a melody". Ultimately, Herrmann could not conceive of this or any film using music that was divorced from it. The combination of sound and vision was integral to the successful telling of the story on film.

Herrmann viewed *CITIZEN KANE* as a romantic film; thus, many of his themes illustrate this notion. Chief among them was what Herrmann called the 'Power' theme. The source for this motif was the music used as Kane's self-congratulatory anthem at the party at the *Inquirer*.⁶⁶ Herrmann then uses the first four notes of this music (i.e. those that accompany *There is a man*) throughout the film to illustrate one side of Kane's personality. It is first heard in the opening two bars of the score in muted brass. To express Kane's contradictory nature, Herrmann created the 'Rosebud' theme, using a vibraphone. This brief phrase can be heard distinctly for the first time when the camera focuses on the snowglobe in Kane's hands at the moment of his death. Later, it is also heard when Kane meets Susan on the street and he mentions his mother. Here, in both instances, the music signifies the emotional heart of the character and the film. The two motifs repeat, in whole or in part, in a multitude of variations throughout the score, growing darker and darker as they follow the storyline.

In addition to these less than orthodox orchestrations, Herrmann employs two well-known musical forms in the film, a waltz and an opera; however, even these are altered inasmuch as they suit the film's narrative. He was asked to compose the music for the opera sequence as no known conventional opera began with a soprano aria. Welles requested music that reflected the French Oriental style of opera: big, flamboyant and historical. To

⁶⁶ The music was based on the Mexican song 'A Poco No' by Pepe Guizar (Carringer 1996, p.108).

that end, Herrmann composed the piece in the style of Richard Strauss and borrowed a libretto from Racine's *Phèdre*. The purpose of the piece is to demonstrate Susan's inadequacy for opera. The vocal part is written as tessitura, thus demonstrating that Susan who has a modest little voice, would be hopelessly unsuitable for the role. Herrmann hoped to create something that would give the audience the feeling that Susan had been thrown into quicksand. Elsewhere, during the breakfast scene with Kane and his first wife, Herrmann employs another romantic notion. Each change in mood and each cut is designed to be a variation on a basic waltz theme, giving unity to the series of short scenes so that they function as a whole. Additionally, Herrmann allows the waltz to grow increasingly discordant as the breakfast montage progresses: echoing their doomed relationship.

As a result of all these innovations, Herrmann's score transcended that of the then classical tradition of film music. It did not simply mimic the action on the screen; it communicated a deeper resonance with the film's overall narrative. Herrmann defied the standards by using smaller groups of musicians and unorthodox instruments. In doing so, his music helped promote a more intimate and effective relationship between sound and image.

Nonetheless, the advancements and initiatives it introduced along with those of the sound effects were overshadowed by the controversy the film generated upon its release. Although the use of sound in the film played no part in the controversy, it may well have discouraged other filmmakers from adopting the creative styles Welles employed in *CITIZEN KANE*. Naturally, many other reasons exist, namely financial. The rerecording cost alone was double the expected amount (Carringer 1996, p.105). However, what is certain is that this hesitancy demonstrated the fear of taking risks that paralysed some aspects of the film industry, especially in regard to sound. To

those that experienced the film on its initial release,⁶⁷ it certainly challenged them to think more creatively about the uses of sound effects, music and dialogue.

Both KING KONG and CITIZEN KANE were handled by RKO Radio Pictures, a small studio that took risks despite constantly being near economic ruin. Having taken over production in 1931, David O. Selznick had instituted:

A system whereby independent producers were contracted to make a specific number of films for RKO entirely free from studio supervision, with costs shared by the studio and producer, and distribution was guaranteed by RKO (Cook & Bernink 1999, p.28).

It was in this manner that KING KONG and CITIZEN KANE were made. Selznick was also instrumental in persuading the East coast office's of KING KONG's merits, though he left RKO before it was completed. The film's triumph at the box office instituted a series of independently produced and directed prestige pictures at RKO.⁶⁸ However, by 1938 they were faced with bankruptcy. Welles was drafted in to save the company, and after a few false starts, began working on CITIZEN KANE. The freedom given to Welles was without precedent, and the closeness his story shared with the real life of William Randolph Hearst, drew severe criticism. Hearst's papers denounced RKO and its employees, and it refused to advertise any of RKO's film if they did not withdraw CITIZEN KANE from public screening. Following this trouble RKO had only a few years of success, when it returned to unit production, before collapsing in the mid-1950s.

Despite fluctuating in these practices, RKO Radio Pictures stands in stark contrast to a majority of the other major Hollywood studios and acts as a

⁶⁷ CITIZEN KANE was re-released in the late 1950s at the height of the auteur movement and has since then come at the top of many best film polls on repeated occasions.

⁶⁸ Some examples include: TOP HAT (Sandrich 1935), BRINGING UP BABY (Hawks 1938) and DANCE, GIRL, DANCE (Arzner 1940)

precursor of future independent filmmaking. The fact that it lacked a 'mogul' may suggest why it allowed for greater artistic freedom. It was also unconcerned with identifying itself with a specific 'brand image'; it simply wanted to be the studio where under certain budgetary restraints filmmakers could work without interference.⁶⁹ In this way, it suggests that RKO offered a working environment that was less repressive than other studios. Furthermore, these practices encouraged greater collaboration. In reference to *CITIZEN KANE*, Pauline Kael (1971, p.62) stated:

Most big-studio movies were made in such a restrictive way that the crews were hostile and bored and the atmosphere was oppressive. The worst aspect of the factory system was that almost everyone worked beneath his capacity. Working on *Kane*, in an atmosphere of freedom, the designers and technicians came forth with ideas they'd been bottling up for years; they were all in on the creative process [...] *Citizen Kane* is not a great work that suddenly burst out of a young prodigy's head. It is a superb example of collaboration.

What can be gleaned from the above is that *KING KONG* and *CITIZEN KANE* may not have been made in this way (or at all) if they had been under the supervision of another studio. More importantly, by way of the practices at RKO, filmmakers were encouraged to exploit aural ingredients in an unconventional manner.

⁶⁹ In fact, RKO set up a production programme for low-budget films in 1942. One of these units was run by Val Lewton, who was asked to produce a series of horror films that should not exceed \$150,000 and should not require more than three weeks in production. Under these constraints, Lewton was allowed to choose his own personnel and work without interference. His first film, *CAT PEOPLE* (Tourneur 1942) cost \$134,000 and on its initial release garnered \$3million. Its success helped save RKO from a second bankruptcy. (Cook & Bernink, 1999, p.30). *CAT PEOPLE* was also one of the first films to replace images with sound effects in order to suggest a threat.

The Historical Development of Magnetic Sound

The innovation of magnetic sound recording and reproduction brought about a marked improvement to sound quality in the 1950s. As it emitted only minimal camera hiss, magnetic sound was crisper and cleaner than optical technology. It drew less attention to the film apparatus, which allowed for fewer distractions from the narrative and a greater elevation of aural detail. As a result, further integration of the visuals with the music, sound effects and dialogue were possible. The steps that led to its invention and subsequent use were fed by competition, both internationally and domestically.

Magnetic sound technology finds its origins in wire recording.⁷⁰ As early as 1888 Oberlin Smith, an American mechanical engineer, patented and published his idea of recording electrical signals by the telephone onto a steel wire. Based on this article Danish inventor Waldemar Poulsen soon afterward began developing a practical sound recorder using this very method. This machine, called a *Telegraphone*, was described as a device to record telephone messages in the absence of the called party: a telephone answering machine. After demonstrating it to several potential investors Poulsen sold the rights to manufacture and distribute it to America, who consequently formed the American Telegraphone Company. Unfortunately, in 1918 this company entered receivership after having sold only a few hundred machines.

Building on the attempt of De Forest, who had tried unsuccessfully to apply the *Telegraphone* with his 'Audion' tube amplifier to motion pictures, German inventor Curt Stille in the early 1920s modified Poulsen's device to use

⁷⁰ I am indebted to MORTON, D., RUSHIN, D., SCHOENHERR, S. and HANDZO, S. for much of this information about wire and magnetic recording.

electronic amplification. This was subsequently adopted by a British motion picture company, Ludwig Blattner Picture Company. They produced and distributed synchronised soundtracks on wire. Their subsequent failure to attract wider attention inspired Stille to join with Marconi in the construction of machines that use steel tape instead of wire. As a result of this improvement, the British Marconi Wireless Telegraph Company purchased the rights to Stille's patents. In 1932 the British Broadcasting Corporation began using these recorders for their Empire Service radio programmes.

Simultaneously, a large German manufacturer (Allgemeine Elektrizitätsgesellschaft [AEG]) purchased the patent rights of the inventor Fritz Pfleumer, who had proposed the idea of a system for recording on paper coated with a powdered steel layer that could be magnetised. AEG set about to design a recording device, while collaborating with the German chemical company I. G. Farben to develop a suitable tape. Upon discovering the benefits of coating tape with carbonyl iron, AEG were able to manufacture and demonstrate a recording of the London Philharmonic Orchestra at the Berlin Radio Exhibition in 1935. This successful presentation encouraged the German radio authority (Reichs-rundfunk Gesellschaft) to replace their earlier recorders with these new machines. Subsequently, this device (called the *Magnetophon*) also proved profitable with the public. In 1941 Walter Weber and Otto Von Braunmuhl of AEG radically improved the sound quality of the Magnetophon by mixing in a high signal during recording.⁷¹ As a result of this high frequency (AC) biasing, the machine grew rapidly in reputation.

In the United States, Bell Telephone Laboratories had also begun researching steel tape telephone recording systems. Despite having many prototypes and designs by 1931, none of them entered production. It was not until 1939

⁷¹ American and Japanese engineers had also discovered and developed high frequency biasing at this time, but recognition is attributed to Weber and Von Braunmuhl for the discovery (Bruck, Grundy & Joel 1999).

when the Brush Development Company of Cleveland, Ohio developed steel tape and coated-paper tape recorders that American companies began investing in the manufacture of such devices. During World War II various types of recorders were successfully sold to the military, mainly as a means of recording intercepted U-boat messages. Under a subsequent Navy research contract the Brush Development Company joined with the Minnesota Mining and Manufacturing Company (now 3M) to produce a tape coated with ferromagnetic powder. Thus, in the summer of 1945, these two companies developed a workable high fidelity magnetic tape with a smooth surface and the uniform dispersion of ferromagnetic powder that would tolerate being drawn over a magnetic head so that electromagnetic signals could be recorded.

Concurrently, John T. Mullin, a Signal Corp technician, discovered two *Magnetophon* recorders in the studios of Radio Frankfort in Bad Bauheim. The following year Mullin demonstrated one of the machines at the Institute of Radio Engineers in San Francisco. Due to its high fidelity the industry response was phenomenal. One of those who heard the presentation was a representative of Bing Crosby, who felt this machine would solve the problem of the inferior sound of pre-recorded programmes on radio. After an extremely successful recording of Crosby's first show of the 1947-48 season, the device was adopted by all of the major American broadcasters (CBS, NBC and ABC) and many of the larger stations around the country as a replacement for their DC-biased wire recorders. However, for many months afterward they still had musicians stand by in fear of breakages or splice failures. Once assured of the tape's resilience, this practice ceased and gradually this type of recording moved from the control rooms to the recording studios.

Following these developments, greater advances were made to magnetic recording devices in order to create an industry standard. Ampex Corporation in 1948 introduced their first tape recorder in series called *Model 200*, which was not only used to make master recordings but was also used as a transcription machine for radio stations (Millard 1995, p.200). Then in 1949 Magnecord added a second head to its portable *PT-6* tape recorder to create the one of the first open reel stereo tape recorders.⁷² All of these devices were improved by gradual increases in tape strength and quality. Most significantly, in 1951, Stefan Kudelski of Switzerland built his first prototype of the *Nagra*: a portable, self-contained tape recorder with a wind-up motor. This device, following further improvements, was to become the standard for production and post-production sound recording.⁷³

This also caused a demand for superior loudspeakers.⁷⁴ In 1950 a relatively new company called Altec Lansing developed a directional horn called the *Mantoray*. As it could aim isolated high frequencies in a specific location without moving into others, it complemented the emerging stereo system. Directionality was also enhanced by Western Electric, who produced what they called an Acoustic Lens. It consisted of a series of perforated discs, equally spaced in front of the diaphragm, and a succession of slanting vanes. These lenses allowed for vertical distribution into the balconies and stalls. Other improvements included new air enclosures that extended bass frequencies, but as these required replacing existing equipment, Studios were hesitant to adopt them.

⁷² This development came at the request of General Motors, who had asked Magnecord to make a stereo recorder to improve spatial analysis of automobile noise (Schoenherr 2001)

⁷³ In 1958 the film industry adopted Kudelski's *Nagra III*, a battery-operated transistorised filed tape recorder with a 'Neo-pilot' sync system (Bruck, Grundy & Joel 1999).

⁷⁴ I am indebted to the 1977 AMPAS Newsletter Number 21 for this information.

Magnetic Sound Film Formats

Once practical and reliable magnetic recording had been established by 1945, the film industry had also begun to experiment with it for film production. Initially it was used for non-synchronous items, mainly music, but its use quickly spread. Paramount was one of the first American studio to convert totally to magnetic film for recording, editing and mixing.⁷⁵ In 1950 Loren Ryder, their sound technician, won an Oscar for his efforts. By the end of the following year, seventy-five percent of Hollywood feature production and post-production was processed using magnetic film. This improvement allowed for cleaner soundtracks. Audiences began to hear denser sound effects and more distinct Foley than attempted in the previous decades. Lush musical scores were still present, maintaining the convention, although there was less of a need to mask the workings of the apparatus. Simultaneously, Hollywood began introducing different forms of music to comply with the market demand for non-classical scores. Crisper dialogue, however, still retained its pole position in the soundtrack. All of which became powerful tools against their new competitor.

Radio and now television were drawing audiences away from regular cinema attendance. To sustain their economic growth, Hollywood studios were anxious to produce a product that offered the filmgoer a radically different experience. To compete with television's daily offerings of picture and sound that came into your own home, main features had to be visually bigger and aurally denser. In view of this, the major Studios released a number of majestic 'epics', large-scale 'westerns' and grand 'musicals' throughout the 1950s. To present these films differently they decided upon reformatting their

⁷⁵ In Germany Klangfilm had started using magnetic film in 1945

screens to be much wider,⁷⁶ using colour more frequently and applying multi-channel stereophonic sound to their film presentations. Despite having considered all of these items impractical when first introduced, the American film industry now felt they compared favourably with television's black and white pictures and monaural sound. By capitalising on these differences, Hollywood was hoping they would draw the public back into the cinemas and help the film industry to thrive again.⁷⁷

The first of these new systems was called Cinerama and it premiered its first film, *THIS IS CINERAMA* (Cooper et al), on 30 September 1952.⁷⁸ After carrying out tests to determine the number of channels necessary for this widescreen format, engineers Hazard Reeves and Wentworth Fling of Reeves Soundcraft realised that at least five channels would be needed behind the screen. A 7-track head stack was created to work the soundtrack; these seven tracks fed eight speakers (five behind the screen and three around the auditorium), where tracks six and seven were manually switched between stereophonic surround and monophonic surround for selected scenes in this film. In other scenes the 'umbrella' configuration (360°) was employed; that is, this configuration sent one track to both left and right walls and the other to a speaker in the middle of the rear wall.⁷⁹ The five speakers behind the screen corresponded to five omni-directional microphones that had matched the positions held by the images on screen. There were also one to three identical microphones that had been used to record off-screen sounds. In doing so, sounds were heard from their point of origin. *Cinerama's* 'point-

⁷⁶ Television had adopted the Academy aspect ratio (4:3).

⁷⁷ In addition to these 'big' main features, Studios also bolstered their income by producing and/or distributing smaller productions ('B' movies). All of which were released in Academy ratio with monaural soundtracks (to keep budgets low).

⁷⁸ I am indebted to Kay, Ghent, Chumney and Lutkins (2001?) *Cinerama History* [online] for the following information.

⁷⁹ This was commonly used to make sounds pass over the audience.

source' reproduction was handled by a 35mm magnetic full-coat film⁸⁰ run in interlock with three projectors for the 75-foot, 146-degree curved screen. Its full-coat film allowed it to be shown at a fast speed with excellent fidelity, but the tremendous expense and technical complexities involved in the system led to only a few more features.⁸¹ It was finally abandoned in 1963.⁸²

Encouraged by the initial presentation of Cinerama, Twentieth Century-Fox halted the production of a current film to begin re-shooting it with an anamorphic lens.⁸³ The film was called THE ROBE (Koster 1953) and they named the process *CinemaScope* to emphasise its wide aspect ratio.⁸⁴ While filming, studio head Darryl F. Zanuck invited other Hollywood studios to make use of *Cinemascope* under their license. Despite having yet to prove its worth, Metro-Goldwyn-Mayer and Walt Disney responded immediately, shortly followed by Warner Brothers, Universal, and Columbia.⁸⁵ For demonstration purposes, THE ROBE was shown using 3-track interlocking stereo, but it was quickly reformatted with 4-track stereo sound upon release. *CinemaScope* used what is called 'directional' sound; that is, it not only had the dialogue follow the actors on screen, but it also positioned certain sounds throughout the cinema; such as, marching soldiers were heard moving left to right across the screen, offscreen voices were actually heard 'offscreen'⁸⁶ and thunder, wind and rain were heard coming from different locations.⁸⁷ To achieve this stereophonic effect with dialogue, production

⁸⁰ That is, film with oxide across the entire width of the film

⁸¹ Namely, SEVEN WONDERS OF THE WORLD (Garnett et al 1956) and HOW THE WEST WAS WON (Hathaway 1962)

⁸² However, it was temporarily adapted by Todd-AO as Super Cinerama, using an anamorphic lens.

⁸³ However, they simultaneously shot it in the standard Academy format for release in theatres not equipped for anamorphic projection.

⁸⁴ After attending a presentation of Chrétien's *Anamorphoscope* filming process in France, Fox acquired rights to it. Chrétien had unsuccessfully been trying to promote his invention for over twenty years and his patent had expired prior to this exhibit.

⁸⁵ Paramount refused outright and began working on a similar process, whereas RKO and Republic remained hesitant.

⁸⁶ This occurs when voices warn Macellus of his ship departure to Judea.

⁸⁷ This occurs in the crucifixion scene.

dialogue was recorded live with three boom microphones simultaneously.⁸⁸ Consequently, upon its release on 16 September 1953, *THE ROBE* was highly praised for both its sound and picture.

The stereophonic sound in *CinemaScope* presentations proved to be quite complex. As opposed to one single negative containing the music, dialogue and effects, magnetic film used three outputs to put those three ingredients on separate stripes on one strip of film. Each oxide stripe was embossed on either side of the sprocketed holes on the picture film with a thinner fourth stripe that enabled a surround effect. The sprocket holes themselves were smaller than previous film types, thus allowing more room for the soundtrack. For reproduction, the film was projected onto a curved screen 64-feet wide and 26-feet high with three speakers behind the screen.

Following the success of *THE ROBE*, Twentieth Century-Fox declared that they would no longer produce films in the conventional manner and many other Hollywood studios began making use of the *CinemaScope* process.⁸⁹ However, the expense of converting equipment for cinemas in the United States and abroad forced them to continue producing films simultaneously in Academy aspect with optical monaural sound.⁹⁰ Warner Brothers attempted to establish their own sound system (*WarnerPhonic*) in connection with the 3-D craze, which consisted of three stripes on a separate magnetic film for left, right and centre speakers; while part of the optical track on the release print carried surround noises for the auditorium speakers (Handzo 1985, p.420). *CinemaScope* put this inferior system out of business.

⁸⁸ Fox and Todd-AO were the only other companies to record dialogue with directional sound. All other Hollywood studios provided music in stereo for magnetic soundtracks, but recorded voices and sound effects in monaural (Schoenherr 2001). The latter method proved to be a much more effective.

⁸⁹ For example, Fox released *HOW TO MARRY A MILLIONAIRE* (Negulesco 1953) and *BENEATH THE 12-MILE REEF* (Webb 1953); Disney produced *20,000 LEAGUES UNDER THE SEA* (Fleischer 1954) and *LADY AND THE TRAMP* (Luske et al 1955); and MGM presented *KNIGHTS OF THE ROUND TABLE* (Thorpe 1953) and *SILK STOCKINGS* (Mamoulian 1957)

⁹⁰ Twentieth Century-Fox also offered a single-track magnetic version (Handzo 1982, p.420)

In addition to Warner Brothers' attempt to challenge Twentieth Century-Fox, Paramount created their own widescreen system with multi-channel sound. Their *VistaVision* system premiered in 1954 with their release of *WHITE CHRISTMAS* (Curtiz), utilising what they called *Perspecta Sound*. This sound system employed a single, conventional monophonic soundtrack, but it was manipulated in recording by three control tones (sub-audible signals) that turned up the gain on the left, centre and right hand channels (Baldock 1995). Thus, the system was not true stereo but simulated it by creating directional effects. According to Kellogg (1967, p.213), this was achieved by filtering the separated sounds through three variable amplifiers, which fed three loudspeakers behind the screen. It communicated a sense of movement and a wider dynamic range. It proved to be even quicker than *CinemaScope* to mix, as it merely required the sound to be panned between the three channels. Nonetheless, *CinemaScope's* dominance in the market discouraged any Studios from converting to this format.

A further contender was Todd-AO. One of the original investors in *Cinerama*, Mike Todd, developed a system that closely emulated that of *CinemaScope*. In 1955 his company fashioned *OKLAHOMA!* (Zinnemann) with a six-track system that drove five speakers behind the screen and one monaural surround channel that fed up to nineteen speakers. For the film Todd-AO's 65mm negative was printed on a 70mm release print, devoting 5mm to the soundtrack (i.e. 2.5mm on either side of the image). Additionally, only the music was recorded in stereo; dialogue and sound effects were recorded monaurally and then 'panned'. In the Todd-AO system one could go from production to release print in three generations, as opposed to six or seven with optical releases. The image was projected on 50-foot wide, 25-foot high screen that was 13-foot deep in the centre. The practical advantages of Todd-

AO made it the only viable competitor to *CinemaScope*, which helps explain why it remains a highly regarded post-production sound studio today.

The major Hollywood studios had believed that multi-channel stereophonic sound would become the standard that would replace optical monaural. However, magnetic sound had its shortcomings. The production 35mm magnetic prints cost double that of optical prints. The magnetic stripes could only be added after the picture frames were fully developed and this was done by painting or rolling them on and then waiting three days for them to dry (Technical Training Resources 2001?). Moreover, the alloys used in early magnetic heads were soft and wore out under the grind of regular operation. In reproduction, the surround channel produced a noticeable hiss in loudspeakers and lacked bass response. Often surround sounds were not fully synchronised and they could be heard in the rear of the auditorium before the sound from the main speakers behind the screen. Furthermore, Hollywood studios, other than Twentieth Century-Fox, rarely mixed sounds into the surround channels. Consequently, by 1954 a majority of cinemas opted to combine the four tracks into one; thus rendering them monaural. Rick Altman (1995, p.5) also suggested that directional dialogue - talk that ping-ponged back and forth across the screen - and the intermittent use of surround sound worked against the notions of high-fidelity audiences had come to expect in monaural sound via radio and earlier films.⁹¹

Because of these many criticisms, by 1956 most magnetic sound films were also striped with optical tracks. At first, Twentieth Century-Fox balked at the use of optical sound with *CinemaScope* features due mainly to their large financial investments in magnetic film. Following the introduction of a

⁹¹ Stereo recording and reproduction in radio and the record industry initially became commercially viable in 1954, but it was not until 1958 that the world standard for stereo records was established and 1961 when the Federal Communications Commission of America adopted the stereo format for radio broadcasts (Schoenherr 2001).

Magoptical print that carried a half-width monaural track in addition to the four magnetic soundtracks, they finally relented. Eventually standard monaural optical sound resumed as the norm. Magnetic stereophonic sound was only utilised by first-run cinemas for a handful of major releases each year. The economic strategy of investing in magnetic sound had failed, and with additional financial difficulties, the Studios made no further internal ventures in sound technology.¹⁷

¹⁷ Magnetic technology did not completely disappear, it resurfaced in the mid-1970s to accompany 70mm blow-up prints of films, such as *STAR WARS* (Lucas 1977), *APOCALYPSE NOW* (Coppola 1979) and *E.T. THE EXTRA-TERRESTRIAL* (Spielberg 1982).

Stylistic Uses of Music Post-WWII to 1959

While the above technological changes in sound sought to improve fidelity, there were also stylistic uses of sound that generally reflected the radical shifts in society after World War Two. In the years during the war Hollywood echoed the two extremes in American culture: that of optimistic (and often jingoistic) escapism and that of pessimistic (and often realistic) hopelessness. Sound, namely music, brightened or darkened in respect to these extremes. This trend continued into the early fifties reflecting the concerns of the Cold War between Russia and the United States. Furthermore, scores deviating from conventional orchestration appeared to become the rule rather than the exception. Concurrently, teenagers began rebelling against the norms of society, ushering in a new and vibrant youth culture.

Film scores of this period were quite often composed using unorthodox instruments and various musical forms. According to Evans (1979, p.190), the commercial success of Anton Karas' zither theme for *THE THIRD MAN* (Reed 1949) led to more experimentation with unusual instruments. Thus, many producers and music publishers (along with composers) saw the economic value of cultivating scores that communicated ethnicity or a specific location. An example of this was Alex North's use of timbales, bongos, marimbas and mandolins in an attempt to capture the Mexican setting in Elia Kazan's *VIVA ZAPATA!* (1952). In *BOY ON A DOLPHIN* (Negulesco 1957) Hugo Friedhofer employed Greek instruments and elements of Greek folk music to express the film's setting (Evans 1979, p.151). In another example, Mischa Spoliansky made use of a unique instrument, the panpipe, in an attempt to evoke the ancient setting in Preminger's *SAINT JOAN* (1957). By employing these unconventional instruments, the composers were able to add a sense of

historical and ethnic relevance to their scores that reached beyond evoking emotion and driving action.

At this time, jazz or jazz-influenced scores also became acceptable in mainstream filming, despite having already established a presence in earlier films. Jazz music and jazz musicians had featured in films as earlier as 1917⁹² and thereafter the word 'jazz' appeared in the titles of many pre-sound films. In 1929 Duke Ellington and Bessie Smith had featured in two Dudley Murphy films that used jazz diegetically as well as an inherent part of the narrative (Meeker 1981, number 343 & number 2776).⁹³ In the 1930s the big band of Paul Whiteman and the swing of Benny Goodman became synonymous with filmed nightclub settings. Later, from 1941 to 1947 brief films, called 'soundies,' were shown on special jukeboxes to showcase a variety of popular music forms. As radio broadcasts of 'black' musicians in America were significantly restricted, these soundies gave wider exposure to the jazz and blues performed by them (Mundy 1999, p.94). Thus, as so-called 'race music' grew in popularity with mixed audiences, more white musicians and composers adopted these styles as their own, granting them wider acceptability.⁹⁴ Throughout these years, jazz became increasingly associated with life in the modern city (i.e. wild living, crime, violence and selfish ambition).

In 1951 Alex North created the first known jazz-based score for a feature film. In Kazan's *A STREETCAR NAMED DESIRE*, North uses the diegetic jazz music emanating from the 'Four Deuces' club as a basis for the transitions to the nondiegetic jazz (with added strings) as the film moves from scene to

⁹² *THE GOOD-FOR-NOTHING* (Blackwell) which featured The Original Dixieland Jazz Band is said to be the first known fictional film where jazz musicians appear (Meeker 1981, #1239).

⁹³ These films are *BLACK AND TAN* and *ST. LOUIS BLUES* respectively.

⁹⁴ This was also encouraged by the rise of independent record companies in the 1940s, which recorded music considered not commercial enough for mainstream audiences. These companies included: Excelsior (formed in 1942), Apollo (1943), King (1944), Chess (1947) and Verve (1949) (Millard 1995, p.227).

scene. He also employed it to shape themes that reflected the mental states of the characters, rather than the characters themselves (Evans 1979, p.121). As the narrative of the film deals with insanity, death and rape in New Orleans, the use of jazz in North's music added a further element of insecurity for the characters within the urban setting. Building on this approach, Elmer Bernstein wrote a jazz-based score for THE MAN WITH THE GOLDEN ARM (Preminger 1955). As the main character in this film is an aspiring drummer, a jazz milieu is central to the narrative; thus, the music for the title sequence is heard diegetically throughout the film (although from no particular source). As the main character is also a drug addict, Bernstein used his score to highlight his cravings and comment on the character's torment. Overall, the score avoids the use of leitmotif in regard to the character, but emphasises, instead, the atmosphere for the film. John Lewis, the pianist-leader of the Modern jazz Quartet, was asked to score SAIT-ON JAMAIS (Vadim 1956).⁹⁵ For this film, Lewis used what is now called a 'cool-jazz' style, based on the happy-sad music used in New Orleans funerals. What is more, the three principle characters in the film were represented by a three-part fugue with the three voices (subjects) stated respectively by the vibraharp, bass and piano. Later that decade, in contrast to Lewis' style, Johnny Mandel and Duke Ellington wrote scores that featured big band jazz.⁹⁶ By the end of the fifties, jazz or jazz-influenced scores had pervaded film music significantly.

The introduction of the 7-inch, 45-rpm disc in the late 1940s marked a dramatic departure from the 78-rpm format and with it came an entirely new

⁹⁵ I am grateful to Mark Evans' book *Soundtrack: The Music of the Movies* (1979) for the following information, pages 126-127.

⁹⁶ They were I WANT TO LIVE (Wise 1958) and ANATOMY OF A MURDER (Preminger 1959) respectively.

form of music: rock'n'roll.⁹⁷ Emerging from elements of electric guitar blues, gospel and country music, this new style was quickly adopted by the further expansion of independent record companies. The coining of term 'rock'n'roll' came in 1951, when disc jockey Alan Freed showcased many of these new musicians on his late-night programme, "The Moon Dog Rock'n'Roll Party" after observing that now 'white' teenagers were buying music by 'black' musicians. The show flourished, providing the way for the first rock'n'roll song, 'Crazy Man Crazy', to enter the popular music chart, Billboard, in 1953.⁹⁸ Increasingly, young 'white' listeners began tuning into radio stations that featured this so-called 'Negro' dance music. Many found it as a means of rebelling against the older generation, or a way of embracing the 'soul' of a rejected culture. Accordingly, the lyrics found in many rock'n'roll songs contained direct references to teenage life. Building on this trend, rock'n'roll music gained further exposure when performers were featured on television programmes, such as Bandstand (later American Bandstand) and the Ed Sullivan Show.

The film industry also noticed this rise in youth culture and sought to benefit from it. In 1955 MGM released BLACKBOARD JUNGLE (Brooks), a film about the problems of juvenile delinquents in an inner-city school. The film not only capitalised on the behaviour and dress of 1950s teenagers, but it also used Bill Hailey and the Comet's "Rock Around the Clock" as title music. The song captured the mood of the time and soon after became an anthem for young people. Its success encouraged filmmakers to produce more films that promoted rock'n'roll; such as, DON'T KNOCK THE ROCK (Sears 1956), ROCK, ROCK, ROCK (Price 1956) and THE GIRL CAN'T HELP IT (Tashlin 1956). The last of these demonstrates an attempt to bring rock'n'roll to the mainstream

⁹⁷ Much of the following information on rock'n'roll can be found in Andre Millard's *America on record: A History of Recorded Sound* (1995) and John Mundy's *Popular Music on Screen: From Hollywood Musical to Music video* (1999).

⁹⁸ This song was sung by Bill Hailey, a former country and western singer.

by departing from a revue-type narrative and offering a plot similar to the Hollywood musical. Further capitalisation on this phenomenon manifests in the employment of singers as actors. Most of these films were promotional. They contained minimal plot structures and very little character development.⁹⁹ Notable among these is JAILHOUSE ROCK (Thorpe 1957), which featured Elvis Presley as a criminal in a rags-to-riches story choreographed in MGM-fashion. The film mirrors Presley's meteoric rise to fame and by doing so epitomises the acceptance of the subculture created by rock'n'roll.

The 1950s also saw the introduction of the first electronic score. Though initially established on the fringes of classical music, mechanically altered sounds had been evident in films since David Raskin's use of the Lenatone quaver in LAURA (Preminger 1944), Miklos Rozsa's scoring for theremin in SPELLBOUND (Hitchcock 1945) and elements of Edmund North's score for THE DAY THE EARTH STOOD STILL (Wise 1951). However, the first film to utilise electronic sounds as the content of an entire score was FORBIDDEN PLANET (Wilcox) in 1956. Prior to this film, Louis and Bebe Barron had experimented with the development of sounds produced by electronic circuits and used them in a series of short experimental films produced by Ian Hugo and Walter Lewisohn. They designed and constructed electronic circuits which, when properly controlled, would react predictably to various determined stimuli. These were then recorded and reproduced audibly. Following such a procedure, the Barrons created a score using what was called 'electronic tonalities' for FORBIDDEN PLANET. These unusual sounds were successful in communicating the unknown, and thereafter became

⁹⁹ These include KILL ME TOMORROW (Fisher and Searle 1955) which starred Tommy Steele, Pat Boone in BERNARDINE (Levin 1957) and Cliff Richard in SERIOUS CHANGE (Young 1959).

synonymous with science fiction and horror.¹⁰⁰ It also blurred the lines between sound effects and music.

Few composers at this time made use of technology to effect their music. Two exceptions can be found in work by George Duning and John Green.¹⁰¹ An element in Duning's score for *PICNIC* (Logan 1956) made notable use of re-recording. The director demanded that Duning superimpose his love theme on the popular song *Moonglow* that had already been earmarked for the scene. By arranging his strings to come in quietly and then rise above the rhythm section that was playing *Moonglow*, he enabled both pieces of music to be heard simultaneously. Its overall impact was noted by the Composers Guild of America in *Down Beat Magazine* as "the best original underscore for a non-musical film". Green employed technology to alter the sound quality of his music in Dmytryk's *RAINTREE COUNTRY* (1957). He amplified the reverb on a toy glockenspiel with brass tubes played alternately by two percussionists and then inserted the sound in the score to create a shimmering effect. The result gave the legendary tree in the title of the film a mysterious, otherworldly quality.

¹⁰⁰ Electronic scores can be heard in *KING LEAR* (McCullough 1953) and Ussachevsky's *NO EXIT* (1962).

¹⁰¹ I am grateful to Mark Evans' book *Soundtrack: The Music of the Movies* (1979) for the information in this paragraph.

Sound Effects Stylists Post-WWII to 1959

In spite of American innovations with magnetic sound, they generally ignored using it to create stylistic sound effects for their films. It was in this area that two French filmmakers, Robert Bresson and Jacques Tati, emerged as pioneers. Both filmmakers demonstrated that sound (or the absence of sound) could serve as a crucial element in the composition of a narrative. Bresson strove for dramatic significance in his soundtracks, while Tati endeavoured for comic charm. To achieve these ends, they took different approaches to sound. The entire soundtrack for all of Tati's films was constructed in post-production and the effects were discreetly placed to magnify specific places and objects throughout his filmic worlds. In contrast, Bresson often supplanted images with sound effects so that they could act as an integral part of the narrative, rather than as a supplement.

Robert Bresson's use of sound was informed by his overall approach to filmmaking. He viewed cinema as a means of expressing the ineffable rather than merely reproducing reality; in other words, he desired "to capture on film a trace of the essence of the human soul" (Gorlitz 2002). To achieve this, he removed anything he viewed as false or unnecessary. Thus, he reduced his films to the essentials needed to communicate this concept. By simplifying the narrative elements, every ingredient was subservient to this purpose. Consequently, Bresson rarely employed elaborate camera moves and preferred non-professional actors and minimal sets. He also eliminated any music, dialogue or sound effects that obscured the narrative or needlessly duplicated its images. The result provided the audience with a film that demanded they listen as well as watch.

By avoiding continuous synchronisation between the sounds and images, Bresson engages the imagination, allowing sound effects to take on greater significance. Hence, sound effects in his films are most often heard as if they are emanating from a source just outside of the frame. He explained his reasoning for it in this way:

Each time I can replace the image with a noise, I do so [because] the ear is profound, whereas the eye is frivolous, too easily satisfied. The ear is active, imaginative, whereas the eye is passive. When you hear a noise at night, instantly you imagine its cause. The sound of a train whistle conjures up the whole station. The eye can perceive only what is presented to it (Sontag 1964, p.62).

Bresson further encouraged this perception of sound by positioning effects so that they would imitate how humans naturally filter and select sounds. As people quite often choose to exclude superfluous sounds, Bresson employed individual effects amid 'silent' backgrounds to engender greater significance to his scenes.¹⁰² He fostered this subjective style by recording sounds separately and then positioning them accordingly (Gorlitz 2002). Thus, the aural elements offer greater depth to the settings, characters and situations by encouraging a degree of interactivity.

A notable example of Bresson's use of sound can be heard in his 1956 film, *UN CONDAMNÉ À MORT S'EST ÉCHAPPÉ* (A MAN ESCAPED). The film opens with Fontaine (Leterrier) attempting to flee from a car in which he is being held prisoner. During this sequence, the camera remains fixed on the car and the escape is heard solely through a series of noises: whistles, running and shouting. When he is returned to the car, he is back in shot, and sound and image resume working together. As Fontaine is confined to his cell for nearly the entire film, the audience perceives sounds as he experiences them. The absence or presence of noise dictates whether it is safe for him to continue

¹⁰² Examples include in *DIARY OF A COUNTRY PRIEST* (1950), where the raking of leaves punctuates the cure's conversation with the countess, and in *A MAN ESCAPED* (1956), where sounds outside the prison are the main character's only link to the world.

his attempts to escape. For example, the silence of the neighbouring prisoner or the approaching footsteps of prison guards warn him of possible danger. Additionally, from outside his window, Fontaine hears machine gun fire in the yard and he (and the audience) knows other prisoners have been shot. Bresson also uses the 'offscreen' sound of a passing train to mask the moment when Fontaine chooses to kill one of the prison guards. The general fragmentation of the soundtrack grants the film a strong impression of reality because it highlights the tension of the narrative as well as symbolises the isolation of the prisoners.

In contrast to Bresson, Tati created films that were designed to be observed and listened to from a distance. He invited no identification except that of a visitor to an alien world, much like the character he represented himself (Mr. Hulot) in most of his films. The audience experiencing a Tati film were set outside it, to absorb the detail and to become fascinated by their comic precision. Tati's films tended to exaggerate the commonplace or ridiculed the efforts of the modern world. He would often use the sounds of overstated or anempathetic noises in place of those that one would commonly expect. The incongruous result was the essence of his humour. In fact, Tati came to rely heavily on ambient sounds and rarely if ever used dialogue to convey his humour.

Tati's filmmaking style came to public attention in 1948 with the release of *JOUR DE FETE*. It serves as a rough sketch of most of the ideas Tati would flesh out in later features, especially in terms of sound. At the beginning of the film, Tati, in the role of François the postal worker, enters the narrative by trying to dodge an 'invisible' bee while cycling into town. The bee's buzz dominates the scene. Simultaneously, a hay mower desperately tries to decode François' hectic zigzag movements until the same bee sets upon him.

In another scene, Tati overtly demonstrates the juxtaposition of sound and image by having a carnival worker and a villager lip-sync the dialogue from an American western playing in an adjacent tent. The mismatch results in a hilarious pantomime of flirtation.

In 1953 Tati introduced the character Mr Hulot in the film *LES VACANCES DE M. HULOT*. Its loose narrative is linked together mainly by a series of comic set pieces and well-constructed gags. Hulot himself is bumbling and nearly mute, relying heavily on slapstick to create humorous situations. However, the film is also full of aural contradictions where sounds comically challenge expectations. An example can be heard each time the door to the dining room in the hotel is opened and closed; its movement is expressed with an incongruous twang. Elsewhere in the film, Tati shifts attention between Mr Hulot and the guests by foregrounding and alternatively backgrounding the sound of Mr. Hulot playing table tennis. The presence and absence of the sound of the ping-pong ball enables Tati to guide the audience's expectations and perception in these scenes. Mr. Hulot emerges again in Jacques Tati's *MON ONCLE* (1958), where he is presented as an anachronistic character in an ultra-modern world. Tati exaggerates the sounds produced by every new gadget and convenience in his sister and brother-in-law's home and workplace.¹⁰³ Additionally, he heightens the *clip-clop* of every footstep of those who enter their home as well as the subtle shifting of his sister's plastic morning dress. The end product of such a use of sound is not only that of a comic film, but one that challenges the benefits of progress.

These early works of Jacques Tati and Robert Bresson advanced the creative use of sound effects considerably. Their idiosyncratic approaches to filmmaking allowed aural ingredients to have significance independent of the

¹⁰³ Chief among these sounds are those produced by the metallic fish fountain in their garden, the plastic tube making machine at his brother-in-law's factory and his sister's kitchen appliances.

images. They not only made filmmakers and audiences more aware of the presence of sound, but they also provided opportunities for them to appreciate the added value it could bring to a narrative. As a result, Tati and Bresson's willingness to exceed the conventional thinking of film sound challenged the notions of many of their contemporaries and brought inspirational techniques to the future of film production.

Overall, the introduction of magnetic sound recording and reproduction to the American film industry initiated a new era in sound filmmaking. It offered a new standard of quality, not achieved by previous technology. Magnetic film recording encouraged greater freedom in film production and the development of a variety of elaborate sound systems. The timing of these developments enabled Hollywood studios to compete with the burgeoning television and record industries. This period of cinema history also saw the application of non-classical scores that emerged along with the rise of youth culture. However, in spite of the high fidelity offered by magnetic technology, very few American filmmakers used magnetic sound beyond the mere aural replication of images on the screen. Stylistic uses of effects were once again championed in Europe. Those that used music inventively highlighted the value of aural ingredients within the narrative, but mainly for commercial purposes. Above all, the sound engineers' main task continued to be the creation of crisp, clear dialogue. However, despite the technical and economic 'failure' of magnetic film sound, it offered the next generation of filmmakers a broader view of the potential of aural ingredients.

THE FIRST BIG WAVE IN STYLISTIC SOUND: 1960-1971

As mentioned in the previous section, the transition from the 1950s to the 1960s marked a radical change in filmmaking styles, mostly encouraged by competing industries. In addition to this, the American studio system had all but disappeared, along with the restrictions it had imposed on its talent. Technology was still in constant development, having achieved greater fidelity through the advent of magnetic film and multi-channel sound. The threat of the Cold War (as well as concerns about the conflict in Vietnam) and the ghost of McCarthy were giving greater fuel to cynicism. Darker themes became more common. All of which provided a foundation for filmmakers to explore more creatively with film ingredients.

Immediately following this period, sound effects, music and dialogue were given more prominence and were employed in more inventive ways. Improvements in cinema loudspeakers also allowed for much wider dynamics, which facilitated greater subtleties. Consequently, filmmakers began utilising aural ingredients to engage and sometimes challenge the audience. These stylistic uses of sound have left a lasting impression on film production and many serve as reference points for future filmmakers.

Hitchcock's Horror and Other Sonic Chillers

The 1960s began with several atmospheric horror films that were significantly enhanced by either sound effects or music. Two of the most well known films were directed by Alfred Hitchcock. Throughout Hitchcock's career he demonstrated an acute awareness of the soundtrack.¹⁰⁴ Weis (1978, p.3) explained that Hitchcock's interest was to make noise, music and dialogue an integral part of the narrative; their essential role was to increase audience involvement. The importance of aural ingredients was also noted in his production method. Hitchcock told Truffaut (1967, p.224):

After a picture is cut, I dictate what amounts to a real sound script to a secretary [...] We run every reel off and I indicate all the places where sound should be heard.

At the height of his fame, Alfred Hitchcock released *PSYCHO* (1960) and later *THE BIRDS* (1963). Both films were predicated on sound and its ability to engage the audience.

The efficacy of the score for *PSYCHO* can be noted by the fact that it has now become indelibly linked to the film. Bernard Herrmann considered his music so pertinent to the film that he entitled his score 'PSYCHO: A Narrative for Orchestra' (Brophy 1985-87a). The music consists of motifs that are either repeated or reconfigured to yield emotion. By establishing repetitive musical gestures that are often subtly changed, Herrmann gives the film an overall sense of unpredictability. A majority of the score is made up of fragmented melodies that highlight the exterior or interior elements of the narrative. In addition, Herrmann's score draws attention away from film techniques, such as the faulty dissolves in the establishing shots at the beginning of the

¹⁰⁴ This is despite the well-known story of when Hitchcock could not conceive of an orchestra being used for his film *LIFEBOAT* (1943) because he could not imagine music playing in the midst of the open sea. It is said that when he asked where the orchestra would be, the reply was given: next to the camera.

film.¹⁰⁵ These layers of significance seem to complement the complexity of the title character.

The music for the opening credits initiates the themes that will be heard throughout the film (in some form or other). Herrmann's violins burst onto the screen like frantic cuts in the celluloid. The breakneck pacing and the repetition of the music mirrors the rapid slicing of the words used in the credit sequence. All of this not only communicate the violence to come, but also the film's desperation and confusion. Brophy (1985-87c) reckons it also connotes a feeling of being thrown forwards somewhere, which allows the audience to be pulled along with the narrative. Having established this theme, Herrmann has prepared the audience for when it is recalled or heard in one of its variations.

One recurrence of this theme is when Marion (Leigh) is leaving in her car after having stolen \$40,000 from her employer. It clearly marks Marion's anxiety for it does not emerge until she is observed by her boss. It is subsequently heard after she speaks to the police officer and then again after she leaves the used car lot. By externalising her disturbed emotional state, the score invites the audience to share in her desperation and her unpredictable future. What is more, this theme only occurs when the car is in motion, further emphasising the fact that she and the audience are being led somewhere. The sense of guilt (or paranoia) is further emphasised through the use of voice-over recollections (i.e. exact repetition of previous lines), which Marion hears as she is driving. In fact, these recollections transform into mental predictions of what her boss will do when he realises what has happened. These sequences are contrasted by a more subdued variant of the title music which occurs when she is packing her suitcase, while she is in the

¹⁰⁵ This can be heard when the camera pans across the rooftops of Phoenix, Arizona. Hitchcock also employed intertitles to further mask the jumps (they declare the time and place of the action).

toilet at the used car lot and when she is unpacking her suitcase at the Bate's Hotel. Here the dark, minor keys of the score sound melancholic; perhaps suggesting moments of serious thought about her actions. Both sequences involve her privately handling the money (the reason for her actions); thus, the music may also be communicating a sense of culpability.

Prior to the now infamous shower scene, Norman Bates (Perkins) is speaking to Marion in his sitting room. At one point in the conversation Marion suggests that Norman should consider putting his mother in an institution. As Norman aggressively responds to this advice, Herrmann's music accelerates, initially using two melodies that respectively descend and ascend. Both melodic lines fade as Norman laughs and regains his composure. Brophy (ibid.) stated that the score here hints strongly at Norman's dual personality and its resolution infers that in this instance he was able to control himself. The shower scene itself begins with the white noise of the running shower. However, its sudden (albeit inconspicuous) disappearance during the actual murder heightens the awareness of other sounds in the sequence. Following an accentuated rip, as the shower curtain is torn from its ringlets, forceful high-pitched violins beat to the rhythm of the knife stabs, mirroring Marion's screams and internal pulse. The violence evoked by this music is further enhanced by the synchronised noise of the blade penetrating her flesh. However, the gruesomeness of this act is actually only suggested. The scene, cut together with several shots, is dependent on the sounds to provoke the audience's imagination and ensure its plausibility. Additionally, Weis (1985, p.304) claims that the screams, mixed with the screeches from the violins, evoke identification between the audience and victim on the screen.

The remainder of the film music tends to be a repetition of those earlier themes. During Arbogast's (Balsam) search for Marion we hear the music

that signalled Marion's desperation while driving out of Phoenix, and at his murder, the 'shower scene' music is revisited (though slightly faster to mirror the sudden attack). When Lila (Miles) and Sam (Gavin) arrive at the hotel, a slower and stripped-down version of the title music plays as Lila climbs the steps to Bates' house. This sequence culminates with Lila's discovery of 'Mrs. Bates' in the cellar. Her scream is quickly followed by the 'shower scene' music as Norman bursts through the door, wearing his mother's dress and a wig. As he is stopped from attacking her, this music not only signifies his intent, but also helps the audience to reinterpret the previous murders. Upon the revelation that it is Norman (and not his mother), the theme spirals chaotically, as opposed to the previous instances when it had gradually resolved. This difference serves to highlight the horror of Norman's psychotic nature.

PSYCHO also attempts to arouse the audience's curiosity by using an acousmatic voice. In several short sequences in the film, Norman is heard having conversations with his mother. A device clearly used to persuade the audience of her physical existence, especially since 'she' is only seen briefly (and discreetly) before the final revelation. In the scene where Norman is caught, he enters brandishing a knife and speaking in his mother's voice as if to leave no doubt of its source. Subsequently, when he is sitting in a police cell his mother's voice is heard over two melodies that rise and fall simultaneously. His mouth does not move, communicating that these words are actually his thoughts. This lack of synchronisation (along with the music) declares overtly which side of his split personality was now dominating him. Belton (1985, p.65) adds that the "image and sound here produce a tenuous, almost schizophrenic 'synchronization' of character and voice". It precisely articulates the traits described by the psychiatrist in the previous scene. By

doing so, the audience is given a subjective experience of what it is like to be mad.

In contrast, *THE BIRDS* is a film about abstract fear. It is dominated by highly stylised sound effects and silence. There is no scored music for the film; instead the title sequence and subsequent scenes are endowed with 'real' bird noises and electronically created sounds. Thus, in essence, sound effects fulfill the functions normally allocated to music in films. To accomplish this, Remmi Gassman and Oskar Sala were employed to generate the electronic tonalities, while Bernard Herrmann served as what they called a sound consultant. The overall sound design relied on the ambiguity of these 'new' noises to cultivate an unpredictable threat. The grafting of unnatural sounds onto natural ones allowed Hitchcock to give the birds an 'alien' quality. As a result, he produced a menace without logic or reason.

The titles and opening sequence of the film epitomise this mixture of artificial and realistic noises. Electronic bird noises function as an overture of what is to come, both musically and thematically. By offering the audience such a stylised abstraction from the very beginning, the film helps them to develop a new mental association for a creature not commonly known for its viciousness; thus enabling an unforeseeable terror to become more believable. This main title sequence dissolves into a cityscape and subsequently, a pet shop. The sounds in the shop are naturalistic and in no way communicate a threat. However, the cacophony of birds in the pet shop serves as a reminder of their presence and their ultimate domination of the film.

When Melanie (Hedren) is attacked, the presence of the bird is marked by a mixture of natural and unnatural sounds. Subsequent attacks use this

blending of noises, but vary in how they are initiated. The gull that pecked Melanie comes suddenly, without warning and disappears just as quickly. At the children's party the screams of fun transform into squeals of fear as gulls savage them. Another instance that involves children occurs at the schoolhouse. However, the build up to this attack is slow and methodical. Out of view we hear the children singing a repetitive song, where one verse develops into the next each time it is sung. Almost as if responding to each change of phrase, crows begin to appear in slowly increasing numbers outside the school. The repetition of the song helps generate the suspense, for this time the crows are silent.¹⁰⁶ The onslaught that follows is callous and sadistic. Later, outside a petrol station, birds trigger a series of events that lead to a massive explosion. During this sequence, the sound of the flowing petrol and shouts of people are significantly heightened, drowning out Melanie's scream. The sequence ends with an overhead shot (a bird's eye-view) looking down on the devastation; a calm that is quickly interrupted by the terrifying screams below.

Having established the unnatural screeches to represent the impending threat, Hitchcock elsewhere uses silence (or near silence) to unsettle the audience. This is never more effective than in some of the scenes near the end of the film. A massive assault on Mitch's (Taylor) house is predicated on an unnerving silence that precedes it. The sounds that follow are deafening and totally unnatural. They drown out any audible communication. The end of their struggle is solely identified by a significant decrease in noise level. In another scene Melanie goes upstairs and gets trapped in the attic. However, the birds do not screech; we only hear the natural sounds of wings flapping. Weis (1978, p.12) quoted Hitchcock saying:

¹⁰⁶ The singing is clearly out of sync with the visuals, proving it must have been a conscious decision to alter the film in this way.

I took the dramatic license of not having the birds scream at all [...] What I wanted to get in that is as if the birds were telling Melanie, 'Now we've got you where we want you. We don't have to scream in triumph or in anger. This is going to be a silent murder'.

Weis' concluded that their silence was a sign of their control of the situation (ibid., p.12). The final scene demonstrates this fully. Mitch opens the door to find masses of birds assembled outside. They make no sound, except for a nearly imperceptible low hum. Hitchcock explained that he wanted:

a strange, artificial sound, which in the language of birds might be saying, 'We're not ready to attack you yet, but we're getting ready. We're like an engine that's purring and we may start off at any moment' (ibid, p.12).

The ominous near-silence helps heighten the unpredictability of the scene, which in turn generates a greater sense of fear.

In addition to these Hitchcock's films, the late 1950s and early 1960s saw the release of several 'smaller' features that amplified horror through aural ambience. Chief among them are *LES YEUX SANS VISAGE/EYES WITHOUT A FACE* (Franju 1959), *THE INNOCENTS* (Clayton 1961) and *THE HAUNTING* (Wise 1963). All of these films relied heavily on aural ingredients to suggest a hidden threat; much like Val Lewton had done two decades earlier in films such as *CAT PEOPLE* (1942). However, unlike Lewton these filmmakers had the advantage of clean, multi-channel sound. Thus, they could generate fearful tension through much quieter sequences of silence contrasted by sudden noises.¹⁰⁷ They also benefited from the spatial orientation that stereo sound provided. Early monaural sound denied any authentic point of audition, forcing filmmakers to cue or highlight the source of any acousmatic sound for the audience. Stereo, which simulated natural hearing, allowed them to position sound effects in a film without an immediate visual referent. What is more, this spatial aspect increased the distinctive quality of different sounds,

¹⁰⁷ A practice that draws on the natural human sensitivity to changes in volume; that is, we adjust our ears to the sound, so any sudden changes would cause us to jump.

allowing for greater identification of individual noises. The above films (as well as most future examples of the horror tradition) capitalised on these prospects to frighten their audiences.

Having come from a documentary background, French filmmaker Georges Franju grants his film a high degree of naturalism; however, it is also simultaneously hyperreal. It is by balancing these two conflicting factors that *EYES WITHOUT A FACE* maintains a level of believability. What is more, Franju communicates his narrative using what appear to be untreated sound effects. The noises emerge sparsely among little to no background noise, granting each scene a 'silent' unease. Footsteps, the ring of telephones, doors opening and closing are all heard as if in a vacuum. The surgery scene is expressed in a matter-of-fact way, where only the sound of the doctor's requests and his breathing can be heard. This naturalistic/hyperrealistic approach greatly enhances the repugnance of his actions. Furthermore, Franju employs audio delays as a narrative device. Dogs are heard barking within the house on several occasions, but their physical existence is not displayed until the mid-point of the film. Initially the animals seem nothing more than pets, or perhaps guard dogs. It is later revealed that they are subjects for the doctor's experiments. These ominous barks reach their potential when the dogs kill the doctor at the end of the film. However, the most significant delayed revelation is employed to hide Christine's (Scob) disfigurement. Apart from showing her face in one momentary blur and her temporary 'replacement' face, she is only seen wearing a mask or through camera shots of the back of her head. Allowing her voice to be heard as 'normal', Franju is able to generate pathos mixed with morbid curiosity.

The sounds in *THE INNOCENTS*, directed by British filmmaker Jack Clayton, aurally illustrate how the supernatural can disrupt the natural. It does so

mainly through the mingling of diegetic and nondiegetic elements in order to suggest a subjective view of external forces. From the onset of the film, it is filled with the noises of the outdoors, namely: birds, wind, rain and insects.¹⁰⁸ On several occasions throughout the film, these noises stop suddenly or are distorted by the underscoring of electronic tones; all of which announce the presence of something otherworldly. One example is in the middle of the film where Miss Gibbons (Kerr) is picking flowers in the garden and on the soundtrack we hear a child singing and the sound of birds. Without warning these sounds cease. The 'silence' is presently imbued with the swish of Miss Gibbons' dress and then as she looks up to see a man in a tower, electronic tones emerge, only to be replaced with the sudden re-emergence of the full soundtrack. One would reckon this oneiric use of sound not only marks a subjective experience for Miss Gibbons, but also engages the audience to share in it.¹⁰⁹ It occurs again when Miss Gibbons is playing hide and seek with the children. She looks behind a curtain and the soundtrack cuts out as the ghostly figure of the same man unexpectedly appears in the window moving towards her. The sounds only resume when she turns away. The film also features a nightmare sequence, where a montage of images is coupled with a montage of sounds (i.e. overlapping voices, isolated voices, electronically modulated voices and a distorted music box). This relatively untried technique (in an English-speaking film) again permits the audience to participate in the horrific tortures she is experiencing. It is this level of interactivity that infuses this film with a much more sinister atmosphere.

The scare tactics in *THE HAUNTING*, the only American film of these three examples, are entirely dependent on aural ingredients fusing with the

¹⁰⁸ The film begins with a black screen and the voice of one of the child singing. This soon fades and is replaced by musical score that is laced with the sound of birds and a woman in shot crying and speaking under her breath.

¹⁰⁹ In the film the audience is only given Miss Gibbons' point of view and the film ends with a question over her interpretation of the events. Consequently, the audience is also forced to draw their own conclusions.

audience's imagination. In addition to music and dialogue, director Robert Wise makes use of noises that are neither explained nor visually revealed throughout the entire film. Humphrey Searle's dark, dissonant music introduces the film, followed by a voiced prologue that recounts the horrific past of Hell House. During the prologue each sudden death, shot in extreme close ups and oblique angles, is matched by an array of random, overlapping brass instruments. These atonal 'noises' complement the overtly unsettling, disorientating nature of the film; all of which immediately grants the subsequent narrative a tremendous sense of the macabre and foreboding.²⁰⁰ The night of the first 'visitation' is marked by explosive bangs. Wise allows the first series to fade in slowly until a violent camera zoom in on the door is matched with a canon-like boom. However, this fades away and the 'silence' is filled with panicky conversation. When all seems well, an even louder set of bangs shatters the 'calm'; this is also coupled with wicked-sounding laughter. Again, the bangs fade but quickly they resume once again at a deafening level, cut to the rapid edits and multiple camera angles. It is this pattern of contrasting silence to loudness with oblique images and/or rapid zooms that Wise cultivates through the whole film. In the second 'visitation' the camera merely focuses on a wall, and the silence is broken by a man's mumbling voice and a child's laughter. The sounds are relatively quiet until the child begins screaming. Between this transition Eleanor (Harris) thinks aloud in the form of a voice-over underscored by a string-based tremolo.²⁰¹ The third and final 'visitation' is heard as whirlwind of bangs, knocks and clatters are overlapped by other noises. At one point the wood of a door warps and the sound of it cracking is foregrounded, giving the visual greater menace; while Eleanor is running down the corridor a tremendous hiss is heard; and the creak of a turning doorknob is exaggerated. In addition to these noises,

²⁰⁰ In fact, an identical music cue is used later to suggest Eleanor's (Harris) death. As she is the one that most resembles (in character) those that had previously died at Hell House, it not only connects her to them but also foreshadows her sudden demise.

²⁰¹ This, in fact, happens throughout the film and is often mixed louder than the background noise.

musical stings are used to mark emotive lines of dialogue and jump cuts to images (e.g. statues and pictures of the devil). The film ends with the total disembodiment of Eleanor's voice; her death and her union with the supernatural world are announced through a voice-over that has no matching imagery.

Foregrounding Film Sound as an Artistic Expression: Jean-Luc Godard

Simultaneously with the release of sonic chillers, the public awareness and appreciation of sound quality was greatly increasing. The rapid rise in youth culture in the late 1950s had led to a greater demand for music and new and improved radio technology.²⁰² As stated in footnote 91, America established the world standard for stereo records in 1958 and in 1961 the United States' Federal Communications Commission ruled in favour of adopting the GE/Zenith FM stereo system.²⁰³ Within a year, there were 87 FM stations in North America (two in New York alone). The high fidelity it generated quickly made AM's monaural sound somewhat outdated and unfashionable. In turn this stimulated a new generation of home sound systems. Thus, by the mid-sixties the availability of high-fidelity stereo components had made the public increasingly accustomed to its superior quality. Further public awareness of sound and sound technology came in the form of Philips magnetic audiocassette, introduced in 1965. This enabled individuals to record and playback on small portable machines. By the late 1960s the power of sound and sound quality was in the forefront of public perception. However, despite these advances, none was applied to filmmaking until the 1970s.

During the sixties the biggest radical movement towards sound-image integration once again came out of France. It emerged in and through the work of Jean-Luc Godard. Godard challenged many of the perceptions of the nature of film through his disregard for established conventions. He especially rejected the classic tradition of how storylines were presented and developed; in fact, in many of his films, the narrative was virtually nonexistent. This 'defiance' was inspired by the film culture that had emerged in France just after World War Two. At that time, most of the leading figures

²⁰² I am indebted to Schoenherr (2001b) for the information in this paragraph.

²⁰³ This was long overdue, as an alternate system had been invented by Edwin Armstrong in 1939, but never used commercially.

of the Parisian intelligentsia had a fascination with film, and this inspired forums and debates over its purpose and place in society. This interest ultimately led to the creation of *Cahiers du Cinéma*, a journal that provided, among other things, a public arena for analysing the content of mainly American films that had been withheld during the war. Godard began writing for *Cahiers du Cinéma* in the early 1950s. In his criticisms he set poets, painters and playwrights alongside filmmakers in an attempt to establish the origin of film and to widen the definition of art; he also used puns and paradoxes regularly to combine disparate ideas and unlikely topics (Nowell-Smith 2001, p.4). Writing about film quickly led to making films, and the relative banality of the state of French cinema at the time made the situation ripe for experimentation. Armed with his knowledge, intellect and artistry, Godard began a campaign to take film beyond its current sensibilities.

Building on the creativity of Bresson and Tati, Jean-Luc Godard's realisation of film sound also went beyond the conventions established in America and Europe. As his films moved away from the accepted norm, his narratives lost unity and digressions became the dominant feature. Godard's approach to sound was equally divergent. He treated the editing of aural ingredients in the same way one would treat the editing of pictures: that is, music, effects and dialogue were cut and assembled in their own right separate from the images. Often he would delay or deny a sound source and his music cues would frequently stop and start suddenly. Godard especially favoured the use of dialogue as a sound effect and he regularly departed from convention by making it quieter than other elements in the final mix. As a result, sounds were allowed their own significance and audiences of his films were forced to appreciate them differently. To this day, he has continued to demonstrate how music, effects and dialogue can influence the narrative, especially when used in a discordant manner.

UNE FEMME EST UNE FEMME/A WOMAN IS A WOMAN (1961), Godard's third full-length feature, contains most if not all of the aural ingredients that he would exploit in future films. Michel Legrand's score is sliced into short bursts of eclectic music that emerge and disappear suddenly. Despite their brashness, these cues never jar the flow of the narrative; they are merely overt and draw attention to themselves. It is possible that Godard had purposely conceived it in this way to flout the tradition of effacing the work music does in a film. The music also appears to be alternately parodying the tragic and the humorous content of the actions of the characters and the soap-opera-like dialogue.²⁰⁴ To do so, Godard draws on cues well-established in earlier film forms, mocking their 'normal' associations. In particular scenes, the music subverts other conventions by completely denying the audience the visual source. For example, when the camera pans across barren walls inside the flat of the main characters, we only hear their voices and a highly dramatic music cue. In another scene, Alfred (Belmondo) is speaking to a hotel owner about some money he owes him. The volume of music is played so loudly that it drowns out their conversation so that the content is unintelligible, denying dialogue its central place on the soundtrack.²⁰⁵ Near the end of the film, Alfred and Angela (Karina) are in a café and the soundtrack music changes three times while the camera is fixed on them. It is unclear whether this music is diegetic or nondiegetic, as no visual source is given. Nonetheless, the third cue is summoned by Alfred putting a song on the jukebox, and as this music is of the same quality as the first two it is

²⁰⁴ In fact, twice in the film a character asks reflexively if this film is a tragedy or a comedy.

²⁰⁵ This is also repeated later when the two main characters are cleaning their teeth and talking at the same time. However, the full impact of such a technique is lost to foreign (non-French speaking) filmgoers, as this dialogue is clarified by subtitles.

possible that they had also been heard from the jukebox.²⁰⁶ However, it is still ambiguous.

Godard's use of sound effects in *UNE FEMME EST UNE FEMME* corresponds with the comedy film tradition, but within the context of this unusual film, they gain new significance. As with the music cues, selected noises in the film are conspicuously drawn out for the audience's attention. While in the flat, Emile (Brialy) sweeps the floor in time to a sports commentary emitting from a radio that he had switched. Later, in one of the early scenes in the cabaret, the sound of howling monkeys is added to a group of men laughing. This effect manifests as a short burst of sound, as both noises cease almost instantly after they emerge. Another overt effect occurs when Angela asks her friend which film she had seen. As her friend mimes the actions of fingering a piano and shooting a gun, we hear the corresponding noises on the soundtrack.²⁰⁷ In the café scene mentioned above there is also a notable sound effects cue. Alfred runs out into the street and bangs his head against the wall, during which the camera speeds up rapidly and the sound of a cash till opening is heard, with a bell marking the moment his head makes contact.

The most radical use of sound for Godard in this film is his use of dialogue. However, *UNE FEMME EST UNE FEMME* only hinted at the experimentation that would come in later films. In *UNE FEMME EST UNE FEMME* there are instances where characters intentionally speak directly to camera. These asides normally mirror script extracts or stage directions (e.g. "Exit Angela" or "We must bow to the audience first"). In another scene, Alfred reads aloud from a book, as if to externalise the philosophical view of the text. It does not

²⁰⁶ In addition, the content of this song is unromantic, where the expectation would have been the reverse for this highly flirtatious scene. However, the audience soon after discovers Alfred has shown Angela a photo of her unfaithful boyfriend/husband. Thus, the music moves from straight humour to parody.

²⁰⁷ This is also an unabashed reference to *TIREZ SUR LE PIANISTE* /SHOOT THE PIANIST (1960), a film by Truffaut, Godard's colleague and co-conspirator from *Cahiers du Cinéma*.

appear to be the actor's thoughts, but those of the filmmakers; thus, broadening the overall context of the film. In the café scene Alfred and Angela's conversation is interrupted by two 'stereophonic' voices heard out of view. It not until they finish their plea for money that it is revealed that they are two blind beggars. This delay in matching the sound and image serves as a powerful precursor of his later work in that its realisation is temporarily a product of the imagination.

All of these aural ingredients culminate in Godard's 1967 film WEEKEND.²⁰⁸ Its threadbare narrative consists of a series of 'events' that subvert the illusory nature of film by allowing the audience to detect 'the work' involved in the construction of each scene. This rebellion echoes Godard's political and social views that saturate the entire work. Central to the film is a scene where a traffic jam is visually expressed through an endless stream of cars that display every facet of bourgeois life. The camera tracks along with the main characters as they force their way pass the other cars. As they push through what seems to be a never-ending queue, a cacophony of incessant car revs and horn blasts is punctuated by a continuous stream of incoherent yelling and children singing. The sequence continues for over seven minutes and only ends when dramatic music cues mark the sight of flames, bleeding bodies and crashed cars; all of which the characters completely ignore. Cook and Bernink (1999, p.308) state that the film presents Godard's "total disillusionment with French society", which he conceives to be a "monolithically bourgeois, brutalised by its own consumer society". Thus, it would appear that the iconic symbol he uses to characterise this progression to nowhere is the car and the noise of the horn would signify his annoyance.

²⁰⁸ Naturally, Godard has continued to develop his filmmaking concepts to this day, but this film seems to suggest a point when all of his early stylistic approaches were pushed to the extreme.

Appropriately, these noises announce the opening of the film. A loud car tyre screech and car horns hooting are the first sounds to be heard. Coupled with the violent actions of both parties involved, the message of frustration, offence and destruction is clearly communicated. This sequence is subsequently linked to a psychiatric session, where Corinne (Darc), clad only in her underwear and brassiere, describes in vulgar detail a sexual encounter that she may (or may not) have actually experienced.²⁰⁹ However, the overpowering volume of dissonant music that ebbs and flows through the scene mutes her spoken words. By doing this, Godard continues his subversion of the traditional use of music to underscore dialogue, but he also teases the audience by cloaking the more lascivious sections of her story.²¹⁰ Following this, car noises resume when Corinne and Roland (Yanne) stop to make a phone call in a small village. As they park, a loud crash is heard out of view and it is only after several minutes have passed that the camera cuts away to reveal a dead body in a car smashed up against a tractor. This protracted delay makes the revelation all the more horrific. Once again the characters are oblivious to the entire event. Added to this are the voices of a young woman and a middle-aged man arguing loudly. Initially their voices are visually matched with the dead body and close ups of various onlookers. The talk is volatile, comprising mainly of the woman debasing the man's lower-class status. By delaying the revelation of the actual speakers, Godard objectifies the dialogue, making it applicable to a much wider audience.

The film then becomes dominated by the use of the human voice to express political or philosophical rhetoric. After crashing their own car, Corinne and Roland are walking across a field where an actor, dressed in historical costume, is reciting words from a book. His words are a desperate plea for freedom and equality, but they ignore him completely. Near the end of this

²⁰⁹ She is asked if it was 'a nightmare or reality' and she replies that she does not know.

²¹⁰ However, this is only made apparent through subtitles.

short sequence, he addresses his lines directly to the camera as if to persuade the audience to take action. In a later scene, one 'black' man and one Arab announce that the other will speak on their behalf. However, the camera does not move to the other character, but remains fixed on the one who made the announcement. The asynchronous match jars with 'reality' and, since their talk is spoken directly to camera, it forces attention on the dialogue itself rather than the character speaking it. The scene is intercut with shots of Corinne and Roland sitting nearby, who show no interest. Godard again is evoking political statements (this time in terms of race); he is attempting to bring awareness to an indifferent bourgeois both in and out of the film. The final statement of the film begins with a monologue from one of Godard's Marxist rebels. The camera follows him as he walks through the woods until another rebel enters the frame, at which point the camera joins her and the rhetoric becomes voice-over. Reaching its crescendo, the camera zooms slowly across an adjacent lake and into the sky. In doing so, it projects some kind of omniscience and universality on the words spoken.

Elsewhere the human voice and music serve to contradict logic or produce nonsensical humour. Twice in the film incidental characters sing a cappella, once for humour and once for pathos. A man on the telephone is heard singing quite merrily in an attempt to woo the person on the line. Its cheery melody not only contrasts with the noisy outbursts in previous scenes, but also mocks the light-heartedness of the French musical tradition. The dark humour is soon quenched by Corinne and Roland's attempt to steal the man's car. Near the end of the film, a Marxist rebel is shot and as she dies she sings a mournful tune. Its sadness is clear, but the fact that it emerges from nowhere also expresses the irrational. In another scene, diegetic music is heard, but its origin is hidden for a long period before its source is revealed.

After an intertitle marked: *Action Musicale*,²¹¹ classical music is heard. The camera moves around slowly in a large circle for several minutes, until a grand piano, played by a member of the bourgeois, comes into view. However, the camera does not stay with the character as expected, but moves away and circles the yard again. Other actors in this sequence are either motionless or barely mobile, which seems to be making a mockery of the intertitle. A musician is also revealed as the source of music in a later part of the film. Drums are heard in the woods; the playing sounds like that of an amateur. However, Godard may be using this 'free' form of musical expression in contrast with the previously mentioned scene. Thus, it could rightly serve as another symbol of the political content of the film. Lastly, in one of the most profound moments of the film, Roland asks a passing driver for a lift in the form of this question, "Are you in a film or reality?" and the driver answers, "In a film" to which Roland expresses disgust. The confusion inherent in such a question (though absurd) directly comments on the nature of film, which ultimately comments on human perception and our understanding of what is real and what is not. As such, it epitomises Godard's view of filmmaking.

²¹¹ Throughout the film Godard inserts intertitles to announce or comment on sections of the film. Sound often serves as a link between these sections.

The Re-contextualisation of Music: Stanley Kubrick

In spite of the inventive use of sound in the sonic chillers and Godard's aural experiments, few filmmakers made use of them to heighten the awareness of music and technology until the advent of Dolby stereo. One notable exception was the director, Stanley Kubrick. During the 1960s and early 1970s Kubrick drew on well-known pieces of music, but subverted or redefined their traditional associations. In 1964 he released DR. STRANGELOVE OR: HOW I LEARNED TO STOP WORRYING AND LOVE THE BOMB. The narrative was a biting satire that mocked humankind's potential to destroy itself through war. For the final sequence, Kubrick used *We'll Meet Again* performed by Vera Lynn, a singer renowned for being a morale booster during World War Two. As the end of the film consists of a montage of nuclear explosions that will ultimately bring about the entire devastation of the Earth, Lynn's song takes on an ironic quality.²¹² This technique of re-contextualising familiar pieces of music is driven to a greater extreme in his next two films.

In the score for 2001: A SPACE ODYSSEY (1968) Stanley Kubrick made use of many pieces of pre-existing classical music.²¹³ Kubrick's desire for temp tracks not only pervaded the film while in production, but also became the music to complete the final score. This was even clearer at the writing stage. Lobrutto (1999, p.282-283) stated that Kubrick played various forms of

²¹² Strangely, the use of this song in this film gave Vera Lynn good publicity and brought her back to popularity (Lobrutto 1999, p.247).

²¹³ Kubrick had considered many composers for the score and at one point had hired Alex North, with whom he had worked previously. According to North (Agel 1970, p.198-199) he was invited to London to discuss the music with Kubrick, who was direct and honest about retaining some the temp tracks he had been using during the film's many years of production. He was unhappy interpolating music from other composers, but agreed to do so providing he could put a contemporary feel to them. As the film consisted of extensive special effects, North was not able to view the film while he wrote; all his interpretation were based on lengthy conversations with Kubrick. After an extremely stressful two weeks, North produced over forty minutes of music and waited for Kubrick's response. Kubrick initially made some suggestions, but soon afterwards told North that no more music was necessary. It was not until North attended a screening in New York that he discovered that none of his score had been used.

musique concrète,²¹⁴ electronic music and *Carmen Burana* during this period to influence his frame of mind.²¹⁵ During demonstration reels for MGM, Kubrick decided to show the 'silent' scenes of the interior of the spaceship and the moon shuttlecraft *Orion*. Knowing they were weary of the spiralling costs of the film, he added the music that he had been playing during production to the final cut of the film. For example, Kubrick matched Johann Strauss' *Blue Danube* to the slow and graceful movements in space. The melody of the waltz seems to work in harmony with the simple elegance of these scenes. By placing such a well-known piece of music in a new context, Kubrick attempts to subvert any previous associations the audience may have had. As it is first heard in the transition from 'primitive' man to 'scientific' man, it could also serve as a comment on the potential for peace that future technology could provide. Additionally, *Lux Aeterna* by Gyorgy Ligeti is placed over scenes that announce the presence of the monolith. The haunting, abstract nature of the music seems to function as the aural equivalent of this strange, alien object. The result is both mesmerising and frightening. Michel Ciment (1980, p.128) suggests that it "coincides with Arthur C. Clarke's idea that all technology, if sufficiently advanced, is touched with magic and a certain irrationality".

Richard Strauss' *Thus Spake Zarathustra* is arguably the most memorable piece of music in *2001: A SPACE ODYSSEY*. Its enduring presence in our cultural consciousness is perhaps related to the many functions it serves in the film. The music, written by Richard Strauss in 1896, was intended for a tone poem based on the writings of Friedrich Nietzsche. It would appear that Strauss' intention was to capture the prophetic nature of the book. Kubrick

²¹⁴ Musique Concrète, created by Pierre Schaeffer in the 1940s, challenged many of the traditional definitions of music and conventions of composing. It was based on the manipulation of tape recordings of natural or man-made noises. Most involved the cutting and splicing of disparate sound items, played at various speeds or in different directions or in an endless loop. This musical movement helped give birth to electronic music.

²¹⁵ He tried to hire Carl Orff, the composer of *Carmen Burana*, but Orff refused, claiming that he was too old for such a project.

capitalised on this very notion. The rising tones mark the opening of the film, which visually displays the beginning of time. Its triumphant fanfare expresses the majesty of the universe and announces the potential of humankind. It seems to communicate that this film will be bold in narrative, meaning and relevance. As the opening music fades into the 'Dawn of Man' sequence, the music takes on a referential significance. For in section 3 of Nietzsche's prologue, Zarathustra the prophet proclaims that as man surpassed ape, so must he strive to become the Superman so that he may go beyond the beastly aspects of man. In consideration of the evolutionary theme of the narrative, the selection of music was clearly not arbitrary. In fact, Kubrick, upon reflection of the film's final, albeit ambiguous, conclusion stated, "He [Bowman] is reborn, an enhanced being, a 'star child', an angel, a superman, if you like, and returns to earth to prepare for the next leap forward of man's evolutionary destiny" (Kagan 1972, p.156). As the result of endowing this piece of music with such significance, it has now become almost impossible to disassociate it from the significance Kubrick gave it.

Kubrick continued to draw heavily upon concepts of the future and pre-existing music in his next film. In *A CLOCKWORK ORANGE* (1971), Kubrick fused well-known classical pieces with electronic music. As in *2001: A SPACE ODYSSEY*, this score drew on the audience's familiarity with the music. It also demanded new associations. However, the re-contextualisation of the music for this film was established on two levels: the synthesised re-workings of famous pieces and the use of them set against the imagery of sex and graphic violence. Moreover, the use of a classical music based score was not a random choice. Anthony Burgess' book had music as one of its vital elements in that Alex (McDowell), the main character, has a deep appreciation of Ludwig Van Beethoven. The score transformed from a pure classical soundtrack when Kubrick employed Walter Carlos (now known as Wendy Carlos). Carlos had released an album entitled *Switched-on Bach* in

1968, which involved his use of a 'spectrum follower' (i.e. a device that converts sound, especially speech, into electronic signals that can mimic the original sound) (Bridgett 1998). Carlos and his partner Rachel Elkind approached Kubrick upon discovering that he was in the process of making a film of Burgess' book and they were immediately contracted to re-arrange some of his temp tracks. The result of their collaboration was a soundtrack filled with electronic versions of Purcell, Rossini and Beethoven.

In addition, the use of classical music in this film challenges the concept of 'high art' having a morally redeeming effect on society. A CLOCKWORK ORANGE clearly states this as a misnomer. In response to the narrative's combination of violence, rape and classical music, Kubrick said that "Hitler loved good music and many top Nazis were cultured and sophisticated men, but this didn't do them, or anyone else, much good" (Bridgett 1998). The mixture of such forces can be noted in the fact that Alex (McDowell) has passions for ultra-violence and for Beethoven. No differentiation is made between the two; neither is given the moral high ground. Both enthusiasms are shown to be rooted in the same source as Alex's anti-social behaviour - human nature (Nelson 1982, p.135-36). Thus, it would appear that the pieces of music used throughout the film are not meant to debase 'high culture', but to liberate it from being labelled as a sign of nobility.

Kubrick's overall view of the film is that of a great action ballet and he saw the music as its orchestration. Crucial to the soundtrack's effectiveness was the way it stylised many of the scenes. This seems especially relevant to many of the barbarous sequences. Kubrick explained:

it was necessary to find some way to stylising the violence, just as Burgess does by his writing style. The ironic counterpoint of the music was certainly one of the ways of achieving this. All of the scenes of violence are very different without the music (Lubritto 1999, p. 338).

Hence, in the fight sequence in the dilapidated opera house, Kubrick combines a section of Rossini's *The Thieving Magpie* with slow-motion photography. The result is a graceful dance between the gangs, as they hurl themselves at each other, slide about, jump through windows and somersault across the floor. The overt incongruity between sound and image denotes the style, and demonstrates the pleasure Alex's gang receive from committing such an act. Furthermore, the fact that this scene is performed on a long-abandoned stage suggests that art and culture had all become totally insignificant in this future world.

In a subsequent scene of rape and violence, Alex and his gang of 'droogs' burst into a house wearing ridiculous phallic-like masks. They move swiftly about into the white interior, grabbing Mrs Alexander (Corri) and kicking her husband down the stairs. The graphic nature of the sequence is then heightened when Alex belts out verses of *Singing in the Rain* each time he kicks Mr Alexander (Magee) in the stomach.²¹⁶ By supplanting this song from its pleasant musical origins, it grants the scene a sense of irony and forcefully emphasises Alex's glee.

In other scenes, Kubrick relinquished his tight control and allowed Carlos and Elkind to influence his decisions regarding the appropriateness of the music. In the 'orgy' sequence, Kubrick wanted to use the opening section of the *William Tell Overture*. According to Carlos, it was originally to be heard as a conventional recording, but he suggested Kubrick try his sped up synthesizer version with the reasoning that it would be funnier (Lubritto 1999, p.351). The end result was put into the film. Carlos and Elkind also influenced the music for the opening of the film. Kubrick was determined to use Henry Purcell's *Music for the Funeral of Queen Mary* for the scene, but was unhappy with the particular recording he had. He asked the composers to rework it.

²¹⁶ This is the only non-classical pieces of music in this film.

They produced a version that Carlos called “spacey, electronic and weird” and Kubrick greatly appreciated the difference it offered (ibid., p. 353). Its eerie and haunting melody not only introduces the sinister atmosphere of the film, but the synthesised tones also encapsulate the futuristic environment of the characters.

The Dolby Sound Revolution

During the production process of *A CLOCKWORK ORANGE* Kubrick also made use of Ray Dolby's noise reduction technology (albeit hesitantly²¹⁷). In 1965 Dolby had revolutionised recording and reproduction by inventing a new form of audio compression and expansion.²¹⁸ Millard (1995, p.318-319) summarises Ray Dolby's initial noise reduction systems (A and B) as those that were:

based on pre-emphasis of certain higher frequencies in recording and de-emphasis of them during playback. The system splits them into four audio frequency signal bands and raises the volume of some of the high frequencies – normally the quieter passages of music or conversation – to record these frequencies at higher levels than the other bands. Tape hiss is most audible at high frequencies, and the sounds at this level were the ones increased by the Dolby system to mask out the annoying noise. In playback these frequencies are reduced to their original levels by the exact amount that were previously raised, and much of the background noise and tape hiss, which is most evident during playback of the quieter passages, reduced because the sound signal overrides it. If the sound recorded has sufficiently high frequencies to drown out the hiss, the Dolby system does not boost them.

The superior quality allowed for extremely high fidelity without any discernable side effects on the material being recorded. This meant the system proved it to be unique among any previous attempts at noise reduction. It quickly became a standard for the music industry and audiocassette manufacturers.

Dolby noise reduction also required encoding when recording and decoding when in playback. Thus, it was designed to be an integrated part of an audio system. Dolby's company, Dolby Laboratories Incorporated, therefore, began the manufacture of their own audio products for sound professionals. Simultaneously, it commenced the licensing of a consumer version of its

²¹⁷ The music was recorded in stereo on Dolby B-type NR cassette tape machines, but Kubrick was unsure how to master the tracks in stereo, so he rerecorded them in monaural. However, during the mixing session they utilised the Dolby noise reduction system on all aspects of the rerecording. Despite its potential, Kubrick also excluded the production sound for this process (from Vincent Lubritto. *Stanley Kubrick: A Biography*).

²¹⁸ The following information has been obtained from the Dolby website, unless otherwise stated.

technology for the use in hi-fi equipment and tape recorders. Dolby quickly benefited from this licensing arrangement when, in 1971, they went into partnership with Signetics Corporation in the manufacture of a dedicated integrated circuit. As the number of licensees grew, the need for more formal quality control increased.²¹⁹ Dolby Laboratories reinforced standards by instituting a procedure for testing the quality of each product that made use of their systems.

Concurrently, Ray Dolby began developing a system specifically for cinema sound reproduction. He noted that in addition to the noisy apparatus, optical sound in cinemas had also been limited by a convention to curtail the use of high-frequency response because it generated noise. Dolby also discovered that sound mixers were forced to increase high frequencies in order to improve the intelligibility of the dialogue, resulting in distortion. As a solution for these problems, his intention was to create a system that enabled a wider frequency response while still permitting mixers to record less distorted tracks. The first of these was Model 364, which was designed to decode monaural optical sound recorded with Dolby A-type Noise Reduction. This system was then expanded to include a special equalizer to widen the response of loudspeakers already in place in cinemas. The most significant aspect of this improvement was that it allowed the cinemas without decoders the same Dolby quality; thus, it quelled the fears of Studios who thought that more than one version of the film would need to be distributed. As a result of this assurance, when the Dolby B-type was introduced to film sound recording, there was no question of its adaptability.

²¹⁹ Dolby introduced a simplified licensing agreement that granted patent, trademark, know-how rights and a royalty structure based on the number of Dolby circuits sold per quarter. This generous system proved very successful and serves as the basis for Dolby licensing currently in place.

Discouraged by the fact that monaural sound was inferior to the home systems of most filmgoers, Dolby introduced a new optical system in 1974 that not only carried information on the right and left channels, but also had a centre channel and a fourth channel for ambient sound and special effects. This new system could also be configured to permit monaural playback, which again meant Studios had only to release one print of the film. This Dolby stereo system was quieter and cheaper than magnetic stereo, and it required very little maintenance. Though eager for the economic edge over radio and television, Hollywood studios remained hesitant to adopt it as the film industry standard. The first feature film to be presented in this format was TOMMY (Russell 1975), a filmed musical that had an entirely post-produced soundtrack. It was not until the release of the much-publicised remake of A STAR IS BORN (Pierson 1976) that audiences became more aware of the aural differences experienced in a film encoded for Dolby stereo. While these films enjoyed only limited success, the high quality sound system made a significant impression on the industry.

Realistic awareness of the impact of this new system arrived with the recording of STAR WARS (Lucas 1977) and CLOSE ENCOUNTERS OF THE THIRD KIND (Spielberg 1977) in Dolby stereo. The popular and economic success of both of these films strongly suggested to Studio executives that Dolby stereo was a financially viable option. Soon afterward, a new international standard based on Dolby stereo became the industry norm for cinema sound reproduction. To accommodate this transition, an adjustable equaliser was built into every cinema installation of Dolby technology, together with a signal processor, which provided all the electronics from the photocell to the power amplifier (AMPAS Newsletter 1977). As a result, multi-channel stereo was granted a new lease of life.

To assure the continuing success of their product, Dolby Laboratories established a wide-ranging programme on a global scale. Dolby film sound consultants were created. They assisted at mixes and advised individuals on the operation of the Dolby system. For recurring issues or the introduction of new technology, consultants instituted regular training courses for equipment installers and technicians. Dolby also insisted on offering the film industry the same high level of quality control on all of their products that they had granted to the recording industry. In achieving this, Dolby Laboratories has maintained a high standard throughout the industry, recognised and valued by both professionals and the public alike.²²⁰

In 1982 Dolby Laboratories introduced a further development in surround sound to the home market. The Dolby Surround system allowed consumers to experience a similar sound environment at home as they would in the cinema. It was achieved by encoding two tracks of any stereo source with four-channels of sound and then providing the customer with the means of decoding a surround channel through their television or hi-fi system. The marketplace quickly accepted this configuration, as it had already been established in the cinema. Its subsequent upgrade in 1987, Dolby Surround Pro Logic, made it possible to decode the centre channel, which usually contained dialogue. The result was an even closer experience to that of cinema sound reproduction.

Dolby Laboratories then embarked on several different projects to advance their process further. In 1986 they released Dolby Spectral Recording (Dolby SR), an analogue recording method that combined technology from earlier systems in order to create optical soundtracks with ultra-low noise and negligible distortion. Concurrently, they began researching digital audio

²²⁰ Dolby approved films are designated with the “double d” symbol, which has now become synonymous with superior sound quality.

equipment with the purpose of reducing the amount of data needed to transmit and store high-quality sound. Their first digital decoder was introduced in 1984 (AC-1) and it was adopted by a number of satellite and cable broadcasters in 1985. It was not until their third system (AC-3) that Dolby Digital came into being. Released in 1992, it was specifically designed for multi-channel applications, both in cinemas and with home theatre systems. As noise proportionately increases in relation to the amount of audio input, Dolby Digital was designed to monitor the level of noise by increasing it up to the point just before it became audible. This level would still be masked by the audio signal itself so that the digital aural output was maximised. With the subsequent introduction of Dolby Digital 5.1-channel formats, this technique could be used over 6 channels of audio data.²²¹ The bit-rate reduction of Dolby Digital also allowed space on the print release for a completely separate optical track, making it compatible with any cinema sound system.

Unlike previous 'revolutions' in sound, Dolby technologies did not require a complete reconstruction of the industry. Its circuitry and audio products were designed to complement existing equipment or to accommodate alternate sound formats. Each item had as its goal the enhancement of the aural experience, achievable only through a strict adherence to high standards and superior quality. With the introduction of a practical stereo system, Dolby Laboratories reinvigorated an industry, whose sound quality tended to be much lower than the average filmgoer's home hi-fi system. With the knowledge that the audience would now be listening more intently, filmmakers were encouraged to re-consider the aural content of their films. Dolby technologies now offered a new generation of film sound practitioners the freedom to experiment with the subtleties of sound. As a result, the

²²¹ These included five full-range channels (left, right, centre, left surround and right surround) and a sixth bass-only channel, called low-frequency effect (LFE)

possibility of an overall view towards the integral design of sound and vision had begun.

At the same time, in the 1980s, George Lucas and his chief engineer, Tomlinson Holman, embarked on a strategy for cinema reproduction that would complement the Dolby processors. They noticed that in the aural reproduction of Lucas' Star Wars films that each cinema sounded differently. Upon investigation, Holman discovered this related to the fact that a majority of loudspeakers built since 1940 had been designed at a time when amplification was expensive, and therefore each theatre had the same configuration regardless of its acoustic space.²²² The solution was to upgrade the system to reflect the more recent uses of amplifier power. This resulting system, dubbed THX, was "comprised of customized acoustical design work for each auditorium, a special screen speaker installation method, a proprietary electronic crossover network, and rigorous audio equipment specifications and performance standards" (Schoenherr 2000). Providing for the individual requirements of each cinema meant they now had the opportunity of reproducing the highest quality sound. Therefore, loudspeakers could give the improved bass response generated by Dolby equipment and less distortion at high sound levels with a better overall uniformity to the frequencies produced. As a result, the film industry quickly embraced this method of reproduction²²³ and the public soon became appreciative of its superior quality.

The advent of multiplex cinemas in the 1990s help solidify the unification of Dolby technology with THX standards. The wide acceptance of these systems inspired the development of several rival cinema sound formats. Eastman

²²² Moreover, this lack of concern for the sound quality of individual cinemas not only reflects the lower priority given to sound, but it also overtly demonstrates the misapprehension of the role of sound in the presentation of a film.

²²³ It was first used for Lucas' release of THE EMPIRE STRIKES BACK (Kershner) in 1980.

Kodak and Optical Radiation Corporation introduced a 35mm digital sound system called *Cinema Digital Sound* (CDS) in 1990. However, it had not allowed for alternate optical systems to be used simultaneously; and thus, its high expense proved too much of a risk for the Studios. In 1993 JURASSIC PARK (Spielberg) was released with the *Digital Theater System* (DTS). This format allowed for the recording of "six tracks on separate CD-ROMs, synchronised by an optical timecode track recorded on the film" (Schoenherr 2000). Unlike CDS it was created to accommodate an alternate optical track. It also had a faster bit-rate than Dolby AC-3 (which allowed for more compression) and it could be installed in two different layouts. DTS is currently the biggest competition to Dolby. It is claimed that it has now been put in 10,000 cinemas world-wide (Sharnhorst 1997). In that same year, corporate giant, Sony, introduced *Sony Dynamic Digital Sound* (SDDS). This system put six or eight tracks on two optical stripes on each side of the film using minidisc technology. It too was designed to be compatible with standard optical tracks, and as such, thrives today. Despite these challengers, Dolby still dominates the market.²²⁴

As a consequence, Dolby and similar systems have made audiences much more aware of film sound, from both the home cinema and the movie theatre perspective. This current generation of filmgoers, especially those who were born during the digital age, now have high expectations when it comes to 'good' film sound. In response, cinema architecture has been converted to accommodate the demands of the aforesaid evolving sound systems. Sergi (1999) wrote that this addressed many long-standing problems, while it simultaneously answered the audience's needs; examples include:

²²⁴ As of 1998 they had sold over 50,000 sound processors worldwide.

- (1) By incorporating more phono-absorbant material and avoiding 'bouncy' surfaces, unwanted echoes are reduced
- (2) By installing better insulation, extraneous noises such as sounds those from adjacent theatres or air ventilation systems can be minimised
- (3) By arranging surround speakers in relation to the seating plan, their potential is maximised
- (4) By fitting speakers throughout the cinema complex in order to pipe in music and trailers from coming features, it immerses the audience in sound before the performance

Sergi (1999) also pointed out that these changes emphatically declared that there was an awareness of the correlation between the audience and sound reproduction. However, this possible awareness is consistent with the American film industry's business ethos, as stated throughout this paper. In other words, it seems less likely they have viewed these changes as a way of promoting sound in film, it more likely that their motivation had been to increase profits. It does, however, show that attempts are being made to create a better environment for sound.

Sound Gains Recognition: The Work of Walter Murch, Ben Burtt and Alan Splet

As attention to aural ingredients increased in the 1970s, sound crewmembers and composers responsible for the auditory content of a film gained prominence. The importance of communications between directors and the staff responsible for all sound elements were improving. At the forefront of this new vanguard were three sound practitioners: Walter Murch, Ben Burtt and Alan Splet. The work of these three individuals challenged the conventional, old-fashioned and less imaginative uses of film sound. Their 'subtle rebellion' helped to elevate the role of sound in the storytelling process so that there was a greater appreciation of the artistry involved.

Walter Murch met George Lucas and Francis Ford Coppola as a graduate of the film school at the University of Southern California. Murch had developed an interest in sound through his many experimental tape recordings and interest in *Musique Concrète* as a teenager.²²⁴ He noticed quite early on a correlation between what is seen and what is heard. In a interview, he said:

I think that, to a degree, it was already obvious to me [...] it places the image in a physical and emotional context, helping us to decide how to take the image and how it integrates into everything else (Hilton 1998).

Murch initially applied this notion to Lucas' first feature-length film, *THX 1138* (1971), which he had also co-authored. This dystopian fantasy used naturalistic sounds in non-naturalistic ways to convey its futuristic world. Produced before the advent of computers and digital technology, Murch had to create a majority of the sounds by hand. Via a Moog synthesizer, he "experimented with wave forms until [he] came up with something computerish"; he also recorded voices through transistor-radios and for

²²⁴ Revisit footnote 214 for a description of *Musique Concrète*.

robotic footsteps he walked across a museum's marble floor wearing shoes with metal springs on them (Lobrutto 1999,p.87). Murch also explored the effect of layering sounds on top of one another. This can be heard in the scene where Robert Duvall's character escapes from the white void and is confronted by a barrage of noise. Murch blended the recording of a roller derby with many waterfalls, but found that if you added a slightly distinguishable sound over them, it made the noise sound much louder and more powerful (ibid., p.86). He noticed that the layering of similar sounds gave the impression of a much larger noise and did not require perfect synchronisation. However, the layers had to be limited to three. As an example of this, he noted that when one or two characters were walking, their footsteps had to be synced up or it would be viewed as a fault. In contrast, if you had two and a half to three sounds of footfalls, the mind would believe they were co-ordinated without the effort of exact positioning (ibid., p.87). These initial discoveries influenced the majority of his future uses of sound.

Following this, Murch gave a unique acoustic treatment to Lucas' AMERICAN GRAFFITI (1973). For this film an entire radio programme was created and edited, featuring commercials and the ever-present voice of Wolfman Jack as the disk jockey. To generate a realistic perception of the show, Walter Murch needed to make it seem as if it were a naturally occurring element of the film; a process he would later refer to as 'worldising'. In an interview with Michael Jarrett (2000) he explained that he took the master track of the radio broadcast and recorded it again outside with Lucas moving in random directions with the speaker while maintaining a distance from Murch. To communicate a naturalistic impression of movement or reflected sound, he often blended or changed the tracks from one to another. Hence, when the sound shifted from the original 'dry' recording to one of the 'outside' versions

it infused the film with the sonic equivalent of depth of field. Elsewhere, 'worldising' techniques included muffling the radio broadcast with a box filled with upholstery and baffling to simulate the way it would emit from inside a car (ibid., p.87-88). As a result of these experiments, Walter Murch realised the importance of recording more than the sound itself; that is, he understood that it was necessary to capture the relationship between the sound source and the space around it.

Building on this knowledge, Murch embarked on his next major project, Coppola's *THE CONVERSATION* (1974). For this film, he did both picture editing and 'sound montage'; a term that referred to how Murch assembled the sound ingredients and was nebulous enough to hide his non-union position in the film industry.²¹⁶ As the title of the film suggests, the narrative was chiefly sound-driven in that it involved a discovery made by a surveillance expert through a surreptitious recording. However, it also relates how circumstances can influence the way we perceive sounds because the film culminates in the revelation that the expert's interpretation had been grossly incorrect. The conversation itself was recorded several times on location, using radio microphones that picked up static and transmission problems. Murch then simulated digital interference via a synthesizer to suggest that the surveillance expert had equipment that exceeded the norm. By combining the synthesized voices and the original voices, he was able to produce the level of distortion he wanted. Manual mixing was used to simulate how the expert was able to isolate these voices from the other sound sources, which also draws heavily on the human tendency to be vococentric. The film ends with an overt aural revelation of the expert's misunderstanding of the line: 'He'd kill us if he got the chance'. Throughout the film the emphasis is put on the word 'kill', where the true stress is on the

²¹⁶ There was a strong restriction that production crew should be separated from post-production crew.

word 'us'. This reading was actually unplanned; it was inserted nearly a year later as a means of demonstrating the surveillance expert's ability to filter every sound technically yet at the same time neglecting his own subjective perception (Barnes 2002).²¹⁷

The soundscapes Walter Murch created for APOCALYPSE NOW (Coppola 1979) have since become landmarks in film sound. It was not only his first stereo film, but Coppola had asked him to construct it in a quadraphonic format. To achieve this Murch combined and expanded all his previous techniques. He mapped out the sound effects and music on paper, highlighting those that would be in mono, those that would be in stereo and those that would be in full quadraphonic. For mixing, he revisited his rule of three by using two tracks at full level and a third either moving up or down a level (ibid., p.91). This style of layering dominates the opening scene, the helicopter battle and the sequence at Du Long Bridge. In the first scene, Murch processed many of the helicopter sounds through a synthesizer, allowing him to mix abstract and realistic impressions of these vehicles in which to represent the character's deteriorating state of mind. Furthermore, the quadraphonic format enabled Murch to create the illusion of moving sound because a sound could travel to each corner of the cinema, generating a 360 degrees effect. This style of sound infused the film with ambience that enveloped the whole cinema space and, accordingly, place the audience in the centre of narrative.

Ben Burtt designed the sound innovations of the groundbreaking film STAR WARS. Like Murch, Burtt was involved in the construction of the entire soundtrack. This meant his responsibilities included production recording, sound editing and sound mixing. After being given a general précis of the film

²¹⁷ The author's detailed analysis of THE CONVERSATION can be found in Appendix E.

and a series of sketches of various alien creatures and objects, Burttt was given the freedom to work at his own pace. Lucas and Burttt agreed that the sound effects would be drawn from organic sources rather than electronic in order to ground the film in a tangible reality. Burttt said:

Since we were going to design a visual world that had rust and dents and dirt, we wanted a sound which had squeaks and motors that may not be smooth-sounding... Therefore we wanted to draw upon raw material from the real world: real motors, real squeaky door, real insects; this sort of thing (Carlsson 1997).

In the end, he spent a year recording and manipulating sounds with the sole purpose of making the unbelievable believable.

Burttt collected his sounds from a variety of sources. Animals figured quite prominently in his recordings. For the screech of the TIE fighters, he radically altered the sound of an elephant he had recorded at the zoo. He also pieced together Chewbacca's (Mayhew) voice by taping a walrus, howling in an empty pool at an animal park, with other animals. Explaining the exact construct of Chewbacca's vocalisations, Burttt stated:

You have bits and fragments of animal sounds which you have collected and put into lists: here is an affectionate sound and here is an angry sound and [...] they are clipped together and blended. With a Wookiee, you might end up with five or six tracks, sometimes, to get the flow of the sentence (Carlsson 1997).

The majority of other sounds were created from mechanical sources. The laser blasts were generated by manipulating the recording of a hammer hitting against wires of a radio tower and the sound of Luke Skywalker's (Hamill) land-speeder was achieved by taping the roar of the traffic on the Los Angeles Harbor Freeway through a vacuum-cleaner pipe. Burttt based the sound of the light-sabre on his very first viewing of the painting; it consisted of a mixture of the hum of an old film projector motor and the buzz of a

television transmission, which was recorded with a moving microphone to produce a Doppler effect (Burt 2004).

In addition to this, Burt initiated a new configuration for auditorium loudspeakers. Established in 1983 with the release of RETURN OF THE JEDI (Marquand), he put all the narrative information in the front speakers, and all additional (but pertinent) effects in the surround speakers. Altman (1995, p.7) claimed that this gave surround speakers "a new career (especially in fantasy or horror films) as purveyors of spectacular effects" because it freed them from carrying narrative events or spatial fidelity. Moreover, the front speakers were given to greater bass frequencies, allowing for stronger signals that could shake the cinema. These standards were soon adopted by the entire industry. Later, though not Burt's idea, with the advent of 5.1 sound, the centre speaker was made responsible for carrying dialogue. This decision ignored the narrative qualities of effects and music, and simply reinforced the long-established Hollywood convention of foregrounding dialogue for purposes of clarity.

As a result of his ingenuity, Burt not only gave Lucas' film, set in another galaxy, a very naturalistic atmosphere, but he also made it extremely convincing. By avoiding artificially produced sound effects, he helped generate a strong fidelity between the image and the sonic equivalent. His ability to supervise the creation and development of all the sound effects from pre-production to post-production provided the film with a consistent tone. At the script stage he was able to suggest what he viewed necessary for recording; his frequent visits to the set also allowed him to construct sounds that he knew he would need later; his presence at the picture edit encouraged the inclusion of specifically designed sounds from the library he had been compiling (Burt 2004). In addition to showing the benefit of

interweaving the roles of the sound practitioner, Burtt also foregrounded prominent sound effects, which draws the audience's attention to the power aural ingredients has in a given film.

At the same time as Murch and Burtt, young filmmakers with the support of the American Film Institute, were also developing a project that put its sound content in the forefront. The result of this endeavor was ERASERHEAD (1977), David Lynch's first feature film. Its dense sonic atmosphere and unique sound effects can be attributed to his collaboration with Alan Splet. Splet began work with Lynch in 1969 when Lynch's previous sound recordist/editor became unavailable. Splet had just joined a small post-production studio that normally created sounds for industrial films. Lynch felt that Splet possessed the best combination of interests in a sound practitioner; he loved music, chiefly classical, and he enjoyed electronics.²¹⁸ Their first project together was Lynch's short film, THE GRANDMOTHER (1970). Both had an enthusiasm for fresh organic sounds and they spent nine weeks building a sound effects library before filming a single scene. The limits of the studio inspired them to take inventive ways of creating sounds. For example, they were able to compensate for the lack of reverberation by playing recordings through the heating ducts until the desired effect was achieved.

Fraught with many troubles and interruptions, ERASERHEAD was finally completed six years later. Lynch and Splet had spent one of those years entirely devoted to inventing a sonic environment for the film. The result was a deeply moody soundtrack that infused each scene with forceful energy. Apart from a diegetic Fats Waller tune and the song "In Heaven Everything is Fine", the film lacked any semblance of a musical score. Therefore, to ensure

²¹⁸ In fact, his passion for electronics went as far to include him building a radio station in his garage when he was still at school.

that the other aural ingredients carried the narrative and emotional references, Splet provided the film with arresting sound effects and layers of dark Musique Concrète-style ambience. These haunting sounds complemented the film's oblique narrative as well as the consistent presence of darkness and shadows formed within the black and white frames. The disturbing drones and atonal mechanical noises that fill most of the film grant it a sense of hyperrealism while grounding it in the context of the filmic world Lynch envisioned.²¹⁹

This passion for detail and organic sounds continued in their next project together. In 1979 Lynch was asked by Mel Brooks to work on a film version of Treves' and Mantagu's *The Elephant Man*. For this film he and Splet drew on their experience of creating dense, industrial noises to build a sonic environment for England in the late 1900s. The result gives the narrative a sense of the oppressive nature of Victorian times. Furthermore, Splet and Lynch attempted to capture the aural perspective within John Merrick's head (the Elephant Man of the title [John Hurt]) in order to generate an emotional connection between him and the audience. As with their work with ERASERHEAD, they would layer sounds to create a mood that would then have further individual sounds added, which could introduce threat or sadness. Fearing the bizarre noises Splet and Lynch were working on would not fit the picture, the British sound crew made their own soundtrack of much more conventional sound effects. This, however, proved to be unnecessary.

In addition to elevating the standing of sound within the industry, Alan Splet, Ben Burtt and Walter Murch have since encouraged many individuals to get involved in film sound production. Most of them, later, received recognition in their own right. They include both Mark Mangini and Gary Rydstrom, who

²¹⁹ The author's detailed analysis of *Eraserhead* can be found in Appendix E (Barnes 2001).

began their careers working on Indiana Jones films with Burt: RAIDERS OF THE LOST ARK (Spielberg 1981) and INDIANA JONES AND THE TEMPLE OF DOOM (Spielberg 1984) respectively. They also include Randy Thom, one of the leading promoters of the virtues of film sound. He worked with Murch on APOCALYPSE NOW, Burt on STAR WARS VI: RETURN OF THE JEDI and Splet on NEVER CRY WOLF (Ballard 1983). In addition, the influence of Burt, Murch and Splet inspired later sound practitioners to take on the credit title of 'Sound Designer'. Thus, as a result of their groundbreaking work, the hope of further advancing the potential of aural ingredients in films was finally realised.

APPENDIX C

The Coen's Use of Sound: Main Themes

Narrative Echoes: the Use of Aural Repetition

Reoccurring music cues, sound effects and dialogue emerge throughout all of the Coen brothers' films. Regardless of being diegetic or nondiegetic, all three aural ingredients give further verisimilitude to the overall narrative that Joel and Ethan Coen wish to convey. Additionally, the recurring aural elements enhance the drama of precise points in the film. They are skilful placement and their prevalence within all of their narratives suggests that they are planned elements of each film. This integration of sound and vision is characteristic of their overall style. In particular, it emphasises how their storylines are communicated.

Both aural and visual elements of a film by Joel and Ethan Coen can be appreciated and understood as a cohesive unit. This integration of sound and image, along with the consistent and long-standing collaboration between their composer Carter Burwell and supervising sound editor/mixer Skip Lievsay, gives rise to similar devices being used throughout their films. It is possible that this repetition could draw attention to itself. However, it is the very reoccurrence of their music cues, sound effects and dialogue that allows most of them to remain 'hidden'. It is similar to filtering a single, uninterrupted tone out of our conscious level of hearing; its inconspicuous nature makes it easier for us to ignore its presence. As these items are used in a manner that decreases any awareness of them, the soundtrack is given greater freedom to 'manipulate' the audience's perception and understanding of the narrative.

Burwell's musical scores for most of Joel and Ethan Coen's films appear to be discreetly repetitious. His music tends to be based on character-orientated themes, rather than actions or plot (Brophy 1999, p.18). By concentrating on the overall structure, and without trying to 'mickeymouse' actions, Burwell is sanctioned to write music that evoke the film's narrative content and allows the audience to identify emotionally with the characters. As a result, Burwell's scores consist of subtle variations on the same theme, which repeat throughout the given film. The themes and its variations remind the audience that they have not departed from the film world. This consistency of tone offers greater believability because it aids in weaving the images and sounds together. Furthermore, as most of their films contain situations that gradually worsen, the repetitive score serves to reflect the circularity of their narratives. Repetition, therefore, helps preserve the natural progression of the stories, enhancing the narrative cohesion of each film.

In *BLOOD SIMPLE* (1983), the Coen brothers' first film, this kind of repetition was tied directly to the overarching atmosphere of the film. The film is not told from any one character's point of view, which gives the audience a sense of omniscience. This is especially significant since the crux of the film is that all the characters are 'in the dark'; mistrust is bred by the fact that nobody knows what anyone else is doing, or has done. Only the audience knows everything and they are asked follow the characters down every blind alley. Only those experiencing the film get a sense that things are out of control (certainly, their control) and that death is the only possible outcome. Burwell describes the music he wrote for this film as "relentlessly repetitious" which he hoped would "give a sense of a mechanism that is unwinding but outside the reach of the characters" (Brophy 1999, p.19). Hence, the use of repetition is integral to the construction of the film itself. It sets the trajectory

of the entire narrative, especially since an inherent part of endless repetition is the hope of resolution.

To the other extreme are the films *BARTON FINK* (1991) and *THE MAN WHO WASN'T THERE* (2001). Both are inward-looking films and are driven by the perspective of the central character. In *BARTON FINK* (Turturro) the protagonist is slowly descending into a dark, hellish nightmare; a hell brought about by his naivety and idealism. Therefore, in addition to creating a main theme that would reflect Barton's personality, Burwell also composed it to reflect the unsettling nature of the film. He said:

[The] melody is also very unresolving. In fact, it never ends until the very end title, where we hear the last chord in resolution. The melody is three bars long which means it repeats unexpectedly (ibid., p.24-25).

As a result, the repetition and the reflection knit this individual into the narrative, with the hope of encouraging the audience to find sympathy for an unlikeable character. Ed Crane (Thornton), the main character of *THE MAN WHO WASN'T THERE*, is given a repetitive theme that also mirrors the narrative tone of the film. Here, the Coens use the Adagio Cantabile of Beethoven's Piano Sonata (Number 8), "Pathétique" diegetically. Ed is portrayed as an extremely passive and quiet character, who longs to abandon his life as a barber. After failing to establish a dry-cleaning business, he desires to promote the musical talent of a young girl to whom he finds himself attracted. The first time Ed notices her, she is playing Beethoven's sonata. She is then repeatedly shown playing the same piece throughout the film. It is, therefore, reasonable to assume that the music's 'gentle' but highly complex melody embodies not only his personality, but it also lends itself to his idealistic perception of the young girl. Additionally, the 'poignancy' of the melody also communicates a degree of sadness (pathos)

about this character, which may be felt throughout the film, complementing the overall tragic nature of the narrative.

As music highlights characters and narrative aspects of their films, so does the repetition of specific sound effects. These repetitions serve many different functions within the filmic worlds created by Joel and Ethan Coen. The filmmakers and sound crew offer no clear-cut explanations for the meaning of these noises and ambient effects; therefore, what they signify can only be determined by conjecture. However, the fact that they recur so frequently cannot be dismissed as extraneous. In order to make reasonable assertions about their possible literal or metaphoric meanings, it is necessary that explanations "should occur within the parameters extended by the context developed by the whole film" (Brougham 1992, p.33). Therefore, suggested interpretations in this paper are considered in terms of their placement in the overall narrative, rather than in isolation. In view of this, these interpretations are meant to be highly plausible but not definitive.

The sound of the electric ceiling fans in *BLOOD SIMPLE* (1983) repeats throughout the film. It is chiefly used to identify Julian Marty (Hedaya), one of the main characters, and his office at the bar he owns. The first time we are introduced to this sound is through an acousmatic source. Ray (Getz) receives a phone call while he is in bed with Abby (McDormand) and the faint whirl of a ceiling fan is audible behind the caller's voice. We are then told that Marty, Abby's husband, had been on the telephone. This same ceiling fan is heard again later in Marty's office. Its image begins the scene and the hyperreal sound of the motor encourages us to identify it with Marty. This aural association is further drawn out in the next scene where Abby answers the phone at Ray's house to hear only the sound of that fan's whirling motor. She knows immediately that Marty is at the other end. The use of these fans

expands in a sequence that unites the characters. Once again it begins by cutting directly to the loud hum of Marty's ceiling fan; we are then shown Ray's ceiling fan with nearly the same sound and Abby sleeping under it. The sequence shifts back and forth between the three characters repeating all the auditory elements throughout. Burwell (Brophy 1999, p.20) stated that it was intended to give "the idea that they are all thinking about each other, even though they are in different spaces". This repetition of sounds helps identify an emotional bond between them, which is deeply intimate but at the same time extremely tense. The last time we hear the fan is when Abbey answers the phone in her own flat, but this time we know Marty is dead. As this is unknown to her, she once again identifies the 'silent' caller as her husband. Additionally, Brophy (1985) suggests that the fans appear not only to represent Julian Marty's place of work, but that the noise of their constant stirring is also "a representation of his inner, brooding turmoil". This is supported by the fact that in the film Abbey describes her husband as 'anal' and in most scenes he is shown to be profoundly upset about his wife's behaviour. Hence, the consistent use of this sound throughout the film not only establishes the identity of this character, but also his relationship to the other main characters.

In the pre-title sequence of RAISING ARIZONA (1987) a specific sound is used to mark the passage of time and the general tone of the film. A series of flashbulbs pop and sizzle each time H.I. McDonnough (Cage) is brought into the police station after being arrested. These sounds are usually matched with the image of a camera and a flashbulb, grounding it in concrete reality. However, because it recurs each time H.I. returns and is photographed by Edwina (Hunter), it also adds to the progression of their relationship by announcing each stage. There is one instance where the flashbulb's pop and sizzle is unaccompanied by the matching image. H.I. is in his cell and his

cellmate is describing his unconventional eating habits. As H.I. stares into the springs of the bed above him, blinding whiteness fills the screen with the aforementioned sound. Once resolved, we find H.I. again before the parole board. This repetition of the flashbulb sound clearly serves as another audio-time link to the next scene. Moreover, it is reasonable to assume that the 'mismatched' image does not distract the audience because it had already occurred several times before. Above all, this flashbulb effect feeds into the narrative circularity of the whole film by constantly interrupting the flow of a narrative that could otherwise be straightforwardly linear. By stopping this 'normal' progression (and restarting each time), the sound design helps communicate the 'abnormality' of the filmic world created for RAISING ARIZONA (1987).

Driving and cars are key visuals in the Coen brothers' 1996 release, FARGO. The main character, Jerry Lundegaard (Macy), sells second-hand cars for a living and the men he hires to pretend to kidnap his wife are constantly seen travelling from place to place in a car. The sound repeatedly heard when scenes begin with an external shot of their car in motion is significantly different to that of a 'normal' car. To all intents and purposes, the sound appears to be an ordinary car motor laced with a jet propulsion engine. This is, in fact, realised when one scene cuts to the freeway just outside the airport (a sign identifies it) and the same sound of the car engine is heard, but this time without the matching image. What is more, this aural element only accompanies the kidnappers' car. Since the men are outsiders, who seem more accustomed to big-city living, it is reasonable to assert that this 'mechanical' sound could also help to associate the men with a fast-paced, urban environment. All other cars (including police cars) are presented with a much less hyperreal sound, mirroring the leisurely lifestyle expressed by a majority of the other characters and the general casual atmosphere of the

entire film. Thus, it would appear from the contrastive nature of these sounds that this particular sonic repetition is purposeful and deliberate.

The opening and closing of doors seem to play a significant role in both *MILLER'S CROSSING* (1990) and *BARTON FINK* (1991). In both films Joel and Ethan Coen appear to use these sounds to denote how insular the main characters (Tom Reagan [Byrne] and Barton Fink respectively) are from the other characters. In both films, the doors are literally the ones Tom and Barton would use to enter their place of residence. Both Tom and Barton are portrayed as characters that lack heart; that is, they seem unable to have true and loving compassion for other human beings. Tom and Barton constantly meet other people in their 'homes' (sometimes unexpectedly), but their 'heart' is never revealed to anyone. They are, literally, prisoners of their own creation. They both hold to a rigid code of beliefs, from which they never waver. Every time Tom's door is closed, the 'thwack' falls on the cut. It is as though it is aurally demonstrating this self-isolation. In *BARTON FINK* the sound is even more extreme. It gives the impression that Barton lives inside a room that was practically vacuum-sealed. Lievsay designed it to sound "like the air was being sucked in from the hallway and through the door into the room" (McGrath 2001, p.173). This sound construction communicates that Barton's isolation was not just self-obsessive, but that his idealism may also be keeping him from the 'real' world.

There are some sounds used by Joel and Ethan that pervade all of their films. In no way do they unite the narratives of each film, but they could be seen as a means of identifying what typifies the aural content of a Coen brothers' film. Most of these sounds appear to be inside-jokes shared between Skip Lievsay and the filmmakers. For example, in *BLOOD SIMPLE* (1983), *MILLER'S CROSSING* (1990), *BARTON FINK* (1991) and *THE HUDSUCKER*

PROXY (1994) there is a scene where the main character vomits out of view. A teenage friend, Ron Neter, claimed "they really had an affinity with vomit in their films" (Bergan 2000, p.58). This comment was actually made about many of the Coen brothers' early Super-8 videos, but strangely enough, it is still relevant to their feature films it. Other sounds that can be heard in every one of their films are the BLOOD SIMPLE 'cow-car' (i.e. a car that sounds like a cow) and the 'hubcap' (i.e. the sound of wobbling object). One example of the latter can be found in BARTON FINK (1991), when Lipnik (Lerner) slams his fist down on the desk during his first meeting with Barton and we hear the wobble of an ashtray.

Repeating lines or words of dialogue also help define characters and tone within the soundscape of Joel and Ethan Coen's films. In addition to their nearly customary use of voice-over (heard in BLOOD SIMPLE, RAISING ARIZONA, THE HUDSUCKER PROXY, THE BIG LEBOWSKI [1998] and THE MAN WHO WASN'T THERE), the Coens quite regularly have characters repeating themselves and/or other lines heard within the narrative of the film. Most of these reoccurrences have a comic effect, which adds to the humour that usually infuses their films. In THE BIG LEBOWSKI, The Dude (Bridges) is constantly repeating lines spoken by other people, but usually with much less flair or competence. Examples include his repetition of George Bush, Sr.'s response to the Iraq's invasion of Kuwait: "This will not stand, this aggression will not stand", which is heard (and seen) on television in the opening scene of the film. The Dude also repeats Maude Lebowski's (Moore) phrase "in the parlance of our times". Both phrases are said to Jeffrey Lebowski in scenes where The Dude is defending himself. Throughout the film The Dude is portrayed as a likeable 'loser', who has no desire to cause trouble, but frequently finds himself engaged with people who do. By taking on the verbal personality of another person, The Dude appears to be trying to

exert some kind of authority over the situation. The fact that these lines are so incongruous to his personality and that they fail to command Jeffrey Lebowski's attention generates an amusing result.

The repetition of dialogue for comic effect can also be noticeably heard in *RAISING ARIZONA* and *O BROTHER, WHERE ART THOU?* (2000). Returning to the pre-title sequence at the beginning of *RAISING ARIZONA*, we find the phrase "Okay, then" repeated by several characters. It is the final response given to H.I. each time he sits before the parole board appealing for release and the final comment given by the preacher to confirm H.I.'s marriage to Edwina. Like the sound effects in this sequence, the repetitions of these words contribute to the circularity of the plot. Furthermore, they are spoken by representatives of two social institutions (i.e. the prison system and the church). As such, the phrase "Okay, then" seems to communicate a casual attitude towards 'living right' and 'family life'; both of which vex H.I. throughout the whole film and keep his sanity on edge. In *O BROTHER, WHERE ART THOU?*, the repeated phrase is spoken by the main character and epitomises his apparent self-obsession. Everett Ulysses McGill (Clooney) is portrayed as a man who likes the sound of his own voice. He is also constantly fussing about his hair, especially when it comes to keeping it properly greased. His self-appreciation affects him so much that every time he wakes up, he says, "My hair!" and touches it with his hands to assure himself it is still intact. The sequence suggests that the character's vanity even plagues his sleep. What is more, as the narrative of the film is based on McGill's journey to stop his ex-wife from marrying another man, it is also his vanity that propels the entire film. Thus, the recurrent use of this dialogue complements the film's overall narrative theme.

Repetitious dialogue also appears to some degree in *BLOOD SIMPLE* and *MILLER'S CROSSING*, but without apparent humorous intent. In the opening scene of *BLOOD SIMPLE* Ray and Abbey are discussing her marriage problems, while he is driving Abbey somewhere in his car. She wants his advice, but all Ray manages to say is that "[he] ain't a marriage counsellor". He repeats this a second time when they consider going to a hotel together. Later on, when Ray goes to collect his pay from Marty, her husband and his boss, Marty sarcastically accuses Ray of being a "marriage counsellor". The repetition of this phrase seems to reinforce Ray and Abbey's lack of moral culpability; that is, Abbey needed someone to make her decisions for her and Ray did not oblige her, and nor did he prevent her from committing an act of infidelity. Presently, both show no remorse for their actions. Perhaps the real irony is that a marriage counsellor would have been very helpful in this situation. *MILLER'S CROSSING* (1990) is also a film that deals with trust and betrayal, but from a different perspective. Tom Reagan, whose betrayal is actually a secret plan to free his boss of all his enemies, is heard repeating his own line throughout the film: "Nobody knows anybody...not that well". Tom reveals very little of himself to the other characters (or the audience) so this repeated line ultimately serves as the theme for his character and, conceivably, as the film's premise.

Lastly, one comic one-liner manages to recur in two different Coen brothers' films. Nathan Arizona [Wilson] (in *RAISING ARIZONA*) and the newspaper chief [Mahoney] (in *THE HUDSUCKER PROXY*) both say, "And if a frog had wings, it wouldn't bust its ass a-hoppin' ". Both characters are portrayed as men of authority accustomed to giving orders and having those orders followed. Despite this, their overly exaggerated personalities deny them any true sense of menace. The absurdity of the line seems to match their comic personas and allows them to sound even less threatening. In both films the

line is executed in exactly the same way. It is used by both characters as a means of chastising their employees for their lack of initiative. It may be reasonable to assume that this particular line is mainly for the audience's benefit because, despite its utter ludicrousness, no other character seems to acknowledge it in that way. Regardless of its actual function in both films, a rational explanation for its explicit reoccurrence is that Joel and Ethan Coen had a special fondness for that line and could not resist using it again.

On the surface, the repetition of sonic ingredients within the soundscape of a film may appear to have little or no significance. However, when used as extensively as the Coen brothers have, it takes on the greater import of being part of their films' sound design. Their use of recurring sounds, whether they are music, effects or dialogue, operate not only as a means of sustaining a cohesive narrative, but also as a way of defining characters and maintaining the overall tone of their stories. Above all, it is this repetition, that subtly reminds the audience of the 'realism' of the worlds created by the Coen brothers and helps to strengthen the audience's belief in what is happening on the screen.

Hyperreal Worlds: Sound and Setting

Film narratives, by nature of their design, are never truly 'real'. They are concocted through the editing together of scenes, usually shot out-of-sequence, and then enhanced by special effects and other technologies. Therefore, at best, they can only offer the impression of a given world. Even scenes for fly-on-the-wall documentaries must be selected and cut together, along with the possible addition of music and narration, to give some semblance of reality. It is by this deliberate 'falsification' of the real that these counterfeit worlds are considered believable. This was especially true during the earliest days of cinema, when audiences recognised (and sometimes feared) the realistic depiction of events on screen. Today's filmgoer is more acutely aware of the 'falsification' of cinema and despite this, has grown even more accustomed to the hyperreal portrayals of film worlds. To paraphrase Umberto Eco (1998, p.43), we have learned to admit the 'total fake' in order to enjoy it as totally real. That is to say, we ignore the forgery of these represented worlds and willingly suspend our disbelief. As a result, we experience these worlds as self-contained entities, and therefore, we are more apt to accept the plausibility of the events that occur there. It is therefore crucial filmmakers integrate the sounds and images of these worlds in order to sustain an even higher level of believability.

Joel and Ethan Coen have repeatedly demonstrated a balanced use of sonic and visual references to establish the settings of their films. From the beginning of their film careers in the 1980s they have used a variety of signifiers to identify where their films are set and the plausibility of specific actions and characters that occur there. This identification is vital to the Coens because a majority of the narratives of their films are immediately tied to the locations in which they occur. In fact, Joel Coen explained the importance of setting in their films by stating that "place is one of the things

we like to start with; a lot grows out of that somehow" (Andrew 1992 p.19). In their films, aural ingredients are used to perform multi-layered functions in order to express these various locations. Principally, they seem to be designed to help generate a hyperreal rendering of the physical location, rather than an actual geographic locale. That is, while genuine locations are present in their films, the Coen brothers' portrayal of them is essentially idealised, or 'hyperrealised'. Each film offers what could be described as an outsiders' view or romantic perspective of the place. Joel Coen, himself, stated that "it's like they're places of the mind; there's usually an exoticism at play" (ibid., p.19). For example, the Texas depicted in *BLOOD SIMPLE* (1983) is more of a symbolic reference to what one would imagine Texas is like, rather than a bona fide, 'realistic' representation of the state. Simultaneously, its Texas-ness (i.e. the heat, dryness, dust, etc.) seems to mirror the film's themes of passion, immorality and death. Their concern does not appear to be one of authenticity (i.e. a literal, physical location), but rather one that suggests an actual location through symbolic references and cultural associations. As this particular approach to expressing location is notable in all Coen brothers' films, their use of place is not only a practical necessity, but it also functions as a stylistic device.

Herein lies the paradox of Coensian geography. We are given worlds that at one level are accessible and realistic and then at another level are idealised and imaginary. Many would argue that this is the essence of talented filmmaking. Notwithstanding, it presents a situation where sound must be used to help enable the film to be expressed as one cohesive unit. Much of it is achieved in the way the Coen brothers' construct their musical scores, sound effects and highly stylised dialogue to be more conducive to the context of their films. Absolute realism is not the goal, reasonable verisimilitude is. Therefore, the sonic devices in Joel and Ethan Coen's films

should be considered as the anchors that secure their hyperreal worlds to a place recognisable to the audience.

This stylistic use of aural ingredients can also be noted in the Coen brothers more conventional work. In films such as *FARGO* (1996) and *MILLER'S CROSSING* (1990), aural ingredients act as a means of reinforcing the ethnicity of the represented locations in the stories and the characters that inhabit them. For *FARGO*, composer Carter Burwell drew upon the heritage of America's north Midwest, by researching Scandinavian musical styles and instruments. His musical score includes the use of a hardanger fiddle as well as a Norwegian folk song-turned-hymn called *The Lost Sheep* (Brophy 1999 p.36). This, along with the singsong style of dialogue, communicates an American enclave that is still heavily influenced by its ancestry. In *MILLER'S CROSSING* the idea of ethnicity is seen through the main characters, Tom Reagan and Leo (Byrne and Finney, respectively). Both of them are depicted as relatively recent immigrants from the Republic of Ireland. Burwell's music, here, has a distinctly Irish style; in fact, a majority of the score is based on several traditional Irish songs (e.g. *Limerick's Lamentation*, *Come Back to Erin* and *Danny Boy*) (Mottram 2000 p.58-59). Additionally, the music evokes a bygone era, which helps set the film in the past. In fact, *Danny Boy*, which had to be re-recorded, was engineered to sound as though it had been an original recording of the 1930s (Morgan 2000 p.65). The Damon Runyan-like dialogue in the film also suggests the characters form a particular American social unit, which gives gangsters a unique set of expressions that cross ethnic boundaries.

In two separate films by the Coen brothers, we are given an impression of Los Angeles. *BARTON FINK* (1991) chiefly takes place in Hollywood and its outskirts, whereas the narrative of *THE BIG LEBOWSKI* (1998) encompasses

the greater Los Angeles area. In spite of this, neither of these films includes a literal version of L.A. The Hollywood Barton (Turturro) lives in is presented as a threat to his art and to creativity in general. It is a Hollywood one could call 'the Evil Empire'. Yet, it is not a menace that charges in aggressively. There is a subtle, ominous overtone that hangs over Barton and eventually consumes him. Burwell's slow, melodic score mirrors this sinister presence, giving weight to Barton's internal anxiety as well as the potential evil of Hollywood. The atmospheric noises of the Hotel Earle in BARTON FINK communicate that something is overtly unsettling about that locale. The dialogue of the representatives of Hollywood, is fast-paced, forceful and unforgiving. Consequently, it grants the location further menace. Thus, as the world outside increasingly makes less sense to Barton, the Hotel, his sanctuary, becomes just as unstable.

In contrast, THE BIG LEBOWSKI is a cosmopolitan view of Los Angeles. The film begins with a Texan voice-over and the country/western song entitled "The Tumbling Tumbleweeds" by Sons of the Pioneers. Both aural ingredients evoke the West, the geographical location of Los Angeles in the United States. The film continues with a series of previously recorded pop or rock songs, which had been selected beforehand and written into the script. On one level the eclectic mixture of song titles mirror the extremely diverse population of Los Angeles. This is also observable within the narrative itself, for it depicts the main character encountering people of various social statuses in assorted locations in the city. Robertson (1998, p.38) expands this analysis of THE BIG LEBOWSKI (1998) by stating that its "out-and-out hodgepodge style is the embodiment of L.A.". On another level, it also is an intimate depiction of the main character, The Dude (Bridges), as a distinctive kind of Angelino. He is portrayed as a somewhat irresponsible, laid back man, in his late forties, who enjoys smoking marijuana and bowling. As a majority

of the songs are from the sixties and seventies, they "capture the feeling that the Dude is living in his own time and space" (Morgan 2000 p.70). What is more, the dialogue employed in this film comes across rather crass and vulgar with its extensive use of swear words. While not all Angelinos are particularly profane, the style of speech seems well suited for the Coens' representation of Los Angeles in the film.

Joel and Ethan Coen also use sonic devices to emulate particular regions in the United States. There are rather observable portrayals of the South and Southwest in *BLOOD SIMPLE*, *RAISING ARIZONA* (1987) and *O BROTHER, WHERE ART THOU?* (2000). In homage to this region, the Coen brothers themselves call these three films their 'Hayseed Trilogy' (Mottram 2000 p.42). As in the above examples, the music used for these films consists of both original scores and track music. *BLOOD SIMPLE*, as mentioned previously, is set in Texas, which is located in the southern part of America. Here, Carter Burwell's music does not express what would normally be associated with the State; its function appears to be to parallel with the film's main themes of relational distance and darkness. There is, in fact, only one country/western song in the film, *Sweet Dreams* by Patsy Cline. It is heard briefly as the camera passes over a drunk sleeping at the bar. Used this way, it serves mainly to mock the situation, rather than to reinforce the film's Texas-ness. This can be further drawn out by the fact that the characters use accents that do not have a distinctive southern drawl. Therefore, in this film, it is reasonable to assert that the repetitive sound of the electric ceiling fan, noted earlier, is what gives us a sense of place. It is present in every scene concerning the character Julian Marty's (Hedaya) office, regardless of whether it is within view. Thus, it explicitly identifies his workplace, but on a grander scale, with the continually churning motor, it also seems to epitomise the heat and passion of the Texas depicted in this film.

Arizona, which is geographically located in the southwest of America, has a distinct western appearance with its profusion of cacti and dry, wide-open spaces. In contrast to *BLOOD SIMPLE*, Burwell's score for *RAISING ARIZONA* attempts to represent this region with music more associated with a western rural landscape. He does this by using specific instruments and vocal techniques, such as: banjos, yodelling, spoons and whistling. All of which conjure up longstanding associations to the West and the 'countryside' of the United States. Burwell (Brophy 1999, p.23) stated that these musical devices express "some of the romance of the old west" and the "heart behind them is the heart of a cowboy". In addition to this, all the characters in the film, again in contrast to *BLOOD SIMPLE*, have clearly noticeable southern accents. However, this particular type of speech is more associated with America's 'Deep South' (i.e. Mississippi, Alabama, Georgia, etc.) rather than Arizona. Notwithstanding, it is reasonable to suggest that the purpose for using such an accent is to further communicate the idea that this film should suggest the 'country' rather than be explicitly Arizonian. In fact, one could argue that this 'countrification' is actually meant to illustrate a cultural stereotype found in the American class system, where poor white Southerners have been described as dim-witted bumpkins.

This communication of America's South (here, now the 'Deep South') recurs in *O BROTHER, WHERE ART THOU?*. However, it is expressed on a mythical scale. It is a film that utilises a plethora of diegetic and nondiegetic folk, gospel, 'old tyme' country/western and blues music. This music, mostly written into the script, resonates deeper than the surface-level. Mottram (2000) cites Ethan Coen declaring that the inspiration for the film itself "came largely from an enthusiasm for the music" (p.161) and he also quotes Joel Coen stating that "[the music] established the tone of the movie, and the feel

of the movie in our minds" (p.162). These particular styles of music typify the southern region of the United States, especially at the time of the great Depression (i.e. the early 1930s). The songs undulate from hopeful prosperity to utter despondency, with a majority encouraging optimism despite the circumstances. It suggests that many of the hungry and unemployed should adopt such an attitude. Additionally, throughout the film, gospel music not only encourages hope in bleak times, but it also reinforces the idea that this part of America is also known as 'The Bible Belt'; a label given to it because of its propensity to foster vehement Christian evangelists and to adhere to a rather stringent moral code. Accents, once again, also help communicate the film's southern-ness and further emphasise the stereotypical image of simple-minded country folk. Much like RAISING ARIZONA, each character speaks with a 'bona fides' drawl that one would immediately associate with that region. This is epitomised by Ulysses Everett McGill, played by George Clooney, who in manner and appearance resembles Clark Gable, an actor much associated with the film GONE WITH THE WIND (Fleming 1939) that told the story of the 'Deep South' during the American Civil War.

Lastly, the concept of big and small cities appears to be the focus of the films THE MAN WHO WASN'T THERE (2001) and THE HUDSUCKER PROXY (1994). The films are set in Santa Rosa, California and New York City, respectively. Yet, neither film seems to provide any signifiers that would specifically evoke either city. By withholding such references, the musical arrangements appear to communicate a more generic locality in both films. The music used for THE HUDSUCKER PROXY (1994), mickymouses most of the action, expressing the fast pace and the intimidation of the big city. As New York is one of the foremost cinematic examples of the big city, it is reasonable for the film to be situated there. Whereas the town of Santa Rosa is a small, quiet suburb, so

its music tends to be detached from its location and centred on the 'silent' world of the main character. In fact, a majority of the score is 'hidden'; it is present in almost every scene but at an almost inaudible level. Despite this lack of specific attachment to these two cities, both are verbally identified, via a voice-over, in the opening scenes of both films. Indeed, "New York City" are the first words heard in *THE HUDSUCKER PROXY* (1994). They are spoken by Moses (Cobbs), who is the timekeeper/narrator of the film. In *THE MAN WHO WASN'T THERE* (2001) Ed Crane (Thornton), the main character and narrator, declares it himself at the moment in the film when you see him for the first time. Both utterances create verbal anchors for the specific location they name.

Generating a believable (or at least acceptable) setting for a film is vital to its credibility. By integrating all of the visual and aural elements, filmmakers can achieve this more effectively. Throughout their film careers, the Coen brothers have used a wide variety of aural ingredients to partner with the stylistic visuals that decorate their films. Their ability to utilise music, dialogue and effects creatively allows them to portray or symbolise a given location without having to be geographically accurate. Joel and Ethan Coen achieve this by generating film worlds that contain aural allusions to real locations and sonic elements with cultural associations. In doing so, the Coens create environments that are plausible for their eccentric characters and imaginative storylines. It is through this process that their 'false' worlds gain greater 'realism'.

APPENDIX D

INTERVIEW TRANSCRIPTS

The following interviews were conducted over the phone or in-person. All of them were recorded and then transcribed in their entirety. For the purposes of this thesis, they have been edited to remove superfluous talk (e.g. false starts, verbal fillers, extraneous banter, etc.). This has in no way compromised the integrity of the interviews.

Transcription of the first Interview with Skip Lievsay (19 June 2003)

BARNES: *The only background information I've found on you is in Lobrutto's Sound-on-film article and it's really general and minimal, so I just wondered if you could tell me how you went from architecture to sound?*

LIEVSAY: OK. When I was a kid I worked as a draughtsman for the telephone company, which was mostly schematic drafting - we did a little precision drafting - but it was mostly representational type drawing. And that was my strength. As a ranch hand at the time, I could draw blueprints and that I also felt was a foot in the door towards becoming an architect and going to school for architecture. I thought I would need to know how to draw so I worked as a draughtsman for around four years.

BARNES: *Makes sense.*

LIEVSAY: Also along the lines of becoming an architect or going to study to be an architect, I worked as a field engineer on a construction project for around three years - on a single big building project. So there I did work with blueprints and I made blueprints and worked in the field. Unfortunately, at that time, the recession in the seventies in the States was happening. So it kind of wiped out any construction of all types. No one was building spec buildings and very little real government or other types of construction were halted.

BARNES: *These were all commercial buildings.*

LIEVSAY: Mm-hmm. And all the architects on the project I was working on were either let go or the few that stayed on were not being paid. So it was kind of a dismal period. How I got that job was that my friend Danny's father was in charge of the project, so he explained to me one day that although he thought it was a good job, right now it didn't seem like a good time to be studying to be an architect.

BARNES: *Doesn't sound like it at all.*

LIEVSAY: No. So during that whole period I worked with my friends at two local universities building sets. I would leave work at 3 or 4 in the afternoon and go to these two universities and help them build sets for the theatre department.

BARNES: *What area this was?*

LIEVSAY: It was in Westchester, New York. I'd say just around 25 miles north of Manhattan. There's a state university there and there's a place called Manhattanville College. And my high school art teacher was running the theatre department at Manhattanville College. So I made some friends there and they said, "Are you was interested in pitching in and helping the kids build their sets?" Again my architecture background and my drawing background helped so I could help them interpret the blueprints and help build the sets. And that was my first real transition from building buildings to building theatrical events. I then met some people who made commercials in New York. And I actually had no idea that they made films in New York City, but I knew they made commercials so I tried to parlay that around - banging on doors and handing on my little résumé.

BARNES: *But you were only asked to build sets?*

LIEVSAY: I thought it felt like a pretty close translation between building theatrical sets to building TV sets. So then I met some more people who were making an independent film. I really didn't have the slightest idea what that meant. At that time in New York City everybody my age was totally into movies - going to movies was religious practically. Everyone lined up for the new Woody Allen movie, or LAST TANGO IN PARIS, THE PASSENGER, whatever exotic film came along and there was really much going on Hollywood-wise. You know, HEAVEN'S GATE or COMING HOME or APOCALYPSE NOW - those were even later really. So the period I'm talking about is...

BARNES: *72-73-74.*

LIEVSAY: Right. Everyone was a fan or a student of film but in my group no one knew anything about the business of filmmaking in New York City. And there wasn't really a big awareness - there were some programs like NYU had a program and Columbia had a program and as it turned out later the first film I'd worked on was directed by this Iranian man and the people that he had hired to edit the movie worked at NYU in the film program. I then found out there were all different types of film programs at NYU - graduate, undergraduate, continuing ed., six-week intensive and crash courses. But I didn't know about any of that and I met this guy and he said, you can be the office boy - the gofer. I worked on this movie which was a very low budget, exploitation James Bond type movie - full of sex and violence - we blew up a car. It was pretty shabby stuff and thankfully it was never released. Anyway, it was cool. I worked on it from the script out, along with these two other guys. I sort of got coffee and ran around for these two young guys - little older than me - who corrected and refined the script, checked the shooting schedule, hired all the people, cast the actors and went on locations. I also worked on the movie in a kind of nominal way - actually building a few sets, screwing around during production and then I worked in post also. As I was the intern in the editing room, I actually helped them to splice the negative and pick some sounds. I also went to the mix and then I hung around for a horrible bad period when the movie couldn't be sold because it was so poor. But it was great because I got to see the whole process from pop to pop and I can't say I enjoyed the production that much, but I did enjoy post-production much more. The editors that I worked with were both instructors so they were very helpful to me.

BARNES: *What was it that made you enjoy post-production more?*

LIEVSAY: I'm not sure. I think I preferred figuring out what went where, how to splice it together, what was good and what wasn't good based on criteria. I was fascinated by the whole process. I think but I can't say for sure but you bet at the time I had no idea that the sound and the picture were separate - as most people don't know today.

BARNES: *Yeah, that's true.*

LIEVSAY: I think most citizens think that the music and the sound effects all come out of the camera in some weird way. A lot of people don't realise that the film is edited. You say, when it cuts to that shot from the wide shot - they say what are you talking about and we say, there's one angle and it cuts to the other angle and they go, no, it doesn't. They see it in their mind's eye but somehow they ignore the various angles and they think of it all as one piece. I've had that discussion with a lot of citizens. Well, actually, Walter Murch

was talking about this at the [School of Sound] - the idea that you can take all these angles and cut them together and still audiences see it through the camera's eye, as if it were one long take. In fact, no one experiences life like that.

BARNES: *Yeah, that was interesting.*

LIEVSAY: So anyway, we edited the movie at an old film centre building on 9th Avenue in Manhattan. I became friends with the people who owned this space and I ended up working there. They offered me a job and I worked on a whole lot of Saturday Night Live films as an assistant editor.

BARNES: *On Loblutro's list it says you worked on POLYESTER. Was that your first big film with nationwide release?*

LIEVSAY: That was one of my first successes. Not only was it a fabulously fun and exciting project to work on because John Waters is such a phenomenally great person and interesting and talented and completely and utterly inventive and creative, but also it had a lot of notoriety which he already had brought with him and plus it was an interesting and notorious movie. I did work on a bunch of movies before that. Some of them had wider release like there was a movie called NO MORE NUKES, which was a performance film. I worked on that as a sound editor. I worked on a bunch of stuff as a sound editor. My first real movie that I did myself or at least as Supervisor was called DON'T GO IN THE HOUSE. I can't remember too much about it. It was a pretty brutal horror movie. And I do also remember I worked in the picture department editing room - so when they rapped at the end of day at 6 or 7, I would start my day. And I also remember the weekend before the mix began, they restructured the movie and I had to seriously recut all of my units. There were some dialogue units and some other units that I delivered on, but most everything else I took apart and made loops of the [backgrounds] and they had to load 35mm loops of atmospheres because I didn't have the time to recut all the units. And because of this the movie had a continuous atmosphere consisting of maybe a dozen sounds.

BARNES: *But did it work?*

LIEVSAY: I think it all worked fine. It was an interesting project sound-wise because it was entirely looped. It was done in a European style with a non-blimped 35 mm camera and the track they recorded became the guide track for the looping basically because it was thoroughly unusable. I walked the foley myself and all the sound effects and everything, which I recorded myself, was entirely made up. It was a very abstract kind of a movie because

it was so twice removed - not only did it not come out of the camera, but it didn't come out of the Nagra.

BARNES: *So you did that all on your own?*

LIEVSAY: I had no help at all. I'm not boasting about that nor am I complaining. I'm just documenting the case. Well, it's kind of the ultimate test of your ingenuity and skill. Even if you have a lot of time, it's even tough to pull it all together. I even did my own transfers and built my own units. It was pretty hard work. Throw that together with my 7 to midnight graveyard shift. I think I probably slept in the editing room occasionally. No, it was so exciting I couldn't sleep at all. It was very fun to do. I still hold all of that. I prefer doing stuff myself. It has to do with my inability to thoroughly communicate my ideals. Like now I'm mixing movies because I find it too overwhelming to explain to mixers what I want them to do. I'd rather just get in there and do it myself. But I don't mind.

BARNES: *So can we jump ahead to the next one? Since again Loblutro doesn't mention it very much - how did you meet Joel and Ethan?*

LIEVSAY: I had worked with a producer named Mark Silverman over the years. He worked at the place where we edited DON'T GO IN THE HOUSE and the other one which will remain nameless and a lot of other projects - the NO NUKES work and the *Saturday Night Live* stuff and the TV versions were all happening at this place in New York called Phantasmagoria, which was an editing facility. Mark Silverman worked there on a bunch of projects and I worked with him on a few of them, and we'd become buddies. He got this project that I didn't know about until they had finished shooting the film and came back to New York for post. Joel and Ethan were editing the movie pretty much by themselves. Joel had worked as an assistant editor for some editors in New York, but I believe they cut BLOOD SIMPLE themselves. They were limited in their budget - they only had a certain amount of money - about \$10,000 for the sound editing. They were looking around for some help and Mark recommended me. I met with them and we got along brilliantly and I was more than happy to take the rate and run with it. The understanding was that they would pay me \$600 a week to edit the movie. We had a little extra money so I hired an assistant. I think we were able to pay him most of the time. And then at a certain point the understanding was that we'd run out of money and I would take the rest on deferral. We had a basic agreement that when the movie was released I would get some extra. On face value that seemed to work really well - it was only suppose to be an eight-week project and if it went beyond that I would have to take a deferment. That all seem fine, but the mix stage was based on availability. So the idea was if other work was allocated to the stage then we would be bumped and we'd have to

wait until the stage was available again. And, in fact, it ended up taking us six months to do the movie. Actually, I'm not sure exactly how long it was. It was a long time between when we first started dubbing and when we finished. It was wonderful, though. We had time to go back and change stuff we were disappointed with. We did that in a similar way where we recorded a whole lot ourselves. We made sound effects in our houses and in our backyards. We were able to go in and refine stuff.

BARNES: *Now did they do it with you? Or did you do it on your own?*

LIEVSAY: We all went to the foley stage together and had a wonderful time. The foley artist - Alicia - was wonderful. Most of it we went off and recorded and we tested the results on the stage. Some stuff we'd refine and some stuff we'd just pick and chose. And because we had an open-ended schedule, we had the luxury to be able to go back and change things we didn't like. That's the best thing about having a long schedule.

BARNES: *Yeah, I could imagine. I've heard you get a maximum of six weeks most of time, and that's even very generous.*

LIEVSAY: I've worked on some pretty long ones - quite a lot longer than that. Generally the forces involved the overwhelming desire to get everybody done and off payroll so you can end your rentals and the movie can get delivered. Also, of course, the stage is very expensive and the longer it takes - the clock is running - and it's very expensive. So neither of those were the case in BLOOD SIMPLE. No one was being paid. If we didn't want to work on one day, we could postpone or we could go back and adjust what we had. So I learned a lot as we went along. I learned stuff in earlier reels that we could use in later reels.

BARNES: *Were you and Carter involved in the re-mastering of BLOOD SIMPLE?*

LIEVSAY: Yes, we were. Everyone got to regurgitate their favourite part. Joel always wanted to trim the movie. The original version was actually about 10 or 12 minutes longer than the version that was originally released. For the new version, we went back at the end of the day and trimmed that down, recut and re-mastered it. Even that version Joel was perturbed with. My understanding is the prints had all been run to death and there were many requests for new prints or at least for a print to show. So I believe at that point Joel and Ethan had owned the movie outright and had decided that if they were going to make a new print they were going to refine it a bit. So they handed over a new version - we took the 4-track mono master of the movie and loaded it into a workstation. Basically, we replaced the

atmospheres with similar stereo backgrounds. A lot of the sound effects we replaced with stereo sound effects, except some charmingly wonderfully sound effects that we decided to leave in the movie. They are some very funny car sounds that really crack me up - so amateurish, but hey, we didn't want to make it into a new film, we wanted to make it into a stereo movie. It was key to put back in the music that they were planning to use in the original version that they could not afford or get the rights to. There was one song in the scene where the camera dollies over the bar and the original song was Patsy Cline's Sweet Dreams which is now in the new version. So when the dolly goes over the drunk, there's a bit in the music goes up and it plays very nicely. At the time they were making a Jessica Lange/Ed Harris Patsy Cline movie which was called SWEET DREAMS. So that song was simply not available, nor did they have money. So we put in a different song in the first release of the movie. And there are a lot of examples like that, where we had sound-alikes instead of the real thing because we couldn't afford the real thing. That is really the biggest difference between that and the four minutes that was cut out.

BARNES: *I've read in an interview with Carter Burwell things about his working relationship with the Coens. He says that they have no specific preconceived ideas about his work and they get along because they view life in the same way. He said himself that the paradoxes of life make it so much fun, and the horrible things in life are what make it really funny. This is something he and the Coens have in common and he also said that they are different from any other film enterprise he has ever worked for. Would you say that your experience of working with them is similar to those things Carter has said?*

LIEVSAY: I don't feel that I have that in common with Carter and Joel and Ethan. I feel like a facilitator to a bunch of alcoholics. I'm supplying them with the evil fluids and I think that our happiness and strengths are that I can interpret what they have in mind and make it into reality in their soundtracks. So I don't think I'm particularly on the same wavelength as them and I catch myself sometimes not getting it. I can think of a couple examples in their movies where I just didn't get what they were talking about and eventually it comes to me weeks later what they had in mind.

BARNES: *Can you give me an example of that?*

LIEVSAY: In MILLER'S CROSSING there's a scene with Albert Finney where in the scene there's a raid happening where a rival gang is shooting and blowing up one of their speak-easies - or the police are blowing it up, I can't remember exactly. So they're there in the office talking about the problems they have between the two of them and then these window-rattling

explosions start happening down the way. As I read it - I can't remember the exact language - I'm putting in thunder rumbles. I can't remember if it said thunderous or thunder, I just didn't get that it was suppose to be explosions down the street. And then it occurred to me later - we were trying to link up the window rattling with the explosions and that's a bit of mechanical issue not as much as a philosophical one as I had hoped to illustrate.

BARNES: *No, that's a good one. But, going back, do they have preconceived ideas about your work? Or do they just let you do your thing and then give you feedback?*

LIEVSAY: Oh, they have really very specific ideas. If you look at the movies and read the scripts you'll see that there's detailed information in the scripts that really does end up in the movies.

BARNES: *I have noticed things like you'd find in Mad magazine, like THWACK. I think you've mentioned that somewhere.*

LIEVSAY: Sure. Comic books. Mad magazine was something we all had in common. I wasn't as big a fan as they were, but nobody I knew knew anything about Mad magazine. But they do more than gratuitous sound references in their scripts - usually when a sound is noted in the script the sound is capitalised. They have more than that - they have very elaborate scenarios that are sound scenarios written in the page. Like BARTON FINK had a lot of sections that are sound-driven scenarios with no dialogue and with sound effects that have a consequence. And those are written in the script and we did them in the movie - it wasn't just a reference, but a real direction. We go about them in a pretty scientific way, where we try to figure out what they have in mind. I usually discuss them with them and then I usually make stuff, which they review and we then refine. They prefer to sort out the material before we go to the final. So we used to run stuff in the editing room, now we work it out during the temp mixes. So we screen stuff - when we do a temp mix for a screening or for whatever purpose we have the material available and it's understood that we review the material at that point. They like to be able to see how sound effects are going to work in the movie. Sometimes when we make sound effects they may put into the cut because often the cut is dependent on sound effects, particularly these scenes that are sound effects driven. But they at least like to be able to review and improve and refine before they go to the stage.

BARNES: *How much do they discuss with you in pre-production? Or do you have any discussions then?*

LIEVSAY: It's curious. They are in pre-production now [on THE LADYKILLERS]. They are going to start shooting in a week or so. I talked to Joel a couple of weeks ago. We had a screening on the Sony Lot for Barry Sonnenfeld of the previous movie, INTOLERABLE CRUELTY, because Barry wants to hire Catherine Zeta-Jones for his next movie. So we screened the movie - which isn't finished yet, by the way, we going to shoot a couple of scenes. They are in pre-production for the next movie and while they are doing that they are going to shoot the new scenes for the previous movie. So we talked about LADYKILLERS and we talked sound issues because it's a somewhat low budget movie and there are some sound issues to do with low budget shooting. One thing in particular is there's a scene they're going to shot on a sound stage, which takes place on a big bridge over a river. They are going to shoot that with a lot of fog and I advised Joel that the fog machines make a hissing sound. Having read THE LADYKILLERS script I know most of those scenes will be MOS or at least without talking. We can reproduce sound effects, but there are a couple of scenes that have dialogue. I advise him that he'd have to turn the fog machines off during the dialogue or we'd have to loop those scenes. I used to take a script and highlight it based on concerns about sound effects, but they've so thoroughly ignored that that I've stopped doing that. I do usually go to location at least once. The last time I went on location was for INTOLERABLE CRUELTY. They were in Las Vegas so I popped over for the day and I watched them shoot a scene that had too much noise and eventually in the movie has too much noise. One time I was on location for O BROTHER, WHERE ART THOU? and there was a scene that was meant to be shot to playback but the actors were not actor, they were performers - it's the three black grave diggers scene. We tried playback and they did have a clue how to do that. So after one take, Joel said let's just do it live. We realised that there are three men standing in front of three big holes in the ground so we put plant mics in each grave in front of each actor and recorded it with three microphones for a majority of the takes and that worked pretty well. I wish I could go on location and be there all the time, but sometimes it's impractical and not necessary. I've been there other times when it's been utterly pointless for me to be there from a sound point of view. I just like to go, you know esprit d'accord, be there in case something comes up and just as a kind of joke of going to their shoots.

BARNES: *Does it in any way give you a better idea of how to design or create the sound?*

LIEVSAY: Sometimes - sometimes we talk about things when I'm there - or often just being there on location and seeing what their doing gives me a better idea, a more thorough understanding of what their doing - a weird kind of sense of intimacy with how they're doing the movie. Not always.

BARNES: *Going back to preproduction, to what extent are you involve in discussions. I've read they generally get together with their core people, but as in most of the literature they neglect to mention sound people.*

LIEVSAY: They are not very generous in that respect. I know that there aren't many things that they can get ruined on location that they can't be fix up later. I'll give you an example. In FARGO William Macy's car dealership office has a window and behind the window is our many many car-bys - like a highway out there. At one point we wanted to hear those sounds so one of our mates had to go and cut car-bys for all of those scenes. And we made a big joke about that - if they were going to have that anyone could've sat there [before post-production] with a DAT and recorded those background sounds. So they all thought that was funny. The next movie - THE BIG LEBOWSKI - had a car scene in it and they actually shot sync for the backgrounds of some of the takes. But when they handed them over, most of takes didn't have that companion track so I sent the reel back to Ethan saying there must've been some mistake because there were no tracks for the backgrounds and obviously they had chosen the wrong takes. Well, he thought that was really funny. Anyway, Lou had to go in there and cut car-bys. That's like a big joke - that's become one of his jobs on their movies - to cut car-bys. I'll give you another example. In THE MAN WHO WASN'T THERE (THE BARBER MOVIE) the one day that they had up here where they shot the exteriors, where they had all those period cars. The sound crew was laid off for that day and they shot all that stuff MOS. They didn't bother to shoot wild track or guide track - they just shot it all MOS. The one scene in the movie with all the vehicles - all the difficult vehicles - was all shot MOS.

BARNES: *But are these more exceptions then the rule? They are generally quite conscious of sound and preparing their films for sound.*

LIEVSAY: I think like most people they are most concerned with recording the words. They are not averse to nice production sound but they do have a pretty short fuse when it comes to recording live sound effects or stuff that they know we can duplicate later. They still operate in a pretty guerrilla type of production - relatively.

BARNES: *In what respect?*

LIEVSAY: I think they are, and don't think unreasonably, just concerned mainly with recording the performance of the actors. Because they knew that we can duplicate most of that stuff later even if it costs more money. You can probably do a calculation and be fairly confident that it costs less money to

duplicate it later than it does with the whole crew standing by as you shoot sound effects or whatever it is.

BARNES: *Going back to what Carter said, are they different from any other film enterprise you have ever worked for?*

LIEVSAY: Well, yeah, but I think that's fair to say about everybody...I think they are exceptional because they write films that contain so many interesting sound scenarios. The way they make movies I don't think is particularly revolutionary. I've worked for Martin Scorsese, Spike Lee, Jonathan Demme and others and I'm sure that all of them have special things that they make happen. I think all those people that I've worked for are all pretty much interested in the performance of their actors and of that one-time-only creation of their opera-thing and trying to get it recorded by the cameras. They all know that we can produce those sound effects ad nauseum when the time comes. I would guess that Carter is talking about a philosophical rather than a mechanical thing.

BARNES: *I can't remember the context exactly, but I think he means his working relationship. How he gets on with these guys.*

LIEVSAY: In the collaboration they are truly unlike anybody else - they are very collaborative and very inclusive. They are very elastic when it comes to embracing other people's contributions. Even though it seems at face value that they are very demanding and they are very rigid, the fact is that their demands and expectations are flaccid enough to include your weird idiosyncratic maunderings of their concepts. Like there are a lot of cases I could cite in their movies. I'll tell you one - in BARTON FINK around halfway through the movie where he's totally stalled and has writer's block and can't come up with anything, he goes to Lipnik and admits that he doesn't have anything and they go "get me Ben Geisler", who is played by Tony Shalhoub, and they show him some wrestling pictures. So they send him over to a screening room and they show him these wrestling dailies and we had to have something there that reinforces the utter panic and desperation he's feeling - he has no idea what they want and it's inaccessible to him. So the camera dollies in to his head, which is the old cinematic cliché of getting internal and getting into his thoughts. We have the sound of the dailies projected in the room, which is just the same thing over and over again. I wanted to have sound that goes from point A to point B - point A would be the sound of the dailies and point B is eventually the sound of the hammering home that he is completely lost, which is the sound of the bodies slamming on the canvas. That is just like the button that shows you are completely lost - in fact, [body slams] become the transitional sound as we go from that scene to the next. So I wanted there to be a sound that would be a

transitional texture from the raw dailies to the sound of those huge explosions. I made this association of a gravel-turning machine - a big metal cylinder with grinders in it, where the big rocks go in one end and the gravel comes out the other. It's a kind of percussive, explosive, slightly rhythmic but arrhythmic crunching sort of rock-splitting type of sound. So I feathered that in and with EQ I made softer in the beginning and harsher at the end and of course with volume we just let it get louder and louder. So to me that was the stepping off to the dolly in. We did the body slams, which start off being sync sounds and then deteriorate to these bombs. I wanted these two sweeteners. Towards the end when you really close in on his eyes I took a chainsaw sound and I filtered it so it's this roaring low sound and then at the very end I took this European train whistle sound and I did this reverberant type of thing, which became a topper and a nice transition because the bomb sound didn't grab the reverb very well but the European train sound was a nice high sound to grab the reverb and echo out of the scene...We got to reprise that sound at the end when the dead girl's there and Goodman comes in and he brings him into the bathroom and he tells him to calm down and he passes out and hits his head on the wall. Right then you'll hear the light steam train whistle. That was a little reprise I had done. By the way, that would be my definition of sound design. The one I like to use is that you can't record it, so you have to make it up. The only way to get it is to reach in there somehow and drag something out and make an association.

BARNES: *How much is the choice of a particular sound your decision? In other words, how much influence do you have on the final soundtrack?*

LIEVSAY: Well, that's just a pure and simple sales job. I made those associations and they wanted something like that to happen. It was detailed in the script to one degree or another - there was something about how we are going in his head and the sense of desperation. It was perfectly obvious regardless of whether it was in the script or not. For me that was one of the cases where I understood the information thoroughly. To me from the get-go I wanted to have sounds that reinforced the desperation and I wanted to help that transition because it was a little too easy to just use the mat thumps - I wanted to just sweeten that up a bit. So that led me down a path and those three abstract elements were what I came up with on the day.

BARNES: *But in general do you ultimately have the decision on the particular sound. I know you said it's written in the script but it doesn't exactly say use a European train whistle.*

LIEVSAY: Well, I think you can safely say that about all sound design. If you can't go and record a sound effect for it then somebody has to create it, someone has to come up with it and somebody has to make an association.

Like it's not a bird background and it's not a car-by but we have to have something here, what's it going to be. So whoever creates the sound where no sound exists are automatically (A) the author of it and (B) the sound designer of that section.

BARNES: *Are they generally happy with the first example you give them?*

LIEVSAY: In this case I don't remember them being totally on board with that idea until we actually dubbed it. As I recall there was some nervousness about that sound - they know, as all directors know, they can take out that sound, but in this case as in most cases, they want to have the extra mojo happening so they are generally supportive of that cut type of manoeuvring.

BARNES: *At the School of Sound you mentioned how you worked closely with Carter Burwell during BARTON FINK and I think I remember reading that it was originally not going to have any music. I just wondered if that's true, if it was suppose to be a sound designed atmos.*

LIEVSAY: That was a request for SILENCE OF THE LAMBS from Jonathan Demme. I don't remember if that was the case with BARTON FINK or not. It was certainly developed that way.

BARNES: *It was sound-centred rather than music-centred?*

LIEVSAY: Yeah and the music that Carter did do was wonderfully open and more modal than melodic.

BARNES: *So obviously you had to collaborate very closely with him on that one - much more so than the others? Would you say that about it?*

LIEVSAY: Yes, we definitely compared notes because in a lot of cases there was a understanding that because most of the material was covered in the script, there would be sound effects for most of those events. Joel and Ethan didn't want to have to wrangle music that wouldn't work with the sound effects - and Carter in his own clever way wanted to make his music organic to the movie and the sound effects that he knew would be there. What we did was we sent each other sketches and we worked on our preliminary sounds and made them copies and little dubs and he sent us over examples of his music.

BARNES: *Is that typical?*

LIEVSAY: No, that never happens.

BARNES: *Do you mean not with anybody else? Like, other composers? Or do you mean you've not had an experience like that other than BARTON FINK?*

LIEVSAY: What we mainly do now is work it out in the temp and that's the way most movies are done now. Rarely do we get to spot the movie with the filmmakers anymore. We mainly make sound effects to give to the picture department and during the temp we work out everything else. With the Coens and Carter we still spot the movie together. That rarely happens even in the most gracious filmmaking communities that they spot music and sound effects at the same time. And even if they are being done simultaneously it's pretty much an armed encampment on both sides of the room and never the twains shall meet. Unfortunately, that's the nature of the beast that most people are clamouring for a few yards of real estate. For sound effects, we mostly want to survive the music juggernaut. There's nothing in it for us, as of course in the music department, because they get paid by the note to a degree...I would never accuse my brothers in musicland of a mercenary approach to doing the soundtrack, but there is certainly a lot of music in the movies. A few exceptions, like gunshots and explosions can override music, but I have worked on many movies where those were taken out in lieu of the music track. That's the way it's evolved - good, bad or indifferent - there is a kind of us against them mentality and unfortunately, it tends to make the mix an unhappy period for some people. I try not to buy into that, but that's the way it is most of the time. It's always sad to see somebody's hard work being removed in lieu of someone else's hard work...So on the Coens' movies we always spot together and Carter and I always try to divide and conquer and Carter and I try not to get in each other's way. And at least when we are working the same areas we try to collaborate as best we can...We don't fight. We have a wonderful relationship. I've known him for a long time as you probably know and we have a healthy and constructive regard for each other's contribution and we try to do what's best for the movie and try not to let our personal agendas get in the way.

BARNES: *I also remember from the School of Sound - and you may have said it before - that you like collecting fresh sounds...*

LIEVSAY: I do. I don't like using library sounds. I do like having a library to make stuff with, but I don't like using realistic sounds over and over again. The only thing I don't like to record is ordinary gunshots. I don't really like gunshots...we've recorded gunshots for a bunch of movies and I just find it to be unproductive. Whatever we think it's going to sound like it is hardly ever what the directors want to have. It's much easier to have an assortment of sounds and get everyone to agree on those sounds. I always think cars can always be made better if they are tailored for the movie. I rather have new recordings than try to recycle. I like to record backgrounds. I love recording

foley - we call 'in situ' foley - where we go to a location and record sounds - footsteps and other stuff in a location. I'm a big fan of worldised music - like if you have a car-by that suppose to have a boom box ghetto blaster, I'd much rather get the cue and record it live and not try to futz it with reverb. It just works so much better.

BARNES: *So when you put these sounds to picture do they correspond to a narrative theme, or a camera motion, or characters' emotions or just basically the script? What's the method to the madness, in other words?*

LIEVSAY: I just feel all these assignments are about realism. It's not about sound design, it more about creating a soundscape. Most of it is pretty subjective within the camera work of the scene. I've worked on a couple of scenes in GOODFELLAS and also CAPE FEAR where there were these elaborate camera moves around cars. Like in CAPE FEAR, they are in a panic to leave the house because they know Max Cady is in the neighbourhood and they are trying to split and go to Florida. They come out of the house, down the walk and into the car - the camera's sort of going around the car as I remember and then as we drive away, we see that Max Cady has strapped himself to the bottom of the car. To me that's a real car event - even though the car is just sitting there - I don't want to have a static idle; I want to have a sound. So we shot a track where we had a car idling and I recorded a walking manoeuvre of our sound rig, trying to imitate the perspective of the camera. And within the structure of the shot, the car goes into gear and drives off. We tried to recreate the camera's point of view of what that sound would be. We did the same thing in the beginning of GOODFELLAS where he gets out of the car, walks around the car, opens the trunk and the guy's still alive in there and then Pesci comes over and stabs the guy. We did it totally from the point of view of the actor. So that's another reason why I like to record the stuff - because it's much easier to get a realistic sound based on the picture - it relates so much to the camera move that it would be difficult to create that afterward with recycled sounds.

BARNES: *Do you do anything you'd call referential with sound? Like there's a possibility that the ceiling fans used in BLOOD SIMPLE could be referencing APOCALYPSE NOW?*

LIEVSAY: I've heard that association many times. I don't know if it's a reference for the Coens or not, but what I do know is that one of the reason's why that particular sound became important is because it's a story point. I'm sure you know at one point in the movie [Abby's] at Ray's house. She's left Marty. She's moved in with Ray and she says I'm not going to put you out of your bed; I'll just stay here on the couch. He's got a concern with that and she asks, do you got a girl? She thinks there is another woman. So the phone

rings - she picks it up and you hear the fan sound. It's intercut. We had to make the sound play through the phone. That's how he knows it's Marty. And that's why the fan had to have an elaborate sound. And that's how that whole sound design component evolved...I don't know if that was referenced to Marty Sheen and APOCALYPSE NOW or not. I'm sure they were aware of it - APOCALYPSE NOW was in '79, right? and BLOOD SIMPLE was in '82 / '83 roughly so obviously they had seen it. They started making BLOOD SIMPLE probably around 1980 so even then they would have seen. Who knows? That's a good question.

BARNES: *Would you say that you've ever consciously done a sound reference?*

LIEVSAY: Well, yes. In BLOOD SIMPLE the chopper-bys are directly from APOCALYPSE - that's direct reference. Also, in BLOOD SIMPLE, I was doing recordings of traffic sounds outside my window and a car made a curious sound and for some reason we decided that sounds like a cow mooing. So we put that in BLOOD SIMPLE and we now refer to that as the cow-car. Subsequently we put that in every other movie - the BLOOD SIMPLE cow-car. That's something we try to do all the time to amuse ourselves.

BARNES: *I know you have a lot of in-jokes, like the 'hubcap'. They seem to be an obvious use of repetition in all of their films.*

LIEVSAY: Well, there are a lot of good examples - the cow-car is one of them. I think it's actually in all of them. I don't think it's in O BROTHER but we always try to stick it in somewhere and it always gets a laugh. Sometimes we agree that it's not always necessary but we try to sneak it in there just for a laugh. Most of the people who have worked on their movies have worked on several of them, so you don't even have to ask for it - the hubcap - I'm not sure how that got started, but the idea that anything you can knock over and it wobbles soon became fair game. There are a bunch of them in the movies - we always put them in but not all of them survive. Those are usually foley and the foley guys.

BARNES: *I know that you've mentioned that the doors in BARTON FINK were meant as a joke and then Ethan liked them and you ended up putting seventy separate door sounds in the film, or something like that.*

LIEVSAY: That's right. That was purely a joke. That was something I stumbled on and I stuck in a few places as a little funny sound. [The Coen Brothers] laughed and they thought that it was funny. They hadn't realised it was a joke, so when it came to the next sequence and they weren't there,

they said, where's the door whoosh sound. We had to lay up that sound for all the doors of Barton's hotel room.

BARNES: *I actually noticed in THE HUDSUCKER PROXY that the door to go into Paul Newman's office had the same whoosh sound as the BARTON FINK doors.*

LIEVSAY: Mm-hmm. That had the same sound. Those were key sounds. I believe they noted in the script.

BARNES: *So that was deliberate?*

LIEVSAY: Yeah. I don't think they said we want the BARTON FINK whoosh, but I think they said entering the chamber - basically whenever you have transition you have an opportunity to show an audible transition. That was an interesting scene because it had that clacker - that little perpetual motion thing on his desk. And of course, it was going at different tempos - the picture wasn't necessarily cut to the rhythm of that, but it was in a lot of shots. The sound designer, Eugene Gearty, and I worked on the movie independently and as it turned out we pretty much divided it up ourselves by coincidence - I didn't want either of us to become restricted so we just worked on the stuff we liked. At the end of the day one of the things that neither of us had done was that clacker. He said I'm not touching that - it's going to be a nightmare - you're going to have to do that and I just put it together in an hour - screened it for them and it was fine. That was one of those challenges that turned out not to be so challenging.

BARNES: *But in general it seems like they like to use repetition of audio material - not just over different films - but also within the same film.*

LIEVSAY: That's interesting. That just might be the nature of the beast - a form follows content type of thing. If you have a scenario and it has a beginning, middle and an end, one of the things that you do to reinforce the geography is use sounds that recur. That might be the ethics of life scenarios.

BARNES: *Also at the School of Sound you mentioned that you didn't like silences. Do you mean where sounds are omitted or where you have nothing?*

LIEVSAY: No, I meant I didn't like to work with silence. As a Sound Editor I don't work with silence I work with sounds. I don't object to the idea that silence is good for movies, but what I do object to is the idea that there's some kind of scientific holy grail of how you can make silences that will make the audience react in a certain way. I have heard that from a whole bunch of people and I find that to be (A) not substantiated with fact (B) boring and (C)

a lot of hot air. So as a mixer I am happy to use silence to give the audience a break, it always good to have quiet periods before the loud periods then the loud periods don't have to be very loud to still feel very loud. I am always trying ways to be conservative with the soundtrack so the audience doesn't run screaming from the room. It's also the release idea, where you have loud scenes followed by quieter scenes. I am very much in favour of dynamic soundtracks where you have loud areas and quiet areas.

BARNES: *What about omissions? Like in RAISING ARIZONA where you have the motorcycle and as far as I can tell no literal motorcycle noise? And I think at the end of THE MAN WHO WASN'T THERE there's nothing when you could hear the crackle of the electric chair.*

LIEVSAY: We do have an abstract sounds there - most people think it's part of the music - but we do have some abstract frying up type sounds that are meant to be representative. Listen to it with this in mind - it's just the piano - there's no other orchestra there - there are a lot of other sounds - there is a sort buzz-whistle sound that Eugene Gearty created for that section. Certainly the flying saucer is very abstract - it's certainly a quasi-musical event - those sounds we made with synthesisers which is something Eugene and I like to fool around with. We use the theremin and other stuff like that. To us it was part of the abstraction because it was period music that automatically leads you to a theremin de facto. Then the other sounds we made with other synthesisers were meant to be an imitation of that period synth kind of sound. Which is something the Coens talked about from the beginning whenever they had the chance they would say that there's suppose to be a spaceship and both of them would go whoooo-whoooo and they would imitate the theremin sound.

BARNES: *So what about the motorcycle?*

LIEVSAY: Well, that was a mix issue - that was an idea where we had a lot of sounds to work with - we had all the motorcycle sounds, the music and the voice-over. We tried it with the motorcycle sounds but I'm fairly certain that Joel and Ethan had made up their minds from the get-go that they wanted music and voice-over and no sound effects. Because it was pretty much decided from the beginning that we wouldn't use those them - once we got on the stage I mean. So we took away the motorcycle sounds. It was meant to be a dream so the easiest layer to remove was the realistic motorcycle sound. So instead we used a little bit of foley - we had a couple of whoosh-bys and a couple of gunshots and a few odds and ends, which were easy to put in because they were sort of punctuation. That was just a final mix issue - that wasn't a sound edit decision. We all begrudgingly let the sound effects go...I think that was one of my first lessons in the school of making a real

movie, where you have to decide what is good for the movie and being literal isn't totally important, particularly in a dream sequence. I've worked other movies where we have huge action sequences and if you try carry everything that is happening, you end up with a wall of mud, which is completely uninteresting and boring. I always refer to T2 which is a brilliant sound editing and mixing job, where you could only hear the sounds of what was in the foreground and very little else - it was just brilliantly handled and that's my touchstone whenever I'm doing a sequence like that I try to focus on the up-camera stuff and let the other stuff go. So in that case what was up-camera was a dream and the music and the voice-over telling the story and the other stuff - the more abstract it was the better because that made it more dream-like.

BARNES: *You mentioned that they might have to do some looping on their current film, but do they use ADR very much?*

LIEVSAY: No, not really. Usually there are only 20 or 30 replay lines. Very few.

BARNES: In light of DOGME 95 and their extreme austere use of the production track, how much of the production track do you try to keep for the final soundtrack?

LIEVSAY: We try to use all of the production track for every scene. In fact, when we don't have production we try to steal production track from other similar scenes. There is kind of a documentary aspect to it which functions to document the actors' performance - it's really easy to cement and make permanent the event when you use the actual track - bearing in mind that the director is always looking at the production track for months and months - it's kind of a comfort level that's hard to duplicate. In one way it's easy, it's inexpensive and I almost always prefer to have production at least as a foundation and I also think it's a good trick to top sound effects and foley. Sometimes we'll take a production, remove certain footsteps or production sounds, and we'll replace them with foley. You also have to remember that their movies exist around dialogue. It's not like a Schwarzenegger or Stallone movie where it's all monosyllabic one or two line scenes. There's always a lot of stuff going on dramatically. I think of almost every scene as a production event. I like the idea that we are helping to document the performances and I don't want to have to re-orchestrate or try to convince the filmmakers to do something they aren't used to.

BARNES: *Doesn't it have to really clean then?*

LIEVSAY: No, I don't like that clean thing. I have heard production track where they clear away everything that isn't talking. Many movies - I'm thinking of SIGNS where I could tell that production track had been cleared with exception of the words. I hate having to recreate all of the nuances in foley - it's very difficult to do and very expensive and I think pointless. I like the idea that the actors are in a space and that they're not floating around - like when they move, when they get up or sit down or walk around there is a corresponding sound. Maybe that was done on that movie as a stylistic idea - I don't know.

BARNES: *Do you have conversations with the recordists before post-production?*

LIEVSAY: Well, I just saw Peter Curland yesterday. We had a sound department discussion and we were talking about some scenes they were going to do playback for. We were going to advise them on how they should shoot the music for those scenes. So the answer is we often have discussions, but to-date we have never had the opportunity to go through a whole movie with the sound department and figure out problem areas and try to find solutions to issues. It just doesn't happen very often. It's like the visual effects discussing with the [cinematographer] how they are going to light a scene based on how they want to put the visual effects in later. That's even a more profound relationship - more integrated. I mean we know over the years the production sound mixers are trying to record the dialogue and nothing else seems to matter. We try to get them to cover events and record wild track, but they also don't have the time. No one knows better than Joel and Ethan the consequence of not recording complete production sound.

BARNES: *How's that?*

LIEVSAY: Like in THE BARBER MOVIE where they didn't bring the sound crew for the cars. So they we had to go and record them all. Same thing in MILLER'S CROSSING - we didn't have adequate track for those old cars, so we had to go record a bunch of old cars to fill in. I think they'd probably counter by saying they saved \$50,000 by not recording sync sound that day and it only costs you \$2,000 to record the sound effects to cover. Even though we didn't have good sync takes that have good sound effects, the movie got made and maybe it was cheaper to do it that way. That's OK. That's part of the formula. It's not all about art.

BARNES: *Would you say your sound effects have any extra-filmic meaning?*

LIEVSAY: I wouldn't say that. In the service of the movie - we don't aspire to anything more than that.

BARNES: *It's just that you can read how music is used in referential or figurative ways. It's a lot harder thinking about sound effects - though they can be positioned and used to enhance the narrative, they can also have a greater value than just simply being a knock on the door, if you know what I mean?*

LIEVSAY: Sure. There's no doubt that we are always trying to create atmospheres and scenarios to propel the drama or action of the movie - whether it's subtle or in your face big sound effects - it's almost always referenced to projecting and telling the story. In that sense a spooky atmosphere in not a literal scenario can make a big impact or within a scenario like SILENCE OF THE LAMBS where we have a lot of scary sound effects that help sell Clarice's fears walking around the basement trying to find the killer. That's a pretty obvious assignment. But of course there are other scenarios - like the BARTON FINK door - the reason why I thought of that was that his room within the hotel was a vacuum and that nothing entered or escaped - no ideas - nothing could flow in or out of that room. It was like a sealed tank, so that if you would open the door the sound would rush in. I think a lot of the stuff within the movie was reinforced with sound, but maybe not in a totally conscious way.

BARNES: *Could you tell me about the position of the sound editor or the sound department in the industry because in everything I've read, there is nothing up-to-date. Most thing's written about sound is relatively old now. They are still saying things about sound being the poor cousin to the visuals and all the other departments. Is it still looked at that way?*

LIEVSAY: I would say it is generally considered by the establishment a less profound and significant contribution. Certainly, music is considered to be more artistic. You can figure visual effects are considered to be more profound and have a greater artistic and creative assignment. The establishment tends to look at that as they would a leading actor. The reason why people go to movies has to do with the reason why these people are being paid.

BARNES: *Is there any more respect being thrown your direction?*

LIEVSAY: I think there's a general acknowledgment of the quantity and the quality of sound effects in a movie. I think most of the savvy establishment would agree that if you have a test screening with a full-on 5.1 temp mix then you're going to score better than if you had a three-track stereo or certainly a mono temp mix. There's a certain level of movie that requires a certain level of soundtrack. Everyone acknowledges this is a crucial part of

the enjoyment. No one would deny that E-ticket movies are greatly enhanced. I don't know what the percentage would be, but everyone knows it's more fun and the audience is much excited when there is a wide and interesting soundtrack.

BARNES: *What about directors? You've obviously been fortunate enough to work with people that are more sensitive to that.*

LIEVSAY: I can only think of two examples of directors that don't care about sound - David Mamet and Woody Allen - they both care about hearing the words and music. The vast majority of filmmakers, especially those that go into film school have a healthy understanding of soundtracks - how to make them and what they can do - and every director that I've ever worked with - I guess they are hiring me for one reason, that's why I get to hear the spiel so often - how interested they are in sound effects and sound design and how they have all these big ideas for sound design for their shows.

BARNES: *But is just a spiel, or do they actually have ideas?*

LIEVSAY: Well, some of them genuinely have ideas - certainly the Coens and some of the more established directors - it's obvious that it is more than just lip service. I have worked with some people that talk at length about sound design and it turns out all they're talking about is footsteps or realistic traffic sounds, or music. I don't mind - I don't care - particularly as a supervisor-slash-mixer I know that my role isn't just limited to weird sound design and ethereal oddball stuff that is hard to describe - I know there's a lot of other business involved in making the soundtrack and it's certainly not up to me - as I said I'm an enabler.

BARNES: *In my paper, do you want me to refer to you as a supervising sound editor or sound designer or a mixer? Do you have a preference?*

LIEVSAY: It might be safer going with supervising sound editor/mixer, but it's probably easier to do that by film. If you are talking about movies where I've done sound editing and mixing on you might want to refer to it that way.

BARNES: *What do you think of the term, sound designer?*

LIEVSAY: I think that's a pretty high and exalted position and I do think it refers to those abstract things that you have to make. I don't mind having that on movies where I do that, but I've rarely worked on a movie where I've just done sounds. SILENCE OF THE LAMBS is one of the few movies where I just made sound effects. The job involves much more work than just trying to create oddball sound effects. The thing that I think is more important is that

there are movies where that describes the whole job and I do think that the credit is appropriate there and I think that there's a certain way that you don't want to diminish that overall concept by throwing that title around on every other movie. I don't mind how you refer to it. I think it was suggested to Randy Thom that he adopt the title *sound director*, and Randy said that he thought *sound warden* is more appropriate.

BARNES: *At the School of Sound you also mentioned that the Coen brothers had fight to get you on their top credits list and that thing about the Director's Guild. For me that showed that sound is quite important to them and that you were an important part of their team to be put at the top.*

LIEVSAY: That's kind of a contentious area because the guild is still smarting from that. I know that Randy Thom tried to get a head credit on a movie and they responded officially that head credits are reserved for creative contribution and because sound is considered a craft and not a creative contribution then it has to be at the back of the movie. Of course, that's the guild's position.

BARNES: *Isn't picture editing just as much a craft as sound editing?*

LIEVSAY: Well, one would hope that it would be looked at that way. But the picture editor has been around since day one and the sound editor has only evolved in the last twenty, thirty years. Like a lot of things when it comes to credits and awards it's all about precedent and what is historical correct - to this day there are big battles in the Academy over sound awards of who gets what and what it should be called. By the way, a majority of Academy members are actors...My understanding is this - in terms of what's considered a main title - this is where you have the writer, the director, the film editor, the producer, the [cinematographer] and some other department heads - production designer, things like that - and that's the place where you cannot have an editor credit, other than the main film editor without also giving other people credit like [Assistant Director] and production managers and people like that. That's the part, which the Coens won't abide by.

BARNES: *I notice that they don't even put their own names on their films until the end and that's kind of unique.*

LIEVSAY: That's the way it used to be - you used to have the main titles then the actors - not on all films but on most films - and at the end the actual head credits would be the first thing in the crawl. That's how their credit scheme evolved.

BARNES: I've also noticed that *most of the Coen brothers' films begin with sound rather than music.*

LIEVSAY: There's a funny reason for that, but I won't tell you what it is. I could tell you then I'd have to kill you...Why don't we save that for another session?

Transcription of the Second Interview with Skip Lievsay (5 January 2004)

Randall: *What would you say then dictates whether you're going to have a collaborative work ethic on the film. Would it be the Director? Would it be the corporate wrangling? Would it be the individual craftspeople? Or is it a combination of those things? Or is there an overriding thing?*

Skip: I think the collaborative spirit is a function most importantly of the filmmakers and their understanding of the material. Once the film has been shot it usually becomes the Director's medium and as far as sound goes it almost always comes from the top. If the director has an understanding or an appreciation of the way sound can change the way people look at the movie, then it usually it becomes a collaboration. And then everything else that happens that will either perpetuate or undo that collaboration. It seems to be a function of how well the filmmaker understands the material. Writer/Directors like the Coens sort of de facto understand the material in a much more profound way. And I think the reason why they are so good at their collaboration is because of their understanding of the material.

Some directors only know what they don't want. They don't know what they do want when it comes to sound. This is because these directors don't have a profound understanding of sound and how it contributes. So with these directors the collaboration is much more elemental. We review a scene and discuss what the basic components should be. Then the filmmaker will either simply encourage or discourage more elaborate sounds and sometimes that can be pretty much the limit of the collaboration.

Unfortunately, there are all the other myriad forces which can also have an impact on the collaboration. Producers, writers, the Studio, the budget, timing and weird things like somebody gets sick or something happens, a reel of film is lost or God knows what. All those other bad forces have a way of impacting collaboration. Yeah I think that it's all about how well the filmmakers understand the material.

Randall: *And when does the composer come in when you've been working?*

Skip: Well its rare. Basically only with the Coens do I have a spotting session with the composer. We do have joint spotting sessions.

Randall: *You and Carter do that?*

Skip: We all get together to spot. The music editor comes and writes distracting detailed notes and the ADR editors are there and they make really

distracting notes. And Carter and I just try to keep our wits about us and be entertaining. Joel and Ethan are very good, very specific. They'll say, "Well you have this and we want to have this. Obviously we need to have your musicians do something here." Sadly, this kind of collaboration just simply doesn't happen very often. This is because the evolution of the modern soundtrack has created an undeclared war between the music and the sound effects forces.

Randall: *OK. So apart from THE BIG LEBOWSKI and OH BROTHER, two very music-oriented films, by that I mean they were more music dominated, the Coen brothers always begin their movies with sound effect. Is there a reason for this?*

Skip: It's not a very poetic one.

Randall: *Well the other reason I'm asking you this is because at the end of the last interview I'd asked well why is that and you said I could tell you but I'd have to kill you first. So I thought I might as well ask. Is there any reason for it?*

Skip: It's a sad and not a poetic reason. Most movies that get made nowadays have a lot of head credits. During post-production, mysterious people that come out of the woodwork, all of a sudden have a head credit. When the filmmakers are editing the movie together, they don't have a clear idea what those head credits are going to be. They may have a specific idea about what the first image of the movie's going to be...like the one we're working on now. It starts off with a shot of gargoyles on a bridge. There's gospel music playing over this shot. At a certain point the camera pans away from the gargoyles and the head credit montage plays out. It's similar to THE MAN WHO WASN'T THERE which starts with the barber pole and then it pans off. The whole sequence is timed out in a certain way, and the queue and everything else is paced to resolve at a certain point.

Starting with the academy leader, then the first frame of action when you go from black and fade in the gargoyle. At some point during the fade the music queue begins. That's the way the movie would begin. Now add the sound effects coming in under the music queue. We'll gradually fade in the ambiance, as the music queue builds. Other things develop and sound effects will have their own natural position and balance within the mix.

OK, we're all excited, ready to final. We've already made our reference tapes, we've done our previews, we're going to start dubbing the movie. Now we find out that there are eight head credits. A 'So and So Production' of a 'You Name It Film'. Added to 'A film by the Coen Brothers'. Not to mention the

Universal or Disney logos, or whatever. Each of these head credits is like 15 seconds let's say. Next thing you know, we have a minute of film without sound that we have to do something with. Ethan will say "Let's put some wind in there. Have you got any wind?" It's sad but true.

Randall: *Well it's effective and it doesn't seem like a throwaway.*

Skip: Well we always try to extract it from the coming events. Usually it is a function of what's coming next or something prevalent in the film.

Randall: *OK, but what I've said, in another paper, as the reason why THE BIG LEBOWSKI and OH BROTHER begin with music is because they are very music-orientated. They're dominated by source music and music is a big, big part of those two films. That's my argument for why they start with that as opposed to a sound effect.*

Skip: Well I think OH BROTHER, if I can recall correctly, starts off with cricket sounds, like a cricket atmosphere, and then you hear a chain gang, then you hear the singing of the chain gang. This is a recording of a real chain gang and the singing and hammering were recorded - documented - together as they happened. We made hammering to match the sounds in the music cue and used these FX over the credits to lead into the song.

Randall: *Yeah, but when you listen to the soundtrack CD it includes the hammering of the rocks. In fact, it begins with that and, for me, that made it very musical, even though it's using source objects.*

Skip: It's still a rhythm. It's copyrightable. According to the US government, that makes it a music composition.

Randall: *I've noticed there's greater perspective changes in the mixes of O BROTHER and THE MAN WHO WASN'T THERE. Was that your approach to them?*

Skip: Well that's something that we've all been experimenting with. This is something that I would happily attribute to learning about movies from the process of making them. The principles of the soundstage have evolved to embrace a wider more realistic frame. Many mixers have preferred a steady soundstage without perspective changes. The idea was to set up a non-moving environment, and everything takes place within that. Without regard to a point of view, everything stays locked down. The soundstage is anchored in the audience's perspective. This is the way that Lee and Tommy liked to work. You set up a stereo atmosphere of some kind and everything happens in that without that change.

I prefer to have stuff shift when the perspective and the point of view changes, even to the point where some people think it's distracting. I really go through it and make it distracting and then say "Well let's pull that back a little bit" or "Let's make that a little more centred with those few shots." And then where we can, when it's not distracting, we'll make it wide again so that the perspective changes are dramatic without being distracting. I think you can see this in the movies that Michael Barry and I did together, like HUDSUCKER and any of the movies that I did myself, I think you'll see that they have more active perspective changes than others. And I think you'll also see that stuff is generally a little more stereophonic. Like RAISING ARIZONA is almost a mono really. It's so there. It's just like a flat tableau. We were learning to use the tools then.

Randall: *The next four questions are also about RAISING ARIZONA. The sounds are overtly cartoonish and they draw attention to themselves. Do you prefer film work to be obvious?*

Skip: Well I think it's kind of a time and a place type of idea, not required of all the scenarios. But I do think there are certain times when you want to reinforce ideas. Or, in particular, you want to guide the audience to understand the material better. There are times in most films where you can help the audience to understand the filmmaker's intentions better if you point with sound and help them to see a certain thing.

There are also some very powerful psychological aspects to loud and quiet and big and small. I don't understand the underlying science, but I do think there are certain conventions that have worked for us over the years. Like the chest thing- as a child we learned that if you put your head on your mom's chest, you'll hear bass sounds in her voice even though she doesn't have a bassy voice. People understand this at an almost instinctual level. In some circumstances, if you make the dialogue bassy, it seems more intimate. This I would describe as a gimmick basically. There are other ideas and gimmicks that utilize psychological effects of sound. Most are about getting the audience's attention and helping them pay attention to certain details.

And there are also jokes. I mean *RAISING ARIZONA* is a comedy and we are trying to make jokes, we are trying to make things funny. I'm guessing one of the things that you're referring to is the biker...One of the sound editors spent a lot of time making motorcycle sounds for this sequence. Then we had some big whooshy sounds, big dramatic sounds, not little sounds. We also had a big music queue. On top of these, we had a very intimate voice-over, a storyteller type voice-over, and it was real easy to see we were on a collision course with all these sounds. And so instead we focused on the voice-over

and we only used sound effects to drive home a point. You'd hear, "and he was horrible", and there would be an image of him, and we'd try to find some kind of creaking leather and chain sound and then we'd just reinforce his being a gnarly sort of motorcycle thug.

Randall: *Did you go for cartoon type sounds?*

Skip: Well yes, we did go cartoon. Usually, it more of a see and hear type of thing, where you see the chain, the next thing you know is someone's done a sound effect for a chain sound. When all of the literal sounds are put together they are meant to create a kind of reality. But when there isn't room on the track for the motorcycle sound and you take away the sound of a motorcycle. Now if you hear the chain it makes it totally different, makes it become something really not literal and not realistic. Like the sound of the little booties you hear, it's the most abstract sound you can imagine, given the image. And yet that helps focus the viewer and makes you realise that there's a certain humanity to the man. Even though he's like a totally weird biker- who knows what his inclinations are. He's got booties hanging on his leather jacket that have a little bell to them. Because we can hear them this makes you think that he hears them too. Those are pretty abstract ideas but we experimented with them and I think they worked for us at that time. I wouldn't know what Joe and Ethan had in mind. I don't know what we had in mind either. We never compared notes.

Randall: *Well obviously they were happy with it or at least they accepted it...I reckon that all the sound conventions, for the entire film, are established in the opening prologue...I'm not saying every sound per se, but the rest of the conventions that follow are all in there. Would you agree with that?*

Skip: We stacked up a pile of sounds, cut a soundtrack and we did it in a very sort of mechanical way. It was a war of attrition basically. Only the things that could stand and support were left in. Everything else was taken out. And that's actually a style which I didn't really understand until much later. The person that I learned this technique from is Gary Rydstrom and his track for TERMINATOR 2. It's a completely amazing track- it's so lean. There are so many chase scenes, with so many different types of vehicles in that movie that it could be an ear-splitting, numbing, really irritating track, if you just realistically reproduced all the sounds that would go with the images. But what they did, in the same way we did with the biker scene, was to reduce the track to only the sounds that mattered and they let everything else go away. The track is actually almost spartan compared to what you're seeing on screen. And the beauty of that was that the viewer had so much in reserve. In these sequences a lot of dramatic stuff was happening yet the sound was carefully presented providing the only most important information.

Then, when you really needed to play something for effect, a big in your face type sound, they could really push you back into your seat. I thought that was really a major achievement. I've told him that many times.

Randall: *For me it's another one of those landmark soundtracks. How did you then construct that chase scene, with the dogs, the cars, the whole Huggies sequence? Was it possible to use location sound in any of that?*

Skip: We used very little location sound actually. RAISING ARIZONA has amazingly little real production sound, only really the dialogue.

Randall: *There wasn't any wild track?*

Skip: There was a little bit but the majority of that movie was made with sound effects. We recorded sound, we recorded cars, we recorded atmospheres. There were some dogs, as I remember. For the babies...there was one piece of wild track which was about three minutes long. There were several babies on that wild track. My dialogue editor, Phil Stockton, managed to cut that whole sequence from this one track. Babies playing and cruising around, H.I. trying to kidnap them and then them all getting away, the whole scene. I don't think we used any other baby sound effects for that whole sequence. It was quite an achievement on Phil's part.

Randall: *Some critics reckon the whole film is a dream in H.I.'s head concocted by his wishful thinking. They quote, at the very end, when he says "Maybe I'm just wishful thinking" to mean that the whole thing is a dream because it's kind of a wish fulfilment thing. But I argue that the fact that when he says "that night I had a dream", the quality of the sound changes, to some extent, the tone of those sequences. To me it's a distinct change to show you that this is not reality, this is a dream type sound. Everything sounds very far away...we can tell by the sound change at the end that it's clearly a dream and that it is only these parts that are dreams not the whole film is a dream.*

Skip: I think you're correct. I wouldn't accuse the Coens of anything quite as abstract as trying to make the whole film in an altered reality.

Randall: *Well I suppose I should say that part of the reason why they say this is because you have the voice-over through the whole film. He's telling you the story. So they're saying maybe because he's telling you the story and then, at the end, he says 'its wishful thinking' that maybe the voice over encapsulates the whole thing as a dream.*

Skip: Yeah, that would be one person's interpretation. I don't believe they were anywhere near that kind of material. I do think that there was an understood license taken with the dream sequences. There was a very conscious effort to make those into sort of dreamy, ethereal-type sound-wise.

Randall: *That's what I think and I would one hundred percent argue that, especially the end, because you have the voices of the family when they come in to greet them they are unnaturally low in the background. All the sounds are completely ethereal as you said.*

Skip: Well, you're not off base. The motives may not be clear but I do think the sentiments are correct. With this and many other films - there is no there. It's only what's happening in front of you. I believe that the Coens understand the idea of cinema pretty well and that they understand how to make things cinematic and how to use the cinematic process to help them tell their stories and make their stories more entertaining.

I would guess that they look at RAISING ARIZONA as kind of two-part deal. One part is the story-telling, which is much more traditional, which has the illustration and the discussion. So there's the image and there's the voice-over discussing the image. And then there's another type of story-telling in RAISING ARIZONA, which is the abstract dream idea where the voice-over doesn't necessarily describe what you're seeing. It gives you information but it doesn't cover all of it. I think they like the idea because it allows them to do abstract and not literal material. But it also allows them to explore interesting cinematic ideas and other structures.

This is hard to do in reality, even if you just stick with dialogue. On the other hand, if you have let's say *Waiting for Godot*, you know it's largely dialogue, but you can pitch that in a pretty dramatic and abstract way because it has big enough concepts that you can create pretty elaborate scenarios. I think that that the dream concept allows a lot more latitude and flexibility and allows you to explore cinematically the abstract areas in the same way.

Randall: *But did you use distinct sonic qualities that were different than the reality?*

Skip: Well it's like what we were talking about before. When you make those cartoon sounds, you get down to a kind of elemental level. It doesn't rely on the realities like atmospheres and falling sound effects and so forth to sell a reality. In fact, it's almost like the opposite. You get to create weird sort of abstract ideas where you can end up with these kinds of cartoony sounds. Maybe that's how we define that. Because when you remove foley and

abstract atmospheres and things like that, maybe it becomes more cartoony sounding because it doesn't have the whole context. I don't know.

Randall: *And that's what we reckon sound does for the film. It heightens the reality. So it gives a hyperreal feel. And when I watch Coen Brothers' films that's what I hear. The majority of the films are more real and the sound is probably, well not the biggest part, but one of the biggest parts in creating that hyperreal sensation.*

Skip: Well it's certainly true of BARTON FINK. That was the whole purpose of the soundtrack, it was an exercise practically. But that's the way they work and the fact is if you look at their scripts, a lot of the material is represented in the script level. It's not just stuff that we glue on later. It's really stuff that they have thought through and created. They definitely entertain the notions and then figure out how to do it and write it down. Unlike the Coens, most filmmakers don't really work with sound it this way. They kind of dabble in it at the end of the process...I think the Coens really do understand and work with sound and most other directors play with sound. They sort of fool around with it a little bit during the final mix.

Randall: *And that's part of the reason why I've chosen them and you as the template which I'm hoping to put forward as something that people can emulate - the working environment and the end product. Ultimately, I should say the whole reason I'm doing all of this is to promote sound and to promote its place in film because it's still the poor cousin. You would know more than me, but obviously some directors value it more than others. Just to give it that place it rightly deserves as at least 50% of the film. It might be changing. Maybe technology is lending itself to people being more conscious of sound and maybe these big films are making people more conscious of sounds. But it does seem like they're just making them louder. I guess you could say that's a very small step, but at least they're aware.*

Skip: Well I hope you're right. If so, as the industry embraces it, it will become more of a meaningful partner. Maybe then people will start to understand it's value, it's merit and that sound is not just as a gimmick. All the loud stuff is really just a kind of a gimmick.

Randall: *Looking at hyperreality again, all the sounds seem to amplify reality in MILLER'S CROSSING. Would you agree with that?*

Skip: I would and I think it is a good example of where Carter and I worked it out pretty well how to let music and sound work together...it was sort of about dynamic range I think. How we were able to pull music back so that

certain sounds could come through, like say a streetcar or a thunder peel. Or letting the sounds recede and letting the music play full up.

Randall: *Did you exaggerate things deliberately?*

Skip: Yeah we did. Like in the forest scene where he takes him out and shoots him but then he doesn't shoot him. We had the creaking tree sound which was a big part of that. And the wind and trees were elaborate constructions. And the gunshot thunder sound was a very elaborate item. It is quite a realistic sound job though. Even the stuff where we went full on like the Danny Boy sequence. Those are mostly very realistic representations of the events that are being shown. Loud maybe, unnaturally loud maybe.

Randall: *You're saying realistic as opposed to exaggerated? What do you mean?*

Skip: I'm agreeing with you in one sense. I'm saying that unlike say BARTON FINK where you have a lot of made up sounds, the track for MILLER'S CROSSING is comprised of mostly real sounds, played at an exaggerated level. But they're mostly real sounds. Like the Danny Boy machine gun - machine gun sounds, impacts. Real sounds like what would it sound like to have a bullet hit your head or your foot.

Randall: *OK. You mean actual representations as opposed to figurative representations. You might have mentioned this but during Bernie's potential execution where Tom reveals his heart. You said that there was thunder...I'm saying that thunder provides an ominous sign. This was not the best time to reveal his heart. Is that the idea?*

Skip: Yeah, we put the thunderclap there to help extend the gunshot release. I don't believe they intended the gunshot and the thunderclap be quite so married together. They asked that the sound of the gunshot reverberate in the woods and we used the thunder as a way to make that reverberation. We could have taken reverb and made the gunshot echo, but instead we used something which is a well known long sound. I think people can identify with that kind of echoey lingering thought. As I recall, we put in the precursor thunder ourselves. It wasn't in the script. We just did that ourselves and they liked it.

Randall: *Now BARTON FINK's going to be the centrepiece of my paper. I'll talk about a lot of the other films, but because you did the closest collaboration with Carter on that, I've chosen that as the main focus. BARTON FINK begins with the inner workings of the backstage. The script I have begins with it actually on him, full on John Turturro's face, and it pulls back.*

Then you hear the people on stage. Where in the final product it actually starts with the inner workings of the backstage and things falling down and then you hear this voice. And then finally, he appears.

Skip: That was done by the title people. That was added.

Randall: *Either way I think it works from my analysis. Because what I've discovered and you can tell me if it's true or not, is the voice speaking is actually John Turturro's voice. So it's his own play and he's actually playing the character. I read this use of sound as a way of communicating Barton Fink's identity. The inner workings draw attention to the mental process and the disembodied voice shows the disconnection. I look at him as a complete idealist, lost to himself. A lot of stuff I read about his character says that he's arrogant. I don't find him arrogant at all. My take on Barton is that he's an idealist who is out of touch with reality. I think idealism to an extreme puts you out of reality. So much so that he's not even in touch with himself.*

Skip: Like when he goes from the play to the dinner with the reviewer and then he goes to the bar with his agent.

Randall: *Where he makes the joke?*

Skip: Yes. The agent says 'Have you seen what they've said?' And he says something like, 'Don't empower those assholes.' And then he says, 'What did they say?' Like he's happy to spout the politic, but he is actually interested in his own career. He does want to know what they think.

Randall: *I don't see arrogance there. Just because a person is opinionated and idealistic, doesn't necessarily make them arrogant. They can be self-obsessed. Because when you're idealistic, you do spout off a lot of strange ideas.*

Skip: No I agree with you but if you look at the scenes with Goodman, there's a lot of material in there where he's spouting. He even says 'I'm just spouting'. Yet there are sections where he's talking about ideas that he's thoroughly comfortable with himself but, in fact, he's being rude or at least inconsiderate to Goodman. You could say that that's arrogance.

Randall: *There is a degree of it.*

Skip: Or he's lost. You're starting to think.

Randall: *Yeah, I think he's lost. He's totally lost and disconnected and he thinks he isn't, but he is and that's why I say all this stuff in the beginning*

with the inner workings and the disembodied voice. It shows me that separation between him and his work. That's his work out there on the stage, when he's speaking, and his idealism and his beliefs are all in his work. But he, himself, is not connected to it. He's over there. His real self is disconnected from it. That's how I see it. So for me it sets up the film. So at the end, when he's got the box and she asks him "What's in the box?" or 'Is it your box?', and he's says 'Yes it's my box'. And she says 'What's in it?' and he says 'I don't know.' For me he had all these ideas. He thought he knew what he believed in. He thought he knew who he was. And at the end he doesn't have a clue. To me, that's what the end means. He just doesn't know. All his ideals have crashed. Everything that he believed in has gone. And now everything that he used to hold on to isn't there any more so he doesn't know anything. He can't put a hook on that because it's not there any more. So that's my take on the film.

Skip: That's a good one.

Randall: *Staying with BARTON FINK, you've got the wave, right after that, crashing. Because you never actually hear him agree to go to LA, it seems like that's him being compelled.*

Skip: Slapped in the face, geographically.

Randall: *Is it slapped? Or is he being forced? Or something like a kind of a fate or destiny pulling him, pushing him.*

Skip: I always read it like in movies when someone punches you and knocks you out, it doesn't really happen in life. It happens in the movies all the time, one punch and you're knocked out. And then eventually someone comes and throws a glass of cold water on you that brings you back. That to me is what that splash is. It's the wake up and smell the coffee.

Randall: *OK. So when you repeat it again, at the end, what does it mean?*

Skip: It's the same thing. Change of like venue basically. You've been going along and now we're going to go somewhere else. It's like a kick in the butt basically.

Randall: *Alright. Going with my idea of the intellectual journey, would I be right in saying it was more figurative as opposed to literal? I'm saying mentally he's being taken somewhere else.*

Skip: Well yeah, to me the reason why it's a slap is because he's giving in to outside forces. He's got his little thing going in New York, his little career -

he's a theatre writer. And then he has made the fatal mistake of reading his own press, or allowing it to be read to him. And for his sin of perverting his work, by allowing it to be influenced by the audience and the reviewers, he gets a slap in the face. Reality kicks in.

Randall: *So what is it when it comes back near the end?*

Skip: It's sort of like OK now it's over. It's like the bookend at the other end. One begins it and one ends it basically.

Randall: *The mosquito buzzes and the wallpaper squelches distract Barton from his purpose of writing this wrestling picture. Would you agree that these sound effects are more than annoyances? That they function like ill omens, portents of things to come.*

Skip: Oh yeah. These essentially act as the alliteration of the idea that when you're trying to do something everything becomes a distraction and everything has the same importance as a train wreck. So a murder, sagging wallpaper, a gunshot or a fly-by - they're all equally distracting.

Randall: *So are they foreshadowing anything? Because what I suggest in my paper about BARTON FINK is that they denote some sort of impending doom because of the decay and the annoyances - they're all little things distracting him from his very narrow purpose and he can never get to it.*

Skip: I understand it in this way. When I'm working I can juggle a certain pile of stuff that all has to be done at the same time. I'm happily making notes and calling in and multi-tasking and doing all sorts of things. But there is a threshold where it starts to break down bit by bit and I get a little bit overwhelmed. The mosquito and the wallpaper illustrate that concept. They start off just being distractions and then they end up essentially becoming the thing that pushes him over the edge. The mosquito starts off being a distraction that keeps him from writing. Then it becomes almost like a taunting reminder that he can't do his writing. And then it becomes the ultimate exclamation mark that he's involved in this murder. It's the same thing with the wallpaper. At first it's up just saying, 'Look how shitty my life is. It's come to this.' Then it becomes an annoyance and then it becomes a function of Barton's downfall.

Randall: *A book on the Coen brothers says that the sound during the sex scene in BARTON FINK is "a demonic cacophony of voices blended with the sound of running water". Would you agree that?*

Skip: Yes I would agree. We had that irretrievable association with the dream and the idea of the camera going into the tunnel. It's so obvious, there's no need to comment on that. But then, we also had the beauty of the sound of the neighbours, which is done a couple of times in the movie. So we had those two realities to work with.

Randall: *What exactly is in that mix there?*

Skip: There are those voices and we did have some sort of draining sounds. We had Carter's music to work with and we didn't really want to get in his way too much. We were definitely following specifically David Lynch and Alan Splet when they track into the ear in BLUE VELVET. All that stuff was meant to be a homage to that. There was also a very specific bit of business when we had to increase the amplitude of these sounds until he opened his eyes and then snap off.

Randall: *Do you actually hear the voices of John Turturro and Judy Davis?*

Skip: No, it was the sounds that we had for the neighbours that I manipulated, as I remember. Those were two actors we had.

Randall: *So did they have sex?*

Skip: What's in the box?

Randall: Can you give me like a specific example of how you collaborated with Carter during BARTON FINK? You've probably told me before but could you tell me something very specific.

Skip: Well that scene down into the drain was definitely detailed. I sent him samples of what we were going to put into this scene and he said, "Why don't you knock out these sounds and I'll put violins in there. And why don't you amplify these other frequencies and I won't use double bass for whatever it is." This was done with most of the cues in the movie. Carter would ask to hear the kind of sounds we are you going to have and I would make him sequences and samples of these sounds. Carter analysed what frequencies were open and how different instruments would play with these sound effects. We had a spirited and thorough co-invention of this track.

Randall: *Is this throughout the whole production, including pre-production?*

Skip: Well no, it was just through the post. Every now and then there's are pre-recorded songs or something like that before that. But they don't really work with sound or music until we get it to post.

Randall: *I mean just talking about stuff.*

Skip: No. Same thing. We really just get together at the end. We have a period of around, let's say, three or four months when all the business is done. I can't recall ever having a longer collaboration than that. Carter has had longer associations with them on like a movie that didn't get made. Carter was working on that movie for what would have been probably a year. That's not a good example. That doesn't happen very often.

Randall: *I've argued that THE HUDSUCKER PROXY and FARGO show two, nearly complete extremes of sound construction. HUDSUCKER, is utterly fantastic and the other one is utterly realistic. From the onset of both of these films, they're both consistent throughout. Things in HUDSUCKER are all fantastic, where things in FARGO are all literal. And they both support the worlds created within them. Was that how you approached these films?*

Skip: Well HUDSUCKER PROXY definitely is a sort of a high impact type of a sound job where there's lots of little sequences and we're trying to create sounds that can help drive the film. That provided like a momentum. And it does tend to be literally like impact type sound effects, big splashes of sound. We knew that there would be a lot of music in the movie, and that it would be big and bombastic. That was the idea. So that doesn't leave much room for any kind of subtleties. So we pared away. And when you start paring away the subtleties you end up having a kind of sterile environment sound-wise, and that is not very realistic and doesn't leave a lot of room for realism. That leads you naturally to having these kind of bombastic sound effects, the same way the music is. Once you've set up that mood it's easy to go with. That's the way the film was shot also. I mean it was shot with that in mind. There are big images that blast on and there are these, sort of rounds and dialogue sparring and then it's a big splash of something happening.

Randall: *And is it the same for FARGO then? Were you trying to be as consistent with a narrative which is supposed to be a true crime story?*

Skip: Correct. The idea was that it was literally the cold harsh light of reality. And the whole point really of the exercise was the more realistic we could make it, the more brutal the shooting of the cop and the other shooting and then eventually the wood chipper, the more brutal that stuff would seem. We didn't really talk about it in that sense but we did all understand that the more realistic it was, the more brutal and heinous it would seem - like the car chase scene which is weird and kind of surrealistic. At the end, the car's flipped over and Peter Stormare walks over and shoots the girl. Well, the idea was that that you would hear the crunching footsteps and you would hear the

tyres spinning and the door bong, bong, bong, which would make that all utterly and hopelessly realistic and then he shoots her. I mean as much as the audience got that. There was no release in that, no soft landing the way there was in MILLER'S CROSSING.

Randall: *I would argue that that's because MILLER'S CROSSING was more hyperreal. You had more of the surreal or things that were larger than life. But this was stripped down to what you would expect to hear. How much influence do you have over the dialogue in the Coen Brothers' films? I mean not actual writing dialogue but over cutting it and editing it.*

Skip: We have pretty free reign to try any out-takes that might help. We always show them their version and our version and let them choose. We never disguise it or anything or try to pull one over on them. This is done in order to avoid ADR-looping.

Randall: *Are you personally involved in dialogue editing?*

Skip: I screen problem scenes with the dialogue editors. It goes like this, "This section here really doesn't sound good. Let's use alternates from this section and make it sound like it's all happening in the same day." Or I'd say, "In this scene here there's 40 lines and that line right there is really noisy. Give me an alternate to that." Then we go to the dialogue pre-dub and the editor sits next to me at his Pro-tools session. As I'm going through and mixing, I will ask him, "Can you find me some fill?" or "Can you get rid of that line?" or "Let's find an alternate." And we do it together. When the predub is complete, we play it back for Joel and Ethan. We go over all the things that we've done, to which they will say "Good", "Put it back" or "I prefer the other one." In this way we all constructively try to find the best sounding track. It's a very positive, happy event. Some people I know would be furious if we tried to put in alternate takes. And a lot of times they just don't want to invest the energy. Most of the directors we work with are happy when we don't have to loop. Anything we can do that can save the production and not loop, they say "You go man - you do that - as much as you can."

Randall: *Occasionally there are unscripted effects on voices. How are these effects decided? Do you decide them? Like while Barton's typing, when he's doing his masterpiece at the end and the camera literally goes out of the room and pans into the corridor and comes around. That's not in the script. It doesn't say it does that. So there's that kind of stuff as well.*

Skip: Yeah those are the sort of things that we experiment with, and there's a certain kind of sound that I find to be pleasing and rewarding. It's that idea of sound having a personality, one's personality becoming intertwined with

the sound that you come up with. And there are certain sounds like that, that I like to use and I hear them and I add them and I start working on a section and I think, let's try it with a certain reverb or sound effect added to it. The Coens are actually very generous when it comes to things like this. Usually they encourage this kind of experimentation and are happy to have it.

Randall: *And are you involved in any way in deciding the variety of voices? Like in THE BIG LEBOWSKI, everyone has a distinct voice. In fact, almost all the main characters have their own theme tune. But they all have a very unique way of talking. I know they tend to do that. But I think everyone has their own way of talking in THE BIG LEBOWSKI more than any of their other films.*

Skip: No I think that's the way Joel and Ethan hear stuff and the way they write it. In that case it's also completely aided and abetted by the actors understanding the material and jointly creating this. It's between them and their actors. I won't claim authorship of that.

Randall: *With INTOLERABLE CRUELTY was there a different dynamic on that film than other previous Coen Brothers' films?*

Skip: Yes. That had a lot of strange angles. First off, it was the first film that they had ever done that they didn't write. It was written by a guy named John Romano. And it is true that they did a version of it a long time ago. They wrote a draft that was probably around let's say the third significant draft and that was after RAISING ARIZONA. They were hired by one of the producers of RAISING ARIZONA to do a draft of that movie. And I don't think they were ever considered to direct the film at that time. I think they were just hired to do a draft. They've done several of those over the years. Jonathan Demme was working on a project that didn't go, so he was asked to do INTOLERABLE CRUELTY by, I believe, Universal. It might have been Brian Grazer who was the literal producer of the movie. And I think Jonathan, who knows the Coens very well, phoned up and said, "This is happening. Are you going to do the movie? I wouldn't want to get in the way of anything you had in mind." And they said, "No, fine." So Jonathan became the film maker for a while and the Coens began work on TO THE WHITE SEA. When TO THE WHITE SEA came apart, they became interested in it again. In the meantime Jonathan had another project that that got going, so he became uninterested in INTOLERABLE CRUELTY. So George Clooney, and I believe Brian Grazer, put all those people together and the Coens phoned Jonathan and said, "Now they want us to do it. Is that OK with you?" And that seemed to be it. I think that's how it all happened. But none of that really matters. The point is that it's not in their experience to make movies in that way and it was a big change of approach. It was essentially a George Clooney movie. It's a

Hollywood Star type movie, which they had never done before. So everything about the movie was kind of tainted, touched by this idea that it was like a commercial movie star type of vehicle, very much like a Clark Gable or Cary Grant type movie. And in a way I think the Coens were a little bit dabbling in that type of filmmaking.

Randall: *They just wanted to try it out because they hadn't done it before.*

Skip: They loved working with George Clooney. They certainly knew the material because they'd done the drafts and I think they all said "Let's, give it a shot." So the whole movie had that kind of aspect to it where it was a little bit of an experiment. In a weird way you'd think of experimental movies as being avant-garde, but this was a kind of an experimental film for them.

Randall: *And did that whole thing affect the way they worked with you or with Carter?*

Skip: Yeah, it did. I think it's fair to say that they approached it as an experiment. And what they were experimenting in was the idea of making a Studio movie - a commercial, movie star type movie. So they experimented in every way. They experimented with the process, they experimented with the lighting and the photography. It was written like a fifties movie. And maybe even like a Capra type of project, or Preston Sturges.

Randall: *Did that mean they gave you a freer range to do things?*

Skip: Not really. We looked at it purely as almost like a genre movie. And we approached the sound within that sort of framework. Knowing them as we do we knew there was certain things we knew they would want us to work on. But generally we tried to really just keep a low profile. If you watch the movie, the construction of the movie is quite structured. I mean it's episodic and there's a lot of dialogue. There are certain sound effects that pay off, like gun shots and door slams, but it's not an atmospheric movie at all. There's hardly any backgrounds in the movie. The only backgrounds that we put in were put in to support the dialogue production track.

Randall: *I suppose the only place you might have done something imaginative is in Herb's office.*

Skip: Well we all thought that that would work as a sound thing. But in fact Herb himself talks non-stop through all those sections. And he's got a touch accent. And he's busy. He's wheezing, he's got all kinds of stuff going on. And then we added music to all those scenes as well. So eventually as I was mixing those scenes, I pulled more and more stuff out. And Joel was actually

very specific about what he wanted to have there. And even though we did create a little bit of a scenario there, you would hear that there is essentially an iron lung - a kind of a respirator type sound. And then we used a sound effect which I particularly liked in 2001[: A SPACE ODYSSEY]. It's the docking sound - a kind of beep. I had always liked that sound and I called the sound editor to put it in there. He was very angry with me because he didn't like the idea, but Joel loved it, thought it was hilarious and recognised it immediately. I think that's a very good example in sound how it's so much easier to sell one clear idea than it is to try to create a whole battleship.

Anyway, it was very straightforward film. And I spent more time on the dialogue and making the dialogue sound in a certain way than any other aspect. What I did is I made George Clooney's voice very bassy. The effect of that is you almost feel like your hand is on his chest. So it feels very intimate. And then I just tried to make everyone else clear and crisp. But it took a lot of effort because it was often recorded in synch time and sorting it out was a little difficult.

Transcription of the Interview with Carter Burwell (13 April 04)

Barnes: *Did you meet the Coen's through a friend, or did you meet them through Skip?*

Burwell: It was really through Skip. I knew Skip from the music scene in New York, I guess you'd say, and he was working on BLOOD SIMPLE. He thought I ought to take a look and express an interest.

Barnes: *And what particularly attracted you to it?*

Burwell: Just the fact that I had never done this before. As simple as that really.

Barnes: *And how did you approach it, in a general sense?*

Burwell: I went over to their cutting room and they were talking to a lot of composers. I had never done it before so I had nothing to show them as a demonstration of my work. I went to the cutting room and watched, I think, one reel of the film, just to get a sense of the locale, the Texas locale, and a little sense of the film ambiance. And I don't remember really conversing a whole lot. And then I went home and did some sketches, sort of mostly electronic, but some were piano. Probably about a half a dozen things. Some of them would be more traditional thriller sort of material and then others were less traditional. And I brought those back to play for Joel and Ethan a couple of days later.

Barnes: *Did they ask you to do that? Or did you just look at the film and say, "This is what it's all about, so that's why I'm doing it"?*

Burwell: Well I don't recall whether they asked me to do it. I think that they wanted to hear something that I'd done and since nothing I'd been doing until then was really applicable to the film. I guess I volunteered to go home and try some things that were more cinematic and bring them by. I ended up basically writing a few things in a day or so and bringing them back to the cutting room. We played them and talked about them. The ones they were definitely more interested in were the ones that were less traditional thriller music. And basically they left it as, don't call us - we'll call you. And I went off and did other things for a little while. In between I went to Manchester and worked on an album with a friend there for a month, for Factory Records. While I was in Manchester I got in touch with Joel and Ethan and they said they had decided they wanted me to do the film score. So once we'd finished the album, I happily came back and at that point there was only about three

weeks left in their schedule. So we used the themes that I had already written in the first day and that became the score to the movie. And I will say that there was an important lesson in learning how to trust one's instincts – one's first impressions. Because indeed I think that those themes worked pretty well in the film and there was no reworking and rethinking. It was really just the first thing that came to my mind. That's usually the best solution, if you can come up with anything. I do find that first impressions are usually the best.

Barnes: *Do you happen to remember which scenes those were?*

Burwell: I didn't write to scenes in particular. I don't remember which reel they showed me, but it was really more like moods than scenes. Indeed, in the end, when we finally got to writing and recording the music for real, neither of us knew, technologically, how to synchronize the sound of the picture anyway. So the way it was done was that we went into the recording studio and we would just say, "Alright, this scene requires a minute and thirty four seconds and maybe there's a little bit of a high point when you're fifty five seconds in." I would just put a watch on the piano and play and we would try to make it work. I actually have a fond recollection of all of our naiveté and lack of experience. It made it special in a certain way, when you don't really know what you're doing.

Barnes: *I assume that it also produced more unconventional and more interesting music.*

Burwell: I think that that's true. Also because it was not scored so tightly to the picture as most film scores that I work on, it meant that Joel and Ethan were able to take the music and to play around with it a lot more. As it so happens, they completed the post-production, screened the movie for people, and decided that it needed a lot more work in post-editing and what-have-you. They ended up doing more work on it for almost a year. During that time, pieces that I had intended for one scene ended up in another scene and Skip also did some processing on some of the things I'd done, putting them through a flanger or what-have-you, and the music was treated more like any other sound element, where Joel, sitting at the editing desk, would move it around and play with it.

Barnes: *Were you flexible with those changes?*

Burwell: Well he didn't tell me he was doing it. I found out about it when I finally went and saw the movie. Yes, it took me a moment to get used to it, but I really liked the film and that was, of course, just the first of an ongoing

and infinite number of lessons about how little control any one person has over a film. That's the way that it is.

Barnes: *You've said somewhere that the music for BLOOD SIMPLE was more like music, and less like film music. What did you mean exactly?*

Burwell: I guess I was probably referring to the simple fact that it wasn't written to a particular scene. I wrote it more from the point of view of 'I think this is an interesting melody or progression or sonic space and seems appropriate to the film'. Of course I now know how to synchronise music and picture. I'm usually writing around the dialogue with great care. I don't really know what's best. That's part of the art of doing film scoring, being able to write to every little moment on the screen. But of course, most films still end up changing my music: I rewrite it, we record it, but still they're re-editing the picture and they end up moving the music around. So all the care that I take attending to the dialogue and the action on the screen often is for naught. There's something nice about that time when I took no care for those things and was really just writing and recording as if it were music for music's sake.

Barnes: *Have you done that throughout your work with the Coen Brothers?*

Burwell: *BLOOD SIMPLE* was an unusual situation, if you look at the history of the Coen's, it was their first film. You do not usually take a year to re-edit a film they've already edited. That doesn't happen now. They, compared to most filmmakers, really do shoot what's on their storyboards and they put it together. Sometimes they tighten films by dropping bits here and there and occasionally a whole scene will get dropped out, but, in fact, because they write and produce and direct and edit, the films are much more what you'd expect they were. If you read the script, the film that comes out the end is much closer to what was written. If you look at the storyboards, it's much closer to the storyboards. Most films I've worked on are written by one person, directed by another person, edited by another person, and all the time there are other people looking over their shoulder. In that type of process you're much more likely to get unpredictable changes, especially at the last minute, where they'll have done a preview of the film and the audience doesn't understand something so they suddenly decide to rearrange scenes or even story elements. That actually happened much less. Joel and Ethan are much less apt to, how shall I put it nicely, fool around with the music after it's been recorded, than most of my other experiences.

Barnes: *Skip said something about this has more to do with the fact that they actually have control over the product. Would you agree with that?*

Burwell: I would say that as well, yeah.

Barnes: *Are you given a script at the very beginning?*

Burwell: Not on *BLOOD SIMPLE*, but on all their other films, yes. Yes I have.

Barnes: *I've read that they write the script, they give it to you and then you talk about the appropriate music there and then in pre-production. Is that true?*

Burwell: We do. You know it varies how detailed we'll get. Usually we talk about it at least in terms of what kind of orchestration might be involved. That helps them to budget the film. Obviously the costs are very different if you need an hour and a half of symphonic music versus someone yodelling and playing banjo. So we talk about that. There's rarely a lot of discussion about that because it's pretty straightforward. You know, it's no big surprise. In *MILLER'S CROSSING* they knew they wanted a sort of a big sounding score because, compared to their previous films, they had shot it to look lush and we knew that would be involved. The same thing with *HUDSUCKER PROXY*; the scale of the film is one of the characters in the film. So again we knew it would have to be big. But that's about how much we discuss it. Then there are other films like *LADYKILLERS* or *BARTON FINK* in which they're not even sure they want any score at all.

Barnes: *So it's true that they initially didn't want score for BARTON FINK.*

Burwell: Right, exactly. And then I disagreed. But the only way to convince them that I was right was to go ahead and actually write something and show it to them against the picture.

Barnes: *So how much influence do they have over what you actually write? As far as I can tell, they don't say, 'This is the kind of music we want, so please do this'.*

Burwell: Well it varies film by film because there are obviously times when they really know what they want, and the extreme examples would be *OH BROTHER WHERE ART THOU?* or *BIG LEBOWSKI* where they've actually chosen pre-existing pieces of music to provide most of the score for the film. And then there are times when they have no idea what they want, like *BARTON FINK*. Of course those times are more fun for me. I have a much better time if the director has no idea what they want. That's when I have a more interesting job to do. If someone really knows what they want it's much less interesting, and, indeed if it weren't Joel and Ethan making the film, I probably would never work on a film like *OH BROTHER* or *BIG LEBOWSKI*

because there's just not that much to do. But we do it because, we have this ongoing relationship, and it's all fun anyway. But I have never worked with Scorsese or someone like Kubrick, who were both directors who seem to know a lot about what they want musically. One wonders whether that's fulfilling for the composers. Obviously Kubrick was quite a terror with his composers.

Barnes: *Yeah, the whole Alex North thing...so when you're discussing things with them, do you discuss anything like narrative themes or character or do you take those on yourself and interpret them?*

Burwell: There might be a passing discussion of it. Here's an example of how small the discussion is, because honestly, until the film has been shot most of our discussions about music are extremely sketchy. Say, a film like THE MAN WHO WASN'T THERE, I think Ethan and I had a discussion of what the role of the music would be, what the music has to say. Obviously they've written a lot of Beethoven into the script and I think we settled on the idea that the score was going to express longing. And that was all we said. We were looking at Crane's character and he's obviously pretty non-descript. He's sort of a cipher and that's part of the idea of the film. So we decided that the music was saying that he wants something more in life, but he, himself, doesn't know what it is. So the music hopefully just expresses a sense of longing. And that's as far as the conversation will go until the film's been shot.

Barnes: *I was also curious about that because I was wondering whether the music was supposed to embody Ed or if it was supposed to embody Birdie. In that Ed notices her because of the music. Her piano playing informs his perception of her and that it has something to do with beauty. I'm sure you know that Beethoven thought music was some form of spiritual enlightenment that could take away pain. But I don't know how referential they got with all of this?*

Burwell: Honestly, with Joel and Ethan, we really never get drunk enough to get referential. We keep our discussions pretty dry and we entertain ourselves but I've never heard Joel and Ethan get into hermeneutical discussions of any of their films, ever. For myself, I've come up with interpretations that help me with what I'm doing.

Barnes: *Did you think of it that way then?*

Burwell: Yeah. I very much thought of it as being Ed Crane. I don't remember myself or anyone else ever just thinking of the music as saying anything about Birdie. But that doesn't mean that it's wrong. I think that Joel

and Ethan would agree that everybody should be free to interpret their films the way they want and that we, ourselves, don't necessarily know what the hell we're doing. Maybe, that's what it means and we just didn't happen to think of it that way. But that was never discussed. We very much thought of the Beethoven, and the score, as being about Ed. Through the Beethoven, is something beautiful and moving. He's never had those emotions before, perhaps, in his life. Although he has known that there was an empty spot somewhere in the world and then this music - he hears it - and it seems to fill a little bit of that empty space, and that's the way we thought of the Beethoven. That it does represent something to Ed, even though Ed might not be able to say what it is, but it is something very important to him. It moves him both in the emotional sense and in terms of getting him going to do something with his life, no matter how mistaken it might be.

Barnes: *Would you say your initial lack of film music experience, or film music composing, allowed you to be more flexible in the construction of something like RAISING ARIZONA, where you used a lot mixtures of instruments and vocals?*

Burwell: I would say that's true, yeah...Joel and Ethan tend to allow as much time as they can in the making of their films. A lot of feature films are made as quickly as possible. Once you start production it's as though a stopwatch begins and you want to deliver the print as soon as possible because you've borrowed money and interest payments are due. Joel and Ethan tend to, in my experience, make the decision to pay people less money and therefore give everybody more time. There's some people who might not like that trade-off but most of the people who work with them think it's a great thing because we all get more time to think about what we're doing. And with *RAISING ARIZONA* there was more time to experiment than I have had on most films.

Barnes: *Was it your intention to make it more cartoon-like?*

Burwell: Yes, because obviously it played that way. The whole film, I thought of, and still think of, as a live-action cartoon.

Barnes: *Because obviously the mickeymousing and the stings on exact actions seems to be something you don't normally do and you obviously didn't do at all in BLOOD SIMPLE. That was the complete opposite.*

Burwell: Exactly.

Barnes: *I had read that some critics reckon that the whole film is a dream. They say that at the end, during the very sequence where he says "That*

night I had a dream" and then goes off into this thing and ends saying "Well maybe it was just wishful thinking" that since he's narrating the whole film and you only hear it from the inside of his head, that it mean it's all a dream - a form of wish fulfilment. But what I argue is that there is a significant change in the way sound is used, at the end of the film, that marks it as a dream sequence.

Burwell: I agree. I would accord with your interpretation. I'm not sure if this is true for Skip's work but it's certainly true for my work, but there are two scenes where there is a noticeably difference in tone than the rest of the film, and one of them is the one you've just described. The other is the scene in the middle of the film where he's writing a letter to Ed - that also is intentionally a very different sound than the rest of the score...The film, as I said, is a live action cartoon as far as I'm concerned. But the intention there was to make it be different. We wanted the audience for a moment to enter into his emotional life as if he were a real person and put aside, for a moment, the cartoony aspect of the film.

Barnes: *I've notice the Coens like to repeat themes a lot. And therefore your music repeats a lot. They have a sort of circularity in a lot of their plots. Skip said that that's just their sense of humour. It tends to come in cycles.*

Burwell: Well yeah, that's true. I mean some things are only funny when they've happened two or three times, usually three. But I don't know honestly. You're absolutely right. That's very true of the way they write, they tend to repeat bits of dialogue and there are situations that tend to repeat. But I don't know. I think that this really is just at such a personal level; it is just their style of writing.

Barnes: *Like in BLOOD SIMPLE, after the burial, when he's about to start the car and the car stalls, you're music actually stops. Can you say something about that or is it just so obvious?*

Burwell: I will say that *BLOOD SIMPLE* is probably one of the most repetitious themes I've put out there, that piano theme, perhaps rivalled by the BARTON FINK piano theme. And I would say that one of the things that repetition does is it creates a certain kind of tension because you wonder 'How long can this thing repeat?'. Well, on the one hand, yes, it could be put you to sleep, but there also is a certain tension in repetition because you are waiting for it to stop or end or something. So, in that scene, we used that tension for comic purposes. You hear the scene, you're familiar with it and then it stops and that stop provides release for the audience who've just been through a harrowing situation. Just by stopping this thing that we've heard repeat on and off through the whole film - stopping it, especially abruptly - it

just allows this release for the audience and they get to laugh. That's usually the response that I've experienced. And so one of the tools that repetition allows you is the tool of stopping. And so we just used it for a particular purpose there.

Barnes: *I've also read that you said that the opening title music for MILLER'S CROSSING suggests love between Tom and Leo.*

Burwell: Well that's slightly misquoted. My intention in the theme was to suggest love between the two of them, but, and that was part of my original concept of the score. When I first saw the film I spoke to Joel and Ethan about it and I said I thought something warm and almost romantic would be interesting. And they didn't agree. It wasn't something that they'd had in mind and that idea seemed odd to them. And so then I said "Well were you thinking something cold?" and they said "Mmm, no. How about neutral?" which is not an unusual conversation to have with them. Most directors have a certain discomfort when it comes to the composer's role. They know how to talk to the actors about where they should stand or how they might deliver their lines. They know how to talk to the set designer about whether there should be more blue or things like this. It's very common for directors to feel that, after all the work they've gone through for a year or more on this film, that at the very end they have to hand the film over to a composer who speaks a language that they don't understand - the language of music. And this person is going to suddenly change the emotional tenor of the film in ways that they can't predict and deliver a changed film, after the director's had so much hands-on control all this time. So it's not unusual to have people be a little uncomfortable with the emotions that music brings to their film. Especially for people like Joel and Ethan who have had an extraordinary amount of control over the process. They just hadn't anticipated that the music might be warm in this very brutal film, so they were uncomfortable with it. When they said "Well how about neutral?", I was thinking that if you could suggest with the music that all of Gabriel's character's actions throughout the film are actually tied to his love for Albert Finney's character, that that would help to give some reasoning to what he's doing, which otherwise sometimes seems to not make any sense because he's performing these double-crosses or crypto double-crosses. So that was my idea and when I played the theme for Joel and Ethan, and they liked the theme. They saw immediately how this warm music, against this cold film, lent it something new that helped Gabriel's character. But after sitting down and describing exactly where the music is going to go, it turned out that there were no scenes between Albert Finney and Gabriel Byrne's character in which I could put score. I have this grand plan and I think it's going to really help to explicate the film and it's the purpose to which I've written this theme, but in the end there just isn't any place to put that music where it would serve the

purpose I had in mind. It was an interesting experience and it teaches you that all of the theorising and discussions is one thing, but when you actually get down to putting the music into the picture you can often find that all your ideas are for naught. So, yes, that was my idea was for the music to describe the love between these two men, but in the end, I'm probably the only person who thinks that's what it's doing.

Barnes: *But obviously they kept that music.*

Burwell: Yeah, the music suggests that within Gabriel Byrne's character there is somewhere inside him there's a sappy Irishman, who's got this very cold mask on through most of the film. It gives some depth to his character even if it's ill-defined - even though you don't know necessarily what it is that he's pining for.

Barnes: *I would see it tied to the whole idea of 'Where's your heart?' It, in fact, reveals his heart which is hidden throughout the film.*

Burwell: Right, exactly. The music suggests that there is a heart in there somewhere and that he's feeling something, or he longs to feel something. I don't know. Without being too specific about it. And there's something to almost arbitrarily putting warm music against a cold film, because it's adding an element that's not there in the film already and it just provokes the audience. You could say putting cold music against a warm film or violent music against a romantic film. Those types of contradictions are provocative for the audience. People don't attend to the music in the films usually consciously, so they're not consciously asking themselves "What the hell does this music mean?" But I think that at an unconscious level it does sort of get a person's imagination riled up when you experience those kinds of contradictions.

Barnes: *Were you involved in the re-recording of 'Danny Boy'? Was that done under your supervision?*

Burwell: Yeah. We'd originally planned on finding some other song to put in that scene, because we felt that 'Danny Boy' was a little too cliché. But, as we listened to song after song, Joel and Ethan ended up cutting the scene to a recording of 'Danny Boy' because we just couldn't find anything else. We were always talking about it as just a sort of placeholder that would be replaced by some other song eventually, but they used a recording that Frank Patterson had done. They cut the scene to the music, but they also cut the music to make it match picture. Sort of cutting both at the same time. In the end, we just thought, after a month or more of looking, we gave up on finding anything else and decided that we would just accept that this was the

song that's going to fit there because it fit so well, especially now that the picture had been cut to it. I think Ethan, on a lark, tried to find out what Frank Patterson was doing to see if he would be interested in the scene. As it turned out, at that time, he was in New York. So he just came by the cutting room. He watched the scene. With that kind of scene, you've no idea how anyone's going to react, especially without seeing the whole film. He had probably just never thought of Danny Boy with those kind of images, but his reaction was "Oh this will bring the song to a whole new generation. It will mean something new to a new group of people." So he was really up for it. We decided we would record it in the old-fashioned way where Frank would sing and we'd have a conductor who would conduct the orchestra, following Frank, as he sang. We talked Frank through the scene because, as I said, we recut the song to certain things in the film. There were areas where we wanted a certain word to fall on a certain action on screen. We gave him those cues and, needless to say, he was a consummate professional and he learned where those words were. He watched a video playback and sang and meanwhile the conductor followed Frank. We had a little orchestra. We thought that would be representative of the arrangements for Irish music that might have been recorded in the twenties or thirties. We got it on the second take. It was kind of amazing.

Barnes: *I think you've already said, but the rich detail in the score is to match the rich detail of the film.*

Burwell: Yes.

Barnes: *In terms of collaboration, which is a big part of what I'm going to write about, what basically aids your collaboration with both the Coens and Skip?*

Burwell: The simplest thing is we get together pretty regularly and talk, especially with Joel and Ethan, that's the main thing. They usually will come to my studio and listen to synth sketches of the scores I'm developing on major lines and we'll listen to it and we talk. And sometimes it's very hard to talk about it, sometimes the music doesn't work and we all try to come up with some words to describe what doesn't work about it or what's missing. That's probably the hard part. When it does work, great, we have nothing to say. Something like FARGO worked right away. They got my idea of what I wanted to do and there was really no discussion. Something like HUDSUCKER PROXY, most of what I was doing didn't work, and it was just pretty hellish for me. But it's an interesting experience because, of course, we have to try to find words to talk about it. I have worked with other directors who feel that the best way to explain to a composer what should happen is to play him another piece of music, or play him something from the temp score for the

film and that's certainly not my idea of being helpful. But I think it's interesting to ask why that's not helpful. To me, you can see why the director would think that's helpful because he doesn't speak a musical language. A lot of directors are also not verbally gifted. That's just not why they are directors. So this seems like a shorthand way to get what you're after. But the problem for me is that you're presented suddenly with something that's concrete, this other piece of music, when we're supposed to be having a discussion that's more abstract. We're supposed to be discussing what is it that music will bring to this scene and what is the meaning of the scene. These sorts of things. Talk about mood, talk about character, talk about story...

Barnes: *Is that an inherent problem with the industry? Or is that something else?*

Burwell: Well the problem with temp music is, you could say, an inherent problem with the industry. It's not anyone's fault. The reason why it's happening now, I don't know. I've heard evidence of people using temp scores fifty years ago. You might know more about that than I do. But the reason why it's a kind of problem now is that with very condensed schedules, which, as I say, are mostly the result of financing issues, the Studio needs to preview the movie, put it in front of audiences - at the very least they need to get marketing information from audiences. They're also hoping that the audiences will either like the movie or tell them why they don't like the movie. They need to do this before the score has been recorded. Because frankly by the time I write and record the score, they're ready to begin the final dub of the film and then they're ready to print master a few weeks later. There's just no time left at that point. So, they need to do these previews before I've written and recorded my score and they don't want to preview the movie to an audience without any music in it because they're afraid the audience will be at a loss. So that's why almost every film has a temp score in it. That's not true of Joel and Ethan because their contracts vary as to whether they're required to preview their films or not. But mostly they don't preview them and mostly they don't preview them with temp music when they have to preview them. But the problem of the tyranny of the temp, as it's sometimes called, is that it is an industrial problem that, as I say, it's not the fault of any one person. It's the fault of schedules and I think perhaps the fault of these budgets. I think it's too bad that films cost so much because the more the film costs the larger the audience it will have to appeal to, and the larger the interest payments are that accelerates the schedule. It's a problem all round. They have to sell so many tickets that that they have to preview the movie to be sure that it absolutely appeals to a ton of people. It's just all sorts of things that fall out of these large budgets that I think are a problem.

Barnes: *Do you think that if filmmakers, directors, producers, etc. were better educated in terms of music and sound, it would help this problem?*

Burwell: Well it's not going to get rid of the temp because they're still going to need to do previews. They're still going to need to put temp music in.

Barnes: *Would it help them to communicate with you?*

Burwell: I'm not sure whether having directors that are better educated about music is a good or a bad thing. I think it's probably a good thing. I've worked with some directors, Todd Haynes, probably the most striking example, who is so smart about music that he's sensitive to the tiniest little things. I worked on one film with him, *VELVET GOLDMINE*, and it just blew me away how perceptive he was about music.

Barnes: *Are you saying in a good way or a bad way?*

Burwell: In a good way. But there are plusses and minuses, because as I'm getting towards making the final score there's a lot of steps along the way in which I'm doing stuff really fast, really sketchy. They're basically musical storyboards that I'm putting in front of directors and I don't want them to pay attention to the little things like the fact that this synth clarinet doesn't have the right vibrato, or the reverb on the timpani doesn't sound right. Because these are all synth things that are all going to get replaced in a few weeks when we do the real recording. I prefer to have the director just really ignore the little stuff and think of it as a storyboard and try to use his imagination to know how it's going to sound in the end.

Barnes: *What about in terms of the narrative themes or narrativising?*

Burwell: Well I think that that's the important thing. It sounds as if you shouldn't have to say it, but in fact directors should actually have some idea of what their film is about. Not just the story, but the film. What are people supposed to come out of the film with? What has it given them when they experience it and step out of the theatre? And for some directors you get a sense that they don't really know that. They like things about the film and they're very excited about shooting it, but they'd be totally at a loss if you had to ask them what the film was about or why we were making it. And I think it's helpful to know that because I certainly would like to be able to discuss that with the director. And then beyond that I think that the discussions between director and composer should be probably on a par with the discussions between the director and the screenwriter or the director and the actors. The discussions should really be about drama and emotion and

cinema. They shouldn't really be about music as far as I'm concerned. It's really not helpful to have a Director say, "I think what you need here are woodwinds. Woodwinds against a small string section." That's not helpful to me. In fact, it's often been a problem because a director will say, "What I want is a trumpet", and what they're really thinking of is an oboe but they don't know until they say "Yeah, how about a trumpet" or "This must be a major chord." A little bit of musical education is dangerous in that sense.

Barnes: *But is it generally the norm that they don't even know how music can help tell their story?*

Burwell: I don't think that that's the norm, but it does happen sometimes. I find it to be more true with the younger generation of directors who have either come out of TV commercials or videos or something like that, where they don't really understand the idea of a longer form so they don't know how themes develop and intertwine. If they had had a little more experience of other forms - opera would be an example, or some symphonic forms - they would be able to grasp how, over a course of an hour or two, things can be made to develop. It means, in other words, they'd understand also why, at the beginning of a film, you could have a scene that was not fully stated. You know, they wouldn't require everything to be said right up front. On the one hand, you think that seems straightforward, but it's not necessarily straightforward. Some people don't understand that, because they've worked in forms which are shorter and where they do need to actually say everything right away. Because if you come out of TV commercials you have to say everything right away. Or they come out of music videos where they're used to having music drive the image and the idea of music doing less is alien to them. I don't feel that directors who are uneducated about music are in any way at a disadvantage. I think the most important thing is just what you call communication skills, being able to put your thoughts and feelings into words. That's the most important thing.

Barnes: *So, would you say the Coens are those sorts of filmmakers?*

Burwell: Oh yes, because they're writers. My happiest experiences are almost always working with directors who are writers. I really love that. Because, yes, they like to talk, they like the challenge of trying to describe these things, and as I said, Joel and Ethan are not going to do interpretive exercises on their films. That's not of interest to them, I don't think anyway. I certainly have never experienced it. But we will talk about what the purpose of a scene is, the meaning of the scene and what music would bring to it that wasn't there before. Things like that. And that conversation is one of the things that is really enjoyable about this work for me.

Barnes: *How much ground do you give to Skip when you're working?*

Burwell: All sound designers as far as I know, usually work in different spaces. We're not side-by-side that often. But the best thing about my experience is that we usually spot the films together, which is not a common procedure, although it should be.

Barnes: *That's definitely one of the things I want to put forward.*

Burwell: Yeah. And that's such a simple thing and I think ought to happen all the time, but it doesn't. It's hard for me because I live in New York and a lot of films I've worked on are being post-produced in California. So it's not a simple thing for me to get together with the sound editor. The sound editor would either have to travel to New York or I'd have to go to LA, but still it's such a useful thing. Even if all it did was result in a better final mix, because we're not going to fight over who's the loudest, which so often is what final mixes come to.

Barnes: *Would you agree that BARTON FINK was your closest collaboration?*

Burwell: Definitely.

Barnes: *Could you give me a specific example of how you worked together?*

Burwell: First, as I told you, Joel and Ethan didn't necessarily think the film required any music. They thought of it as largely a sound design issue. In the same way, the visuals are really abstract, where the camera just moves in on a piece of wallpaper or on a blank sheet of paper. They thought of the sonic power of the film being similarly sort of abstract. Therefore Skip's work was often, what you might call, non-naturalistic. The sounds at the hotel are sometimes like submarine sounds. Watching the film before the sound effects had been built, you would never have guessed that every time someone opens a door there's this whooshing sound. The sonic space Skip created is something that you could not just guess by watching the film. Often before a film you can guess what the sound effects person is going to do like there's lightning outside or there's going to be thunder or there's a gunshot there's going to be a loud bang. But in BARTON FINK it would not be easy to guess what sounds were happening in most of those scenes. That was one reason why the spotting was important. You could be watching a scene that just takes place in a hotel and Skip might say, "I've got these very low creaking sounds, like the metal plates, the bulkheads of a submarine, creaking." And so I'd say, "OK, I'll let you have the low frequencies here and I'll do a high violin note that will echo the mosquito we had in the previous scene." And then, we'd come to the next scene and Skip would tell me what he had in

mind. And then I would say, "Then I'll do this." And sometimes I knew what I wanted to do and I told him. We often traded off the frequency range for the picture. Skip would say, "You've got this dangling thing you want to do with prepared piano in the low middle range, so I'll stay away from that. I'll just do some wind sounds here."

Barnes: *So it was mainly just some give and take?*

Burwell: Exactly, there was a lot of give and take. There were some times where some scenes which were so sound-driven, like when the camera goes down into the drain in the bathroom, that Skip gave me copies of what he was working on before we recorded the music, so that I would have an idea about that. Or the wrestling scene from before that...So there were scenes where the sound is so important and so, how can I put it, non-intuitive, that he gave me copies of what he was working on. I don't remember whether I gave him copies of what I was doing or not. I don't recall. But as far as I'm concerned that film was much more sound-driven than music-driven, and the important thing for me was for me to hear what Skip was doing.

Barnes: *Was that style very different from what you did before and afterward?*

Burwell: It varies. THE MAN WHO WASN'T THERE was a little bit like that. We spotted it together. It's another film which is pretty minimalistic in a number of ways and where it was useful for me to know was what Skip had in mind. But BARTON FINK is by far the outstanding example of that. Every film usually has something, somewhere. Like in HUDSUCKER PROXY we had to talk about what the sound of the clock was like because that's a very recurrent thing, and there's often music going on when we're either inside the clock mechanism or outside the clock. So we discussed that. I had to get an idea of what the tonality of the clock was and the bell and things like that. So most films have some thing like that, but honestly, for most films, other than the ones where Skip is working, this conversation often never happens at all.

Barnes: *And is it just basically down to how much time you've got, regardless of whether it's Skip or it's somebody else?*

Burwell: It is. I have definitely worked on other films where we do have the conversation. I worked on a film with Matthew Kassovitz and he and everyone working on it were in Paris, but his sound effects people were very interested in sending me copies of things and I wanted to sample some of their sounds - subway sounds and things like that. I sampled them and worked them into the music. I worked on a film called THE CHAMBER where

the gas chamber is one of the story themes. Wylie Stateman, who was the sound designer, had been working on a lot of metallic sounds for the gas chamber, so I asked him if I could get some of those and sample them. So, it's not that it never happens, but it is rare, and it's mostly because we're physically in different places. It's just not a normal part of the process. If you want that conversation to happen, you have to go out of your way to make it happen. And, as you say, the schedule's short. Everybody's rushing to make their deadlines.

Barnes: *You'd think with video conferencing and all these other things, that you wouldn't have to do that and geography wouldn't be an issue.*

Burwell: I agree.

Barnes: *What finally persuaded Joel to go with your score for BARTON FINK?*

Burwell: Well, as usual, it was really just playing it for him. He immediately knew that it meant something to Barton's character. I just felt that there was a thing about Barton that is important but isn't necessarily that clear in the picture - that he's a complete innocent. He pretends to be knowledgeable about many things, but in fact he knows nothing about the real world at all. You could get that from the film but I just felt that that aspect of the character could use a little more reinforcement. That little, very high, almost childlike piano melody really pays off when you get to the second half of the film - it's makes that right turn when poor Barton is sitting there on his blood-stained mattress - hearing a little childlike theme over that just seemed like a hilarious opportunity. It seemed like something that would be really nice to have. So it was as simple as that.

Barnes: *Did the Coens use a temp for THE HUDSUCKER PROXY?*

Burwell: They did. It was the first time they had, because for them it was a relatively large budget picture. So they had to do previews. They still had the final cut of the film, but their contract required them to do things like previews. So they did do a temp score for that and that temp became the bane of my existence. It was really good. Todd Kasow, the music editor, put it together and it was his idea to use some of the Khachaturian pieces, and they just worked so well with the picture that, in many cases, I was never able to come up with anything to improve upon it. We just went with the Khachaturian music instead.

Barnes: *What music yours then?*

Burwell: Almost entirely what I wrote is for Tim Robbins' character. Those themes are mine and then the theme for when you're inside the clock room is mine. Oh and the theme for the descent from the building, which happens a couple of times in the movie. I think that's probably it, but that beautiful theme over the first tracking in on the clock and the snowy night is Khachaturian and the Sabre Dance is Khachaturian...It's beautiful music, but it's tough on a composer when someone finds a perfect piece of classical music that fits the picture perfectly. I'm assuming that Khachaturian had more than a couple of weeks to write that and I'm not about to claim that I'm as good a composer as he is. So if it fits the picture perfectly, it's almost inevitable that the best solution is to just go ahead and license it. It can be a disappointment but still in the end I tried a lot of things and none of them worked. But I must say the experience was pleasant because the writer was honest and straightforward with me about the problems we were having.

Barnes: *So you tried to match it as best as you could?*

Burwell: Well I didn't try to match it because it's not really interesting to me to try to match someone else's music. That's what I was saying when we spoke earlier about the problems of temp music. If some directors think, "OK, well here's how you solve the problem, I'll play the music for you that works and you'll copy it, but make it slightly different." They think they have the problem solved. This is often done and it is a very common thing to do and I'm not going to make a value judgment about it, but it's of no interest to me and also I don't think I'm especially good at that. There are a lot of composers, conservatory trained composers, who are very good at it. They look at the Khachaturian and say, "OK well I can see what he's doing. The base is descending chromatically and above it he's doing this figure. I can do something like that but I'll put it in a different key and we'll change the melody and it will be like that but different." But they should just hire someone else if that's what the director wants. It has happened occasionally and it appals me because I just think there's so many other composers who'd be so much better at doing that than I am and I don't know why anyone would hire me to do that.

Barnes: *It must be your reputation then.*

Burwell: It's weird, but I think in a way, yeah. At this point I think sometimes people hire me because of the work I've done with Joel and Ethan and they like the cache of bringing a little bit of Joel and Ethan's films into their film. Perhaps one way is to hire the people who work with Joel and Ethan. Yet, at the same time, they're not willing to give me the same palette or canvas to work on that Joel and Ethan do. And they end up, of course, not wanting to give me the same trust that Joel and Ethan do because that trust

takes years and years to develop. So it's a bit of a fix. Everyone in the industry has this. Actors who are hired all the time because of what they've done before and they're hoping they'll just do it again...It's a very conservative industry. They're looking for a sure thing. As much as some people want to think of it as a creative industry, it's an extremely conservative industry and the creativity is actually pretty hard to get through the door because when you put millions of dollars behind something, you really want some assurance that you're going to get a workable end product.

Barnes: *I've come to understand that films express a hyperreality, which is something more real than real. It's an idea that Umberto Eco wrote about in an essay in 1975 after visiting Disneyland. He noticed that everything looked like representations of other things, and how we just look at them and we accept them as real. It's in a book he wrote called Faith in Fakes. So they've taken that idea and they've transposed it into film, saying that is basically what a film is, it's making you believe something is real even though clearly everything's been manufactured. So I'm wondering if music, effects and dialogue provide an anchor to the credibility of these fictitious worlds.*

Burwell: I think that sound effects certainly do. I don't think that that's especially true of music. I mean there's nothing about music that seems to me that suggests any sort of reality.

Barnes: *Perhaps in terms of universal emotions and culturally relevant references? Like you can put western tones in something and immediately you're in the West. In that way, can you also use a particular type of music to evoke sadness or another one that will evoke anger? And, by doing so, do they anchor the film in a believable, plausible world created for the film? Or maybe I should say it differently. Can music take something from outside of the film 'in the real world' and pulls it into this fictitious world, making it more real in terms of sadness or happiness or some sort of cultural reference?*

Burwell: I think I understand what you're saying and I certainly think it's applicable to a lot of things about film. But I would tend to think that music is one area where it's not so applicable because I don't think music in general, or even those cultural references, imply any particular reality. You're right, sometimes there are specific cultural references but I think that for most people, music is manipulating their emotions based upon previous musical experiences they've had. But I don't think that it is making real something that's not currently real. I mean we often are given that job as a film composer. It's not uncommon to see a male and female lead on the screen - the chemistry's not working - and the director asks you "Can you give me something that really makes me feel like these people love each other?" That would be a good example where you're being asked to try to bring some

reality to a situation that isn't currently believable. But I don't think that most film scoring is like that. I think that in most film scoring, yes, you're using external references, but not to create anything especially real. I mean if you're already willing to say that the film has a reality, then, of course, the music's contributing to that. But I don't think the music makes the film any more real than it was before. The music, of course, becomes part of the film's reality because they're there together and also because musical themes become part of that film world. The theme from FARGO is now part of the film FARGO. So people can hear it and probably some people will think of that whole world when they hear that music. But I still don't feel that that music made anything more real in the film. What it did was, as far as I'm concerned it simply creates a world unto itself, but I'm not going to make any claims for that world being real.

Barnes: *You mean a separate world?*

Burwell: It's a separate world. To me, that's certainly the way I look at each film. They are each separate worlds...And it's the only world where these themes exist. It's the only world where you're going to hear that music for FARGO. I really feel it's the same with the costumes or anything like that. That's the only place where you're going to see those costumes. That's the only place you'll see that particular cohort of characters that is in that one little world and it's a world that's only two hours long or whatever and very much self-contained and the music I like to think of as being part of that. And I'll tell you an interesting aside to that. Some of the music I've written I own the publishing rights to. Most of it I don't. Mostly the Studios buy the publishing rights from me. But when I own the publishing rights that means that nobody can actually use the music for any other purpose without getting my permission. And people do sometimes ask me "we really love this piece from BEING JOHN MALKOVICH. Can we use it in this TV commercial?" or "Can we use it in this documentary?" And I always find that request very disorienting and I'm not sure I've ever actually approved the use of music in any of these other venues because I, myself, really think of the music as belonging really to that world. After couple of years after MILLER'S CROSSING came out, the music kept getting used in trailers for other films and it was used in a Caffrey's Beer advertisement. I think because it's an old-fashioned Hollywood score in certain ways - it was intentionally a kind of sentimental old-fashioned orchestral writing - and people were constantly using it to evoke something. I always find very disorientating, kind of amusing, but frankly kind of disturbing when I would sit in a theatre and I'd hear, let's say, the trailer for some other film and they'd have that music I'd written for MILLER'S CROSSING because I really saw that music as MILLER'S CROSSING. I think, actually, over the course of a couple years, a lot more people have probably heard that music in other contexts than they did in

MILLER'S CROSSING. It's not that MILLER'S CROSSING was an especially successful film. Probably a lot more people heard it with the beer ad than saw it with MILLER'S CROSSING. I can't stop them from doing that. In that case, Twentieth Century-Fox owned the right to do what they wanted with the music, but I found that very strange because to me the music is part of that one little hermetic world.

Barnes: *But does it aid the plausibility or believability of that real world?*

Burwell: I think that it does to a certain extent. But the reason why I think it does is a slightly different way of looking at it than what you were describing. I believe that one of reasons why the music aids that plausibility is that there has been this view of the left and right hemispheres of the brain as having their particular functions - the left hemisphere being more language oriented and the right hemisphere being more intuitive or more emotional. Let's just use that as a metaphor, whether or not it's physically true. The music addresses the right hemisphere of the brain, for anyone who's not a musician. It's been shown that actually musicians respond to music differently. They actually read it whereas most people, when they hear music, they respond to it more emotionally - not with the linguistic part of their brain. So music appeals to that right hemisphere, the emotional side of the brain. And I think that by insinuating itself in that way, music tends to aid in the suspension of disbelief. It makes us address our intuitive, non-analytical self that I think aids in that suspension. And that's part of Claudia Gorbman's phrase, where she refers to a film score as "bathing the audience in affect". And there's really something to it. It's like non-specific feeling. You sit down in your chair in the theatre, the lights go down, the music for the film comes up, MILLER'S CROSSING, for example. Its big orchestral wash comes up, and it bathes you in affect. The music's totally non-specific about what you're supposed to be feeling but I believe that that bathing in affect and that appeal to the right hemisphere just helps with the whole suspension of disbelief. It helps to make your analytical mind go to sleep a little bit. And when you put all those things together, they do contribute to the plausibility of the experience.

Barnes: *Tell me about FARGO then. How did your music ensure that it was taken seriously?*

Burwell: Well *FARGO* had a particular challenge to me. To me what the challenge of *FARGO* was that the film posits itself as a true crime drama. There's this title card at the beginning that says 'This story is true.' And at the same time the people who perform almost all the violence in the movie - Peter Stormare and Steve Buscemi's characters - they're also the buffoons of the movie. The scenes with the two of them together are almost always

comical scenes, even though they are also the ones who kill people. So it presented a certain challenge to me where you have to believe that the violence is real. You have to believe these two guys are capable of killing people and, at the same time, that the movie's really funny. The music has to allow you to laugh. It can't be that you're just appalled by these people's behaviour. It would be great if the audience really was afraid of the violence and, at the same time, was laughing at the comedy. The musical solution to me was that the music would never see the comedy. There would be nothing in the music that, in any way, suggested there was anything funny going on. The music would take all the action deadly seriously. The music would really believe that this was a true crime drama. Not only would the music take it seriously, the music would take it overly seriously and that would be part of where the comedy would come from. It would help the comedy if the music was over the top. So the opening piece sets that up because there's nothing going on, just a car driving across the snow, but the music just gets bigger and bigger and bigger, until, by the end, the timpani are in there. The music was very much inspired in part by of the music of Miklos Rosa with its big percussion and brass sound. When there's nothing going on and the music's churning away like that, there's something a little bit funny. I don't expect anyone in the audience to laugh. But it sets you up for a movie in which, what you're seeing on screen, is not the only reality.

Barnes: *Does it tell you that this film is going to be over the top?*

Burwell: Well, I think it might. It certainly says the music is going to be over the top. Who knows? Maybe. As far as the audiences knows, the next thing you see could be someone coming out with a machine gun and the police are going to go after them. The opening scene doesn't tell you a whole lot, but then as the film goes on you hear these people with these funny accents and they're all so strangely cheery all the time, but the music is still churning away on this dark tone. That begins to create the humorous situation because of just the disjunction between what you're hearing and what you're seeing. I think that that contradiction allows more latitude for the audience. If the music and the film were all saying the same thing, the audience has less latitude as to how to react. But when the music and the film are saying something that's a bit different, something comedic is happening, like the woman who is being kidnapped is running around her house into the walls and things, but the music is taking it completely seriously. There's more latitude in there for the audience to react in different ways.

Barnes: *Do you prefer writing music that's sort of counter to the story or counter to the scene?*

Burwell: I suppose I probably do. It's just a matter of personality. I like to view the world as paradoxical and contradictory. That's what makes life interesting. I'm very suspicious of people who have a well-integrated view of the universe and I assume that the universe is much richer than they would allow. But that's just a matter of personal taste. I would say that I like writing music which contributes something to the film that isn't otherwise there. That's very important to me. There's an awful lot of film scoring, and I'm asked to do it also, which doesn't do that. There's an awful lot of film scoring where two people kiss, and you're asked to write music that's romantic. Someone hits someone, and you're asked to write music that's violent. Something bad may happen any moment, and you're asked to write music that has suspense or tension. That's 90% of film scoring and like I say I'm asked to do that too, but that's a lot less interesting than when you have the opportunity to contribute something that isn't otherwise present in the film.

Barnes: *Was the collaboration between you and the Coens and you and Skip radically different during THE BIG LEBOWSKI and OH BROTHER, WHERE ART THOU?*

Burwell: No, there just was a lot less for me to do, so there was a lot less to talk about. In both those cases, the only reason I was working on the film was that Joel and Ethan were being nice to include me in the process. They were being nice to pay me a little bit of money to do a little thing. And I was being nice to agree to work on these films that offer very little fulfillment for me as a composer. We were just all doing it to be nice. That's the only way I can think of to put it.

Barnes: *I've noticed in THE MAN WHO WASN'T THERE that there is quite a lot of music in it. In fact I didn't notice until I started paying very close attention to it. Like, during the scene, where they are having dinner with Big Dave, there's all this music under there.*

Burwell: I think there is yeah. I don't think I wrote it, did I? I think it was something else.

Barnes: *Do you know anything about that? Do you know why?*

Burwell: I'm pretty sure that that's music similar to the use of muzak in FARGO, with the cheesy pieces of music that were playing in the car dealership. One of the things about a situation like the dinner party is the fact that people tend to put some music on it. It's an opportunity to say something about those characters, because unlike score, those people got to choose that music and put it on. That's true of all source music situations

really. It's an opportunity to say something very different from score because source is often chosen by a character in the film. So it's a way of saying something about that character and the choices they make or their taste, or the period. I don't know what's playing in the dining room scene. I don't remember. But I'm sure it was chosen partly with that in mind.

Barnes: *Because I had this idea that maybe the quiet music was connected to the fact that Ed Crane is such a quiet character.*

Burwell: I don't know, I really don't know. I can't say honestly that I remember that scene in terms of what might have been there musically. But usually, as I say, these choices are for you to hear something playing at source to say something about them as people. But as far as the volume question goes, the fact is often music ends up low. I mean Joel apologised to me for the music in THE LADYKILLERS seeming too low. Sometimes these things happen just because it doesn't sound too low in the room you're mixing in, or they're playing it at a high level. Then when you hear it in another theatre or you hear it at home it seems inaudible. Sometimes these things are pretty hard to control. And sometimes people are just being rushed and they concentrate on what's important, which is the dialogue, and in a situation like that, background music just gets lost.

Barnes: *Were you in collaboration with T-Bone Burnett on THE BIG LEBOWSKI and O BROTHER, WHERE ART THOU?*

Burwell: Not really. We'd say 'Hi', but that's about as much as it gets. On THE LADYKILLERS there was some because one of the things we did there is take a gospel piece and reinterpret that gospel piece in different genres. There was a rap or hip-hop version and also a baroque version. So I arranged a baroque version of this gospel piece. T-bone had some people working on a hip-hop version and we tried sort of mixing them together in various ways. But that's really the first time we've had any real collaborative effort.

Barnes: *Do composers generally work with music supervisors?*

Burwell: In general, no. They're really pretty separate things. In general music supervisors are brought on to do two things. One is to suggest pieces of source music and the other is to deal with the clearance of the licenses that are involved in getting that source music available to the film. And all this is aimed towards usually having an album in the end which has a saleable, commercially viable collection of pieces.

Barnes: *What primarily motivates your decisions on the musical content of their films? Is it geography? Character? Narrative? Emotion? All of the above?*

Burwell: It's really all the above. It really varies from film to film. For each of the things you've just mentioned, you could find a film in which that was it. Geography isn't usually it but then of course on FARGO there was a relationship between my Norwegian fiddle and the snowy, icy look of the film. The whole list of things you just gave are there. Each of them contributes something to the concept of the music.

Barnes: *Do you ever visit the set during filming?*

Burwell: I visit the set but it's almost always just for fun. I don't think it's ever really contributed anything to my work. It's really just to say 'hi'. There have been times when I worked on set. In one case I can think of is on the film ROB ROY. I went to Scotland. But it wasn't so much being on the set, I went there and spent some time there so that I could work with this band Capercaillie. So I was in Scotland and going to the set, but it was for a different purpose. It really was to work with those people. So, visiting the set, for me, is entirely extracurricular.

Transcription of the Interview with Bob Last (12 May 05)

Barnes: *How are music budgets set and who decides how much is spent on music and when do they decided it?*

Last: The answer to all of your questions is different, depending on, first of all, if it is a Studio movie, i.e. fully-funded by a major Studio. Or if it a so-called mini-major movie, i.e. the bouquet arms of the major movie Studios - an example of that would be Fox Searchlight or Focus. Or if it is an American independent movie. So almost every one of your questions has a totally different answer for those three categories.

Barnes: *Would you mind giving me a breakdown of all three?*

Last: Sure. The answer for who sets the budget for a Studio movie is generally the chief studio executive, in association with the separate music department, who will advise and consult, and who will remain responsible for that budget all the way through. It is decided before the Studio greenlights the movie. And it will be based on market factors as to the level at which they are pitching the movie, and therefore the level of composer they want to be able to attract. If it is an independent movie, the budget is set by the producer of the movie. That will be done at an even earlier stage because before they can start to raise finance at all, they will have to decide on what level of music budget they are going to be able to afford.

Barnes: *What about the bouquet ones in the middle?*

Last: The bouquet ones are actually halfway between those two processes. The mini-major, so-called bouquet ones, will have an input on the budget but it will probably be set by the producer. It is sort of a halfway house in all respects.

Barnes: *Is there ever a case where the composer themselves sets the budget, or helps to set the budget?*

Last: No. They just try and get more money than there is in the budget. Extremely rarely the composer will say when they are approached, well I'll do it but this is the budget I need. On the other hand, everybody knows by rule of thumb what sort of budget you might have to give any particular composer in order to make the job interesting. Especially if the composer has a name.

Barnes: *When they are setting the budgets, do previously released tracks go through the same process for all three of those scenarios?*

Last: It pretty much does, yes. Though sometimes that budget is resolved a little later in the day and sometimes you will work out that budget in partnership with a record label.

Barnes: *And is that because of licensing and copyright and all that?*

Last: That's because it costs a lot of money and it has a different impact on the marketplace and it has a different value to a distributor, dependent on the nature of the movie and the possible target audience. And all of those factors are considered at the time of making music budgets.

Barnes: *Is that where the role of the music supervisor comes in?*

Last: A music supervisor, if there is one, certainly gets involved in helping to pull together all of these factors into some rational picture and connecting all of these external factors to the music. But frequently, a music supervisor is not in fact on board at the time these decisions are made, so they are made in a relatively arbitrary way disconnected from any musical judgment or decision on the film. They are made on the basis of market, distribution, planned audiences and the level of finance available for the film overall.

Barnes: *What stops composers from being involved earlier in the filmmaking process? For example, is it money?*

Last: No, it is not money. It is often thought to be money, but actually it is not money. Because composers' deals are not generally time-related, composers' deals are generally due to picture. And it is not necessarily due to costs to consult with them early on. The biggest single reason why they don't consult with them early on is a historical reason in that the way that movies were made was invented at the time of silent movies and it is entirely, and in many fundamental ways, structured so it is difficult to accommodate thinking about music and sound earlier on. When you make a movie, you are creating a one-off business with a couple hundred people from scratch in a number of weeks. It has to be organised in very very traditional ways everybody understands, otherwise they don't work. That tradition goes back to the time of silent movies, so it is difficult to integrate the process. But the bigger reason is those people who are wise filmmakers know you only really find out what a film is when you see your first cut – after you've shot it – without fail, the first cut of a movie is a surprise to everybody. Sometimes it's a good surprise; sometimes it's a bad surprise. But it is always a surprise and anyone who is experienced learns that and therefore you do not want to commit to where and how you are going with your music prior to that surprise.

Barnes: *So would composers consider it a waste of time and effort?*

Last: The potential of it being a waste of time and effort is too high generally. In very rare circumstances, in certain kinds of auteur movies, that's not the case and where there are people moving or reacting to music in picture then you have to take a totally different approach – we have to have all that music made and paid for prior to shooting the movie.

Barnes: *Would it also be whether the filmmakers themselves have an idea of the musical direction they want to take the film in?*

Last: That's extremely unlikely to have an impact on whether the composer comes on early. And generally if they do, all producers and financiers will resist that. They will say to a filmmaker, "Great and let's see how it turns out and then we'll think about it." Unless there's music in picture that people have to move or react to. In which case, it's the opposite.

Barnes: *Does this have to do with ego, or personality, on the composer's part? I have to ask because I've read about some of the top composers having strong egos and big personalities that would make them unwilling to come on earlier.*

Last: No, not at all. Even the most famous biggest composers in the right circumstances would be prepared to come on earlier. I have never ever encountered a circumstance where the producers, financiers and directors wanted a composer to work earlier and they refused. There are, on the other hand, some composers - forget about ego - if they have to go back and forth and try out too many ideas and discuss and listen to too many people, the creative processes completely unravel in those circumstances. They are just not good at coping with it. There very few composers, who are film composers like that, because generally if you are a film composer you really need to be able to react in a different way. But there are some who couldn't cope with too much to-ing and fro-ing.

Barnes: *If circumstances were different, would you think it would be more beneficial for composers to come on earlier in the film process?*

Last: Rarely...I thought it was a good idea when I first started out but now I wouldn't recommend it. Mainly, because the film is always a surprise. And all composers come with a certain range of what they can cope with. No composers can do everything. And you might cast a composer with the wrong range if it were too early – with the exception of playback tracks, as I said before.

Barnes: *How often do composers read scripts? Or get their hands on scripts early in the process?*

Last: Rarely. No-one's interested in what composers think about scripts, except, do they like it enough to do the movie when you call them.

Barnes: *Would you think it would be more beneficial if they did?*

Last: No, what would the benefit be for them – for the music?

Barnes: *I suppose if they were able to look through the script they could understand narrative themes and ideas before they saw the picture.*

Last: It'd be much better if they look at the picture and never read the script, if they could – because you want them to respond to the picture. But then again, composers get a script before because when you ask them to do it, they say, "Can I read the script?" If they read the script and they don't like or don't get it, they're not going to take the job. Beyond that, a composer needs to deal with what's actually been shot. You can understand the script, but it's more important you understand what's been shot and what that movie turns out to be. Again, it's different if it's playback. If it's playback there's a value to it because you're committed to the sound of your playback very early on and it's better if that's going to be consist with the composer's vision. Often when I've worked extensively on a movie, I'm doing stuff and we have no idea who the composer is and the stuff I'm doing is determining the whole sound of the movie. I worked on a movie called CHOCOLAT, where I had to create this band for Johnny Depp before we had any idea who the composer was going to be. And, in fact, the tune for Johnny Depp's band became a reference point around which the composer eventually had to work. But there's nothing you can do about that. We thought we were going to hire a completely different composer at the point I was making these tracks for playback.

Barnes: *If a filmmaker keeps very tight to their script, wouldn't the rough cut or first cut be less of a surprise.*

Last: It never is. That circumstance does not exist, ever. It is not the nature of filmmaking. It is a misunderstanding of what a script is to think that that might happen. The script is a template that you start working on and when you're making a movie you're working with literally hundreds of people, the weather, thousands and thousands of pounds of unpredictable equipment and any number of factors. It turns into a different beast. And the reason the best filmmakers are great, even the most controlling on set, for example

Scorsese, is because they can respond to all of that. You've talked to Carter Burwell. Carter would confirm that. He'd tell he'd like to work early on a film and all of those things, but I'm sure he's confirm that movies are a surprise when you see them from the script.

Barnes: *I haven't asked that question directly, but he would probably agree with you. However, his work with the Coen brothers is an exception. I appreciate what you're saying in terms of what happens in the main, but from what I've read of them and from what Carter and Skip Lievsay have told me about them, they keep relatively close to their scripts and they do intense storyboarding. And Carter and occasionally Skip is let on early in the process with a script from the very beginning.*

Last: They are the exception to some extent that proves the rule because they of course repeatedly work together as a team.

Barnes: *Yes, that's another thing, that they use the same crew almost every time they've made a film. And also there's the lower budgets they work at, and how they deliberately try to pitch a film at a much lower budget so that they can retain that control.*

Last: What I am talking about is not about filmmakers losing control, but responding to the creative process of film. And even in the circumstances that Carter works, when they get the first cut of the film, it's not what they thought it was. Carter is working on ideas and so on and so forth, but he doesn't make the score before because he knows that...

Barnes: *No, I am not trying to suggest that they compose a score. I just meant that in certain films he might be given the back-story of the main character, which helps him to think about a theme.*

Last: But that kind of briefing is absolutely a routine part of briefing. There's just not a lot value of it happening early on in the movie, except for reasons of a composer's schedule. It's different if they've worked together endlessly as a team. Generally you don't want the composer getting a lot fixed ideas about what they think the movie is on the basis of the script before they've seen anything. It's not helpful.

Barnes: *I can see how that would be, and I would assume where most filmmakers don't write, produce, direct and edit their own material, they would have all of these competing factors dictating what the final product would be.*

Last: It's kind of in the nature of film and there are very few filmmakers who could do that. Not that the system prevents them, it's just that it's a massive undertaking.

Barnes: *What would you say stops composers and supervising sound editors or sound designers from working in closer collaboration?*

Last: That's an interesting question and there's not so much of an excuse there because I do believe there's greater value to more interaction between those two crafts. Skip and Carter are able to do that. The principal reason again is the historical basis of filmmaking, which is that production is based on silent movies and has never changed. And those industrial determinants are not stupid. If you started any other business with one person or more and a turnover of a couple of million in a matter of weeks, people would think you're completely insane. It's not possible to create organisations of any kind on that time scale, unless you have fixed traditionally ways of going about things. So it's kind of necessary that any change to working practices occurs rather glacially.

Barnes: *I don't disagree with you.*

Last: You are seeing a change now, as digital non-linear post-production becomes more of the norm in both editing and sound technically, the possibility for interaction between the two departments has been overcome. There is still a logistics barrier to it because interaction takes time. Not just the time of interaction, integrating the results of the interaction itself takes time. It's not the time to talk to each other and consult, but the time it requires exponentially increases if you are going to usefully implement the talking back and forth. That process still lags behind, but I think it's becoming more common. But again, very often, it's a very rare beast of a composer whose creative processes can really embrace that kind of thinking. Carter is one of those kinds of composers who can brace it.

Barnes: *What would encourage that sort of atmosphere then?*

Last: It requires composer to be open to it.

Barnes: *And is that just education?*

Last: Partly education and partly being confident. Some composers may be threatened by the fact that you might be able to address a certain moment with sound alone. Some composers think that's exciting; some composers think that is taking away. I think it's an education thing. For example, I've taught the National Film and Television School's composers and they are not

taught to think that way. The problem is that a lot of composers find the process of musical creation a brittle one and the more other inputs they have, they can lose their way.

Barnes: *Overall you don't see the fact that they can't be involved earlier as a negative?*

Last: Yeah. It's a long-term fantasy in the business. It only works with Carter because Carter and the Coens know each other really well, and Carter's really smart and he knows how to take advantage of being involved earlier and not to get too hung up on things. He's not that kind of a composer. For many composers, the results of them being let on earlier is they'd probably be thrown off the movie.

Barnes: *At the School of Sound conference in London, Ren Klyce was saying how, in Hollywood, technology was fragmented people even more. I was assuming it would be the other way around. And he was saying that now that you have greater technology you can make films even quicker and as you make films quicker the expectations go up and deadlines get tighter and tighter.*

Last: That's a fair argument. The fact that the technology now means that it is technically feasible to have a great deal of interchange doesn't mean it's going to happen. But all these other factors are going to be more important. I was alluding to the same thing by pointing out that the communication and the implementation of that communication costs time. Now that it's technical possible is probably a big part of why it doesn't happen. I think he's taking a particularly dark view, but it is definitely not the case that technology will naturally make this happen.

Barnes: *It still comes down to human beings being willing to talk to one another.*

Last: And money to cover the time for those conversations to happen. Everything on a movie is measured by money.

Barnes: *The Coen brothers barter for more control by keeping budgets down. So they can do whatever they want on the film, because the Studio won't care if \$7 million or \$10 million when their worried about \$200 million.*

Last: Yeah. Yeah. To some degree that's true.

Barnes: *But I assume that wouldn't work for everybody. Not everybody can make a film at that level. That's a bit of a generalisation, I know.*

Last: Yeah, it wouldn't work for everybody. People tend to find levels of budget where they can excel and the Coens are quite unusual in that they can work across a range of budgets – quite unusual – in fact, their experiences with bigger budgets has not been as happy.

Barnes: *Which will be part of my argument as well.*

Last: But that's for them. There are other people that can make great big budget movies, but they would just get completely lost if they were trying to make a low budget movie...The thing you need to know is that the financing and marketing of movies has a huge impact on the parameters within which musical decisions are made. And they are usually decided ahead of time.

Barnes: *Once they are set up, do they limit what the composer can do?*

Last: To some extent, but they limit more the range of composers you might be able to go to, and how much pre-recorded music you can get. A lot of things are set in motion at that stage.

Barnes: *The way films are budgeted seems unalterable. Is it inevitable that it will always be done this way? Is there a hint of change coming along that might suggest there are different ways of working out budgets?*

Last: No, ultimately, the only reason there's music on movies is because in market testing it has proven that people like music on movies. And if it wasn't, there wouldn't be music on them. So it's all derived from the market, even an auteur film is derived from the market. What the Coens are smart at doing is they're saying that they know this number of people will pay to see one of their films so they make the movie within a budget they'll pay for. The system maybe more or less efficient at interpreting that information, but that's what drives it. It's a little complicated with music, because it's difficult to measure it's impact but that is always the context when broad decisions about music are made. A really good music supervisor can act as an interface that understands those big financial and distribution issues as well as understanding the creative minutia of how a composer wants to work. A good music supervisor can help smooth the friction between the two, but they are not a natural fit.

Transcription of the Interview with Larry Sider (15 June 05)

Barnes: *Tell me how your programme at the National [Film and Television School] started.*

Sider: They had sound, editing and music, but like most departments they never got together. They just went parallel and came together at odd times in less than productive ways. This occurred mainly because people who teach here come from the industry and they have very professional habits. They also have to protect their turf, so it's like everyone protecting their own studios...Sound up and until recently was more about recording and then it got into editing and mixing, but it was seen to be more on the technical side. It was really bad because the composers would be let out to work on a film and then brought back, and they were taught a lot about traditional conducting and orchestrating - in isolation. And then the same thing with the sound people. They would always come in at the end. They were always seen as a service industry. You know, clean up the sound, make it nice. And they did very well. They were winning lots of awards - the Golden Reel Award in Hollywood - five out of six years. And then the editors edited and never the twains shall meet. So there were various discussions around higher education, especially in film departments, about how you integrate departments and ideas. At film school there are certain discussion triangles - one triangle is the writer, producer, director - these people should be working together - and the other one is sound, editing and music - the post-production triangle. So it was thought by head of the school that we should combine this into a post-production coordinate. And I think in discussion with people like Walter Murch, who recommended that the sooner you get music into the edits, the better off you are.

Barnes: *Was he talking about this in terms of the potential conflicts?*

Sider: No, he was talking about the affect of music on films being so profound that you couldn't leave it. It affects the whole essence of the edit, so why leave this thing to the end? As anybody who has worked on a film knows, you get the music at the end and you go, "It's not quite right, but we've got to live with it because we've paid for it and there's no time to change it." Because when you frontload the music, it becomes part of the film.

Barnes: *At what point should they get involved? At the rough cut?*

Sider: He said to get music into the edit as early as possible. I'd say at least at the rough cut, maybe the first editor's cut, but certainly at the first

director's cut stage. Get it in there; so you start seeing rhythms, you start seeing structure coming from this new music. You can start seeing if it needs music and a lot of things can flow from that in terms the amount of dialogue.

So we decided to do it that way. It needed to be an integrated, evolutionary process rather than a linear, layering process. This is a very complicated curriculum so to combine three departments that are seen as traditionally servicing the directing departments – documentary, animation and fiction – meant to find workshops where they could work together as well as feed in information from one department to another so there was cross-fertilising. That meant not only doing things with the schedule and the curriculum, but also getting people who could teach that way – and that's actually the hard part. So there were certain workshops where editors might've worked with the same people that composers might've worked with, so those were locked into the schedule. There are three workshops that work with all three departments and others where we just make sure that when they are working on the same thing with a director that we've built into the schedule crossover points so people understand what the other people are doing. For example, we have a workshop called *Without Words*. The fiction directors shoot a five-minute film without dialogue, so they must tell the story through images and sound and music. During the first week of post-production they cut it, composers are coming in feeding in ideas on temp tracks and sound people may be feeding in ideas. The second week we do the sound edit with the editors on the Avid, so it's not taken away to Pro-Tools. There are various workshops like that where we get people to work on each other's territory, making sure there is this constant overlap of work so they are feeding one other. The very first thing they do when they get here is a workshop which is done on mag stock, where they break up into teams of mixed editors, sound people and composers and they draw out random bits of different films that have been made here and then they have to create meaning from this. It's an abstract exercise. They have to use at least five recorded words of dialogue. They can use music. They can add sound effects – in a very limited way, maybe three sound effects. It makes them take random elements and build a coherent idea and it also teaches them about this relationship. This integration is worked out on many different levels, but in a very abstract playful way. So that's how we do it. But it is also getting staff and teachers who are willing break the boundaries.

Barnes: *Is there still a lot of resistance?*

Sider: I don't know if there's resistance as much as there might be a lack of knowledge of how to do it because many people are ingrained with industry methods. Sometimes getting composers to write to script and feed their own temp tracks into the cutting room can be a factor. The thought is that it

might be a waste of time and why not wait until later on, when they can see the picture and they can think about it, because they know their other ideas may not be used.

Barnes: *One argument against that is that every movie radically changes over the course of the production. So there's no point having a composer early on – even at the rough cut – or giving them a script.*

Sider: There are a number of ways of thinking at that. From the composer's point of view it cuts down on the amount of work you have to do and you can react to something solid. It's a nice way of doing it because it cuts down on the surprise for you. As an editor I've always wanted the music to be part of the editing process, and as the editing process is the thing that makes films unique, why should the music be outside that when it's such a key element of the storytelling. Why should it be added on, bolted on later? I think from an industry point of view it could be frustrating to watch something that keeps changing and you have to keep redefining in your mind – an actor does it once and you redefine their part in the cutting room. As a composer you're having to keep up with this. That's the way [Gabriel] Yared talks about his method: Give your initial inspiration, write sketches, turn them into the cutting room as your gift to the film – as an actor gives their part to the film – see what they do with it and then come back to it and re-jig it to make it nice. Or as Yared said, filmmaking is about detail. Come back and provide that detail based on what your work has turned into. That for me is more interesting. For me it makes the music a stronger more coherent part of the film.

Barnes: *Is it any more difficult for them to do it that way?*

Sider: I don't think it is.

Barnes: *It has been suggested that working that way, over the entire production, would disrupt a composer's creative flow. Especially if they have had input from so many different people.*

Sider: Maybe, and maybe you can't be part of it the whole time, like Yared said he comes in at the beginning and then he comes back at the end of the edit, but at least he knows what there is from him and he knows how to adapt that. Whereas if he had to work with temp tracks, he'd be adapting Hans Zimmer and Beethoven. I can't see why composers would like to do that, and on the whole, they don't seem to.

Barnes: *So why is there all this resistance to doing things that way?*

Sider: Oddly enough, we just had a meeting now with the graduation films, and on the whole, the composers are writing up front to one degree or another. The directors seem very happy with it. They are getting ideas. That's the other thing it does – you get feedback on your script. If you have a composer that comes back with a very sad piece of music having read your script and you think, I thought I had a comedy, you begin to think that there's something in your script that you are not aware of. In the same way an editor will read a script and say there's something illogical that happens here between the characters in scene five and I think that's something you'll have to work out because it'll cause an editing problem. On an emotional level a composer is giving you feedback. Out of the six teams, to varying degrees, most seemed happy to have music up front mostly because they were beginning to see their film in a different way. One director talked about how the composer wrote some music that brought out the loneliness of the character. He said it is very beautiful now - I can see the character in terms of music and it's helping me visualise my film. Another said they wanted the music so they could play it for the crew so everybody could get into the rhythm.

Barnes: *So how do you get the directors to connect to the other triangle?*

Sider: It's mostly letting them know there's a team there. I've really noticed it this year. They say we're already discussing the workflow and they've all looked at the rushes. They are much more aware of the process. And even if you think of this as an artificial way of working, because if they go off to Hollywood they probably won't work like that, it gives them a few more tools to work with. They know another way of working and if they try something else and it doesn't work, it's better to find three way of shooting a film than one...The composers in past years were very reticent about this and they do find it very hard. They are not used to reading scripts and that's another thing encouraged here. If you're going to work on narrative filmmaking, you've got scripts. And even though there are lots of debates on whether you read scripts, in the end you've got a script and it tells a lot about filmmaking and the story. So we get people to respond to the script in the same way you'd respond to the pictures – respond to the script now, respond to the pictures later. It's the same story. At this level of filmmaking, scripts and rushes and films can change a lot, but as you get into more professional filmmaking that doesn't happen as much. People tend to stick to the script more.

Barnes: *To my mind, even with the changes, they won't be profound because if you are deviating that far from your script and your storyboards, it's a completely different film. I can't imagine the characters radically changing and the main themes radically changing. So if you're able to get the*

composers, editors and sound designers to look at those things earlier on, you're not losing anything, really.

Sider: Yeah, if the composer can read the script and come up with ten one-minute sketches. For this scene, I've got a piano piece – nothing big – and then you can play with those and they don't necessarily go where you think they are going – that's where surprises are happening. I went to a lecture by Randy Thom and a picture editor Peter Honess. They were talking to writers at BAFTA. And one person in the audience asked, "How often does the story change in the cutting room?" Very loaded question, meaning we know you always change our ideas anyway. Honess said in the thirty of years of editing it has never happened to him that what they cut in the cutting room was profoundly different from the script and Randy Thom said in thirty years of track-laying and sound design, it happened once. They both said scenes will change; things will move around obviously, the end of the film may change halfway through. They said the story is still the same story and the characters are basically the same – you may drop a character, but basically the story is there. They said you just don't have time to change it radically. Because the whole thing is to make the film work. Even though you are going to find all sorts of exceptions to that, that's fairly common – especially in TV, where you edit to script. I just think the earlier you get in, gets ideas moving. They may be ideas you use, they may turn into thirteen other ideas that you use before you come up with something you use, but it is part of the process. When I've worked with the Quay brothers, when they did animation, the Quays got the music years before they started animating. So while they were planning their script, they were listening to the music and the music was their inspiration, their muse.

Barnes: *What do you do about the basic mechanics of conversation? Do you teach them how to talk to one another?*

Sider: Part of it is getting them to talk to each other right at the beginning of the course through bits of bounding. Like having them work a Steambeck that nobody knows about. Nobody knows what they're doing and they're all in it together, so there is a very good feel between them. They do that for two weeks. This year it was started before the course actually began as a foundation course, so the rest of the school hadn't even begun and that gives them an even better feel of 'what am I doing', 'what are the others doing' and 'why are we here'. That solves one problem because they're friends now and they'll be the ones that they're going to work with.

Working with directors is more difficult because they have to work with three different sets: documentary, animation and fiction. They all have different needs and issues and they don't get to work with them as often. But once

they start working with them on an actual workshop, my ideal is that we all sit down at the beginning and we talk about what is it that makes it different working on this kind of film as oppose to working on another kind of film – what is it about a documentary that poses challenges for an editor, a composer and a sound person? How do they work together? Do they work together in this instance or is it more separate? Can it be helped by coming together? How can these be done within the schedule and time restraints that we have? If you're editing for all this time, do you need a composer working at the same time? I think we need to do this more overtly. It happens more in composing because tutorials are now not just with the composers, they are always with the composers and the director. There's no point in talking to a composer about technique unless you have a director there because they will say, well, the director told me to do this – it's a negotiation. So there's tutoring along the lines of: what did you ask for? What are the words you used? How do you respond to that? How can this person best understand your ideas – through what kind of language? Same thing with sound and editing. How are you talking to one another? Are you talking to one another?

Barnes: *Sounds like you're getting them to build relationships?*

Sider: And hopefully, you do it before the relationship is broken down. It happens a lot in the mixing theatre. In a sense composers are different because composers all come to the school with a skill that they are adapting. Everybody else is learning a new skill. The sound people are learning the hardware and the software and the techniques that they don't necessarily know. They might've worked in sound but in different ways and you're teaching them film sound. So they're coming to terms with track-laying, ADR, etc. and then later on mixing in a different way than they are used to. And they've got somebody over their shoulder saying that they've also got to remember it is about what do you ask, how do you ask it, do you keep putting things in until somebody says that's it or do you say try this or try that. It is relationships and I think it comes down to that. Same thing with editors - editors sitting down with an editing tutor and the director saying: How did you look at it? How did *you* look at this? Did you talk about this? What was your discussion about? I think if you are going to go to a film school and do a MA, one can say that you learn by doing but I think you have to give people that something extra and I think that's it. When you are out working as a professional, no one is going to sit down with you, unless you have a very good producer, and say, "Come on guys, you've got to talk about this differently." But to actually say to somebody that we should be here talking about how we create, let's look at some of the techniques and strategies, not just how you work the film.

Barnes: *From what I understand composers are given one flat fee for their work, whereas supervising sound editors or sound designers are paid as soon as they join the film on a weekly basis and the crew gets paid the same. I'm trying to find ways of reconciling that. I know you can simply say, well, that needs to be changed so they can both do the same thing. So you have one situation where people like Carter can start whenever he wants and he's happy to do that even though he's not getting any extra money for it and where you have Skip, who must be paid as soon he starts. Is it enough to say the industry has to change the way of paying people? Or is there something else?*

Sider: It's a good question because whenever you say a composer should be working from the beginning they say we can't afford that. That's why it happens that way – they get so much money and they are only paid for five weeks and that has to be at the end. So there's a bookkeeping aspect to this. And then they could say, you are going to do the same amount of work, but you are going to do it in two different places and they might say that that will make it difficult to work on different films, etc. - things will overlap and they won't be as neat. It probably won't make any difference, but that's the way composers work. And yes, everybody else is paid more or less like casual labour. That's partly tradition because composers were always seen as artists so they shouldn't be paid on an hourly or a weekly wage – you get a fee. And that's what happened. I think you will find that some people doing sound design get paid a fee. A lot of this has to do with contracts, bookkeeping and traditional ways of doing that. I worked on a film once where there was going to be a one week overlap between the sound edit and the picture edit and I was doing the sound edit. I came in and I knew the director wanted to do a lot of work with sound so I wanted him to be around and the editor to be around in case they wanted to change the picture at all. I asked if we could have a two-week overlap. I didn't want more time; I just wanted it in a different place. They said that we have six weeks for the sound edit and they asked me why I wanted more overlap? I said I just think it'll be very handy for us to all be there at the same time, before the picture's locked off, so we can make some adjustments because maybe what we do will effect the picture. This went around and around being discussed, until finally the producer agreed to it and after that when people would look at the schedule, they'd ask why is sound overlapping for two weeks, it should be one week. And they'd say Larry wants to be creative. He's like patting me on the head – little Larry. It was so ingrained in the way they set up their schedules because a lot of the post-production gets done during the sound edit, where they can say we have a post-production supervisor on for some many weeks who can do these things, we can rent the offices for these many weeks and I was screwing that up because I was cutting down my editing time according to their overall schedule...On the Quay's first film *INSTITUE BENJAMENTE* we

didn't edit during the shoot because they said the Quay's wanted to be part of the editing. Well, that saved six weeks of an editing room after the shoot, so we ended up having twelve weeks of editing and nine weeks of sound. And again the question came up, why do you have nine weeks, films like this normally have six weeks? The producer was fine about it but the bounding agents – the people that insure the film – they have to know why are you paying people in this way? Because they need to know everything about the money and if they see it as a sound edit and the composers coming in for a certain amount of time, they want to know how that's going to affect the film – is that making more risk to insure the film? So that's why it happens and I guess if you have a system in Hollywood that works, everybody goes why you do want to fuck it up. You're taking a risk. You might have somebody work on the music for ten weeks, but then the music's no good, and then you'll have to get Hans Zimmer to come in in the last five weeks and save you, so why don't we just get rid of the first ten and leave it up to Hans. Payments change once you get passed the upper levels of Hollywood filmmaking. I'm meeting composers, like Carter, that say, give me a flat fee and I'll be there at the beginning and I'll be there at the end, but don't expect me to be there every day of the week.

Barnes: *I suppose it's more difficult to change the payment system for sound designers because they are paid on a weekly basis – that's a huge budgetary thing. I can't see why they can't allow the supervising sound editor or the head of post-production to come in and sit in pre-production meetings to talk about issues and then come back later.*

Sider: I think that does happen. It's also the union rules – you'll get more money if you follow union rules and you say I'm going to work so many days and I get overtime and all of these things. Once you start breaking that up, you are basically saying I'm willing to pay out some of my salary in order to have more input into the film. For a lot of those people, it doesn't matter. And it's the people who aren't getting paid a lot to begin with that are willing to do that.

Barnes: *Do you do spotting sessions here?*

Sider: I don't care about spotting session. If you work with sound and music in a certain way then the editor is going to be deciding where the music goes with the director. If you're working with the composer's temp tracks, the composer can come in at various times and see what you are doing and then offer feedback. If it were left up to the students, they wouldn't do it. I still think they should have markers, whether you call that a spotting session or a meeting. Because the music is coming in earlier, there isn't the need to actually sit down and say, I want a cue that starts here.

Barnes: *I suppose if you have this more integrated system, where people are talking to each other more you won't need a spotting session, where in Hollywood they need a spotting session because they aren't talking to each other.*

Sider: That's basically right. Whenever I've worked on a film, I've always found spotting sessions quite odd. I just want the composer to go away and write the music and we'll see what it's like and if they don't like it and it doesn't work, we'll do something. Because I have never worked as an editor in very traditional narrative ways, I've never had this thing where you say I want a cue here that underpins these lines of dialogue, or I want tension here. I've never had the opportunity to do that, and if I did, I'd prefer a composer to go write something and let's see what happens.

Barnes: *One of the things that Carter Burwell and Skip Lievsay do is they have shared spotting sessions, which is completely unique in the industry. They'll have the music editor and another member of the sound crew take notes, while they divide up the territory.*

Sider: I think we should start doing that.

Barnes: *Is this more of an American model?*

Sider: It works in all different ways. There are some people working more on the American model who do that and if you have American producers, it would be expected. Like after an edit period, we'll have the sound edit which is overlapping the picture editing, where directors want sound editors to come into the cutting room and feed in some ideas. Then there's an edit period, where at the beginning there's sort of a sound spotting session - What are you going to do? What are your plans? And usually composers will be part of that.

Barnes: *Would you say directors understand music more because it's more accessible than sound?*

Sider: Well, you can solve problems with music. If you've got a dodgy scene, you can say turn up the music and even if it doesn't quite solve it, it distracts you from it. Where sound doesn't do that, it's almost the opposite: sound will open up problems. I noticed that with foley. You begin to realise that something doesn't work because he's stopped moving and there are all these footsteps everywhere. If they just stopped and talked, it would've made sense but you've cut on movement all the time. Through foleys, you begin to get a sense of some of the underlying structures of the film. So you think we

just have to take out the foleys to minimise that effect and music can just go over that.

Barnes: *And I assume you talk about theory in seminars.*

Sider: Not as much we should. I think because the school is practice-based, we devote one day a week to school arts, which is history and theory. Speakers come in. They are not specifically focused on any one department. I think that's a legacy from the way the course was set up – there's no time for that. And that's what I'm trying to bring in little by little because the course was divided between learning your own department's needs and techniques, and working with the other departments. So to get in theory and aesthetics is something I really have to make room for it.

Barnes: *Obviously, it comes in directly from them doing it in practice.*

Sider: And because the students want it. The kind of students we get now want film analysis along with looking at how other people work. It's a lot to bring in a curriculum like this. It doesn't fall in easily, unless, as you said, you bring it in indirectly.

Barnes: *Could you give me some of the history of the School of Sound and tell me why it was set up?*

Sider: The idea came because I started teaching in '94/'95. I had been asked to do some sessions at the RCA. I was asked to come in because, as a lot of film schools then and still are using sound departments just to get a nice soundtrack for their films. Having come up through less than mainstream filmmaking, I've always had a lot of chances to work with sound and I thought there were a lot of missed opportunities here. And if I'm going to start teaching this, I felt it should be taken more seriously. My wife said, "Why don't you just form your own school?" and I thought, well, why not? People were starting to take short courses in film, so I thought let's create this week-long seminar all about sound. The idea was to integrate the commercial side – Hollywood - with the arts - new sound media installations. Once you started doing the sums and getting funding, the week was pared down to four days.

Barnes: *Who did you get to finance you?*

Sider: I asked the BFI, the Arts Council and the London Film and Video Development Agency (which is now Film London). I said I was trying to get this thing going. A lot of people said they didn't want to have anything to do with it, but the BFI was the most encouraging, the Arts Council sort of, the

LFVDA liked the idea but had very little money. So between the three of them, we got something like £10,000, which is the second highest figure of sponsorship that we've had over the last six years.

Barnes: *And they mainly helped you with mailings, the venue and getting the speakers?*

Sider: Not directly, but I guess that's where most of money went to. They have their own mailing lists and their own advertising, so they helped us with that. But shortly thereafter the Arts Council closed down that department and the BFI closed down that department. LFVDA still helped out, but they only provided scholarships and grants for people who wanted to come.

Barnes: *The 'Why' I guess you've already said – it's just basically bringing people together so they can talk about.*

Sider: It is I guess. The barriers that people put up in the creative process are annoying at worse and hurtful to the people making films. When it comes to something like sound that is terribly powerful, terribly effective in filmmaking, and yet people treat it in such a narrow way. There's narrow and then there's narrow. I mean you can look at Hollywood filmmaking and say, this isn't the most exciting sound design, but it's done well and it's crafted and people are thinking about it – but then you see people working on low-budget films who don't even open their minds to it and they call themselves filmmakers. And when people start seeing other kinds of films, they start saying how do you do that? And you should be able to cross-fertilise between experimental films, commercial films, European films and American films. I guess that comes from the time I was studying films that that was more common – people had a greater curiosity about that.

Barnes: *You'd think there would be much more now.*

Sider: You would think so, but no. That's the other problem I have is that though we can get these conversations going, you really have to push and you'd really like a bit more of a flow to all of this. Directors learn more about techniques – I don't mean technology – I mean practices. Working with sound, working with images, but so much now is based on the three-act play, narrative arches and all of this which binds things in a certain way.

Barnes: *Have you thought about inviting more directors on board?*

Sider: We always try to get directors on board, but they tend to be the first one's to cancel. And very often it's don't talk to me, talk to my sound designer.

Barnes: *Which is telling, isn't it?*

Appendix E

Personal Emails

The following are emails, which were written to the author while researching the topics pertinent to this thesis. Wherever possible, they have been presented in their entirety. All of them contain the sender's name and the date and time received. However, in all cases, personal information has been removed to preserve the privacy of the individuals involved. In the cases where the author's questions and the precipitant's answers are in the same email, the answers are given in capital letters and the questions are presented in upper and lower case letters. Minor alternations to the texts have only been made to clarify vague references and to expand uses of abbreviations.

Emails from Skip Lievsay

From: Skip Lievsay
Date: Sun, 01 Feb 2004 08:57:17 -0500

1. We normally spot for dial[ogue] and FX during their first cut- to get ready to temp mix for the first screening. This screening is for [the Coens].
2. [My collaboration with Carter Burwell] has changed in relation to the projects and our understanding of each other's roles and expectations. The appreciation of our past work is projected onto each new film.

From: Skip Lievsay
Date: Thursday, June 10, 2004 11:40 PM

We have used - or in this case - not used sound in this way many times. Y TU MOMA used this idea in front of every chunk of [voice-over]. a common use is silence before and after very loud sounds or sequences. Some filmmakers even claim that there is scientific evidence that this makes the loud thing louder. J & E have seen our paper - while we were dubbing 'Ladykillers'. I hope I have sent you their scribblings. If not, I'll scan and email them to you. The Coens are not making a movie right now and as such, are away - traveling and whatever. I'm not sure what the next step would be.

From: Skip Lievsay

Date: Thursday, January 13, 2005 5:08:12 AM Eastern Standard Time

In your experience, what determines when the sound designer or supervising sound editor (and composer) joins the production?

MOST OF THE TIME MY START DATE IS RELATED TO GETTING READY FOR THE FIRST SCREENING OF THE PICTURE - USUALLY THE STUDIO SCREENING. THIS MEANS 4-6 WEEKS BEFORE THE SCREENING WE COME ON TO PREPARE/RECORD/CREATE ENOUGH FX FOR A PROPER SCREENING TRACK. THE FILMMAKERS WANT THE STUDIO TO HAVE A HIGH QUALITY REPRESENTATION OF THEIR IDEAS- INCLUDING SOUND, SO THIS TEMP DUB IS USUALLY DONE IN 5.1 MULTI-TRACK. OFTEN THE STUDIO WILL ASK FOR AN AUDIENCE SCREENING OF THIS VERSION, ADDING MORE HEAT TO MAKING A VERY GOOD TEMP.

Is it the producer's/director's decision? (based on the production schedule) Is it simply a financial reason? (based on the production budget) Is it simply a practical decision? (they join when needed - depending on various factors)

SCHEDULES AND BUDGETS ARE BASED ON ALL OF THESE FACTORS. ALL FILMMAKERS LABOR UNDER THESE CONSTRAINTS - IT IS PART OF THE PROCESS. RARELY, COST IS NO OBJECT TO MOVIES GETTING MADE. MOST OF THESE PICTURES HAVE A TIGHT SCHEDULE - AS THE COST OF FUNDS IS RELATED TO THE DURATION OF FINANCING. THERE ARE MANY EXAMPLES OF HUGE CREWS SCURRYING TO UNEARTH THE DIRECTOR'S ABSTRACT SOUND 'VISION' WITHIN A VERY TIGHT FINAL DUB PERIOD. SCHEDULE TRUMPING BUDGET. THERE IS A MAXIM IN SOUND POST - SPEED-QUALITY-COST: CHOOSE TWO.

Is it the personal choice of the sound crew/composer? if so, have they any motivation to join the production sooner?

THIS 'RELATIONSHIP' ASPECT OF POST CAN BE SEEN IN MOST PROMINENT FILMMAKERS CAREERS. BEHIND EVERY GREAT FILMMAKER THERE WILL BE A CAST OF EDITORS AND SOUND EDITORS TRAVELING FROM PICTURE TO PICTURE. MOST DIRECTORS ENJOY THE DIALOGUE AND LANGUAGE THAT EVOLVES WITH THEIR CREW. WITH THE COMMON HERITAGE OF PRODUCING FILMS, COMES THE UNDERSTANDING AND TRUST THAT IS A REQUIRED FIRST STEP TOWARDS GREATNESS. ONE MUST STRIVE FOR GREATNESS IN ORDER TO ACHIEVE GREATNESS.

Is it merely the result of a long-standing aesthetic that has focused on the visual aspects of film so they are relegated to post-production because they have a secondary importance?

IN MOST CASES THE FILMMAKERS FOCUS ON PERFORMANCE AND VISUAL STYLE DURING PRODUCTION. THERE ARE, HOWEVER, MANY GREAT FILMS THAT WERE DESIGNED WITH SOUND, NOT THE IMAGE, IN THE FOREFRONT. OR AT LEAST AS AN EQUAL PARTNER.

Or perhaps it is a mixture of all of the above?

OR PERHAPS IT IS A MIXTURE OF ALL OF THE ABOVE.

From: Skip Lievsay

Date: Friday, June 3, 2005 3:17:12 AM Eastern Standard Time

I've decided to include INTOLERABLE CRUELTY and THE LADYKILLERS in my thesis. I'm currently going on the assumption that your approach to these two films was different than the Coen brothers' previous films because of the heavy Studio involvement. So, first off, is that true, were the Coens subjected to similar Studio involvement as they had had on HUDSUCKER? Or did they have total artistic control/final cut?

AS FAR AS I KNOW, THE STUDIO INVOLVEMENT WASN'T EXTRAORDINARY. ALTHOUGH THE COENS WERE USED TO THE SOMEWHAT LIMITED INVOLVEMENT FROM THEIR WORKING TITLE PRODUCERS, THE COENS' STILL ENJOYED THE TRADITIONAL EBB AND FLOW OF STUDIO PRODUCTION. BECAUSE THEY GENERALLY HAVE FINAL CUT, STUDIO INVOLVEMENT IS LIMITED. THEY TEND TO REFER TO STUDIO INPUT ON A MORE SPIRITUAL LEVEL. WHATEVER THE STUDIO INVOLVEMENT, THE COENS' SHIELD US TOTALLY AND IT HAS HAD VERY LITTLE IMPACT ON THE POST SOUND PROCESS BEYOND SCHEDULING AND, OF COURSE, BUDGETARY ISSUES.

How consistent was this film with the Coens' version of the script (assuming that's the script you'd used)?

IT IS MY UNDERSTANDING THAT THEY HAD DONE A NUMBER OF DRAFTS OF INTOLERABLE CRUELTY OVER THE YEARS FOR THE STUDIOS. THE PROJECT HAD BEEN TAKEN UP IN SEVERAL FORMS BY OTHER FILMMAKERS. THE VERSION THAT THE COENS EVENTUALLY SHOT WAS FROM A DRAFT THAT THEY HAD WRITTEN AT THE TIME THEY BECAME INTERESTED IN ACTUALLY MAKING THE PICTURE WITH CLOONEY.

LADYKILLERS WAS COMMISSIONED BY ANOTHER DIRECTOR, BARRY SONNENFELD, WHO EVENTUALLY BECAME THE PRODUCER OF THE FILM. IN BOTH CASES, THE FINAL FILMS ARE VERY CONSISTENT WITH THE FINAL SCRIPTS THEY WERE FILMED FROM.

Was your input restricted in any way?

NO.

Were you allowed early on in the production?

OVER THE YEARS, I TRY TO VISIT THE COENS ON THE SET OF EACH FILM. WE OFTEN CHAT ABOUT THE PARTICULAR REQUIREMENTS OF THE PROJECT BUT THESE VISITS ARE MOSTLY OF A FRIENDLY NATURE. I HAVE ONLY WORKED ON A FEW PRODUCTIONS SO I'M NOT SURE IF THIS IS TRUE BUT EACH TIME I VISIT A FILMMAKER ON THE SET, I GET THE IMPRESSION THAT THEY ARE GLAD TO SEE ME AS MY VISIT WILL BREAK THE BOREDOM OF THAT DAY.

I DO ACTUALLY SPEND TIME WITH PETER KURLAND, THE LOCATION MIXER. PETER AND I HAVE WORKED ON ALL OF THE COEN'S PROJECTS AND CAN USUALLY FIND SOMETHING TO WORRY OVER. FOR EXAMPLE, WHILE VISITING THE SET OF 'OH BROTHER', I HELPED PETER SCURRY TO HIDE MICROPHONES IN ORDER TO GRAB A 3-TRACK RECORDING OF THE GRAVEDIGGERS. THEIR CHANT HAD BEEN PRE-RECORDED BEFORE TO SHOOT BUT, AS THE PERFORMERS WERE MUSICIANS NOT FILM ACTORS, THEY HAD NEVER PERFORMED TO PLAYBACK. WHEN THE CAMERA AND SOUND ROLLED, IT WAS DISCOVERED THAT THEY DIDN'T KNOW HOW THE LIP-SYNC. THE COENS SIMPLY SAID "OH WELL, LETS JUST DO IT

LIVE.”

I HAPPENED TO BE STANDING THERE CHATTING WITH KURLAND. HIS RECORDING SETUP FAVORED THE OTHER ACTORS AND THEIR DIALOG WITH THE UNDERSTANDING THAT THE PRE-RECORD OF THE MUSIC WOULD REPLACE THE PLAYBACK MUSIC IN THE FINAL DUB. IN THE SHOT, THE 3 GRAVE DIGGERS/ SINGERS WERE STANDING OVER THE NEWLY FINISHED GRAVES. KURLAND AND I QUICKLY REALIZED WE COULD PLANT A DIRECTIONAL MICROPHONE HIDDEN IN THE GRAVE FRONT OF EACH MAN. WE SCURRIED TO LAY THE LINES AND MICS AND KURLAND WAS ABLE TO GRAB SOME FINE SYNC PERFORMANCES.

THE DAY I VISITED THE SET FOR 'INTOLERABLE CRUELTY' THE COMPANY WAS SHOOTING IN THE LOBBY OF CAESAR'S PALACE. WHILE NO IMPORTANT BUSINESS WAS CONDUCTED, I DID ENJOY A THOROUGH UNDERSTANDING OF THE GEOGRAPHY OF THE SCENE THAT TOOK PLACE AT CAESAR'S. I FLEW DOWN IN THE MORNING, HAD LUNCH WITH THE COENS AND PETER KURLAND, WATCHED THEM SHOOTING A FEW SCENES AND FLEW BACK TO LA.

'LADYKILLERS' WAS MOSTLY FILMED AT CULVER STUDIOS THAT IS A FEW BLOCKS FROM SONY STUDIOS IN CULVER CITY. BECAUSE I WAS WORKING ON 'BIG FISH' AT NEARBY SONY, I VISITED THE SET OF LADYKILLERS MANY TIMES. KURLAND AND I MOSTLY EXPERIMENTED WITH iCHAT/[AUDIO-VISUAL] AS A WAY OF HELPING ACTOR/DIRECTOR COMMUNICATIONS ON REMOTE ADR SESSIONS. I DID ACTUALLY DISCUSS THE EVER-CHANGING SCHEDULE WITH THE COENS DURING MANY OF THESE VISITS.

Most importantly, did it change how you worked with Carter? I know you may have been geographically separately at this time, but were there any other restrictions that hindered your normal collaboration?

THE SOUND/ MUSIC RELATIONSHIP FOR BOTH OF THESE FILMS WAS INTENDED TO BE AS STRAIGHT-FORWARD AND AS CONVENTIONAL AS POSSIBLE. THESE WERE COMMERCIAL PROJECTS WITH COMPLEX STORYLINES, WHICH THE SOUND AND MUSIC NEEDED TO SUPPORT. THE COENS, CARTER AND I WERE IN COMPLETE AGREEMENT ABOUT THESE ISSUES AND THESE PROJECTS WERE QUITE STREAMLINED BECAUSE OF THIS UNDERSTANDING.

Emails from Carter Burwell

From: Carter Burwell

Date: Thursday, January 13, 2005 2:07 PM

In your experience, what determines when the sound designer or supervising sound editor (and composer) joins the production?

IT DEPENDS ALSO ON WHAT YOU MEAN BY 'JOIN THE PRODUCTION'. IF BY THAT YOU MEAN WHEN DO THEY JOIN THE PAYROLL THE ANSWER IS MOSTLY DICTATED BY TRADITION AND FINANCE - THEY JOIN AS LATE AS POSSIBLE.

IF YOU MEAN AT WHAT POINT ARE THEY INCLUDED IN DISCUSSIONS ABOUT THE FILM, IT IS GENERALLY THE DIRECTOR'S DECISION. I OFTEN RECEIVE SCRIPTS BEFORE THE FILM HAS BEEN SHOT, AND THESE LEAD TO BRIEF DISCUSSIONS WITH THE DIRECTOR. BUT I RARELY JOIN THE PRODUCTION - IN THE SENSE OF JOINING THE PAYROLL - UNTIL AFTER THERE'S A ROUGH CUT OF THE FILM, AND I BELIEVE IT'S THE SAME WITH THE SOUND DESIGNER. IN ADDITION TO TRADITION AND COST-SAVING, THIS IS BECAUSE WITHOUT THAT CUT TO LOOK AT THE DIRECTOR (AND I) DON'T HAVE ENOUGH INFORMATION TO DISCUSS THE MUSIC CONCRETELY.

From: Carter Burwell

Date: Thursday, January 13, 2005 3:19 PM

Yes, I'm not paid for pre-production discussions. Commonly contracts call for the composer to get his first payment after the spotting session. However, I doubt this really discourages many composers from getting involved sooner. I suspect a much more likely factor is that these early discussions are so often mooted by changes that occur during the shooting and editing of a film - so that early discussions come to seem like academic exercises rather than substantive work - if you'll excuse this use of the word 'academic'.

From: Carter Burwell

Date: Friday, June 3, 2005 2:02 PM

I don't know whether the Coens had final cut on [INTOLERABLE CRUELTY and THE LADYKILLERS]. I know Brian Grazer did have some involvement with INTOLERABLE CRUELTY, and expressed the belief that the music would be very important in creating the right "comedic" milieu. And indeed, Grazer or not, I did work very hard through many iterations to get the right mood for the first piece of underscore - the big band, faux-jazz, thing.

I wasn't aware of any studio involvement in LADYKILLERS.

The films stuck to the scripts pretty closely, although again INTOLERABLE CRUELTY went through changes based on preview screenings. Some temp tracks may have been used for the preview screenings of INTOLERABLE CRUELTY, although I don't recall. Probably. Fortunately no one liked the tracks, whatever they were, and I never heard them.

I wasn't restricted in my process at all, although I was aware that, as I said, Grazer was listening to my sketches on INTOLERABLE CRUELTY, which was unusual for me.

In both cases I read the scripts before production and we spoke, very vaguely, about approach. On INTOLERABLE CRUELTY, I think our attitude about the score changed once they started screening it for preview audiences because they found that it took a very long time for folks to realize it was a comedy. This necessitated amping up the "screwball" in the opening scene.

On LADYKILLERS we spoke at length (even while shooting INTOLERABLE CRUELTY) about how to integrate "Renaissance" music, Gospel and hip-hop. Which would come first? Who would be responsible for each? We assumed T-bone Burnett would wrangle the gospel singers, and since they appear on screen they did end up being recorded first. As soon as the production was wrapped the Coens asked me to come up with some rough "baroque" interpretation of the gospel tune "Troubles of this World" to which they could cut. I gave them a synth version and they used it to cut the tunneling/burglary scene. Pretty soon thereafter we recorded a rough version with some early music players, to see how it worked when we intercut between that and the gospel. Soon after that T-bone had some LA hip-hop producers donating beats that we mixed in. Over the course of post we worked with many different artists on the hip-hop bits, so I can't even say for sure whose beats are in there in the end.

It was not always clear what role underscore would play in the picture - whether it would be a source-driven soundtrack or whether there was a larger role for score - but as soon as the Coens started cutting they started asking for more and more score. I think the first thing I came up with was for Hanks' character. I wanted to elevate his poetry recitations, taking this part of his character 'seriously', in the hope of paying off when his last recitation is interrupted by a piece of concrete hitting his head.

With regard to my work with Skip, we didn't interact a great deal on INTOLERABLE CRUELTY except to the extent that I was present while he was mixing. Post-production followed a pretty traditional flow.

On LADYKILLERS we did collaborate on the "heist" sections of the film. For instance the tunneling, the burglary, the toast, the final explosion. I needed to allow space for certain sounds - ticking of the time fuse or clinking of glasses - and we needed to agree how the [sound effects] and the various musical elements would interact. For instance, when would we be able to hear the hip-hop source and when would we play score instead? There were no particular hindrances to our collaboration.

Email from Ren Kylce

From: Ren Klyce

Date: Wednesday, May 4, 2005 6:33 PM

How are sound budgets set?

USUALLY BY THE PRODUCERS AND POST SUPERVISORS.

Who decides how much is spent on sound effects? And when?

THE FILM USUALLY HAS A SET BUDGET FROM WHICH ALL BUDGETS ARE DERIVED.
THIS IS PLANNED IN THE BEGINNING.

How much influence do supervising sound editors and sound designers have on their own salaries? Are they paid different amounts?

ALL SUPS ARE PAID DIFFERENTLY BASED ON THEIR OWN CRITERIA AND WHAT THE STUDIOS ARE WILLING TO PAY. BIGGER NAMES YIELD BIGGER SALARIES.

What stops the sound crew from being involved earlier in the filmmaking process?

YES MONEY OF COURSE. THEY DO OR WOULD GET PAID MORE IF JOINING THE [PRODUCTION] SOONER (AS MOST ARE PAID ON A WEEKLY SCHEDULE). IT IS ACTUALLY THE DESIRE TO START AS EARLY AS POSSIBLE FROM THE SOUND CREW'S PERSPECTIVE...BUT ALAS THE STUDIOS/PRODUCERS DON'T WANT TO HAVE THE ADDED EXPENSE.

Do they consider it a waste of time? In other words, films can go through so many changes before the release date, so they might as well wait.

NOT CONSIDERED A WASTE OF TIME BY ANY SOUND CREW. IT IS DESIRED. ALL SOUND SUPERVISORS WANT TO START EARLY (IF PAID).

How often do sound people read scripts before they begin work?

VERY COMMON TO READ SCRIPT BEFORE TO GET SCOPE OF WORK.

I know it may depend on if they are offered one, but I am curious to know how many ask for one and use it as basis for their work.

USUALLY IF BROUGHT ON BEFORE THERE IS A CUT, READING SCRIPT IS A NATURAL PROGRESSION. IF A CUT EXISTS BY THE TIME THE SOUND CREW COMES ABOARD (MOST COMMON), THEN READING THE SCRIPT IS NOT AS CRITICAL...NATURALLY THEY WATCH THE CUT AT THAT POINT.... DIALOGUE EDITORS FOLLOW SCRIPT DURING EDITORIAL AND ADR PHASE, AS WELL AS REFER TO THE CONTINUITY BOOK.

At the School of Sound you mentioned that technology was causing Hollywood to become even more partitioned. Can you explain that a bit more?

NOT TECHNOLOGY SO MUCH AS THE SPEED / EXPECTATIONS BY THE STUDIOS TO RELEASE (QUICKLY) A FILM TO MARKET... THE DESIRE BY THE STUDIOS TO COME OUT WITH A FILM QUICKLY MEANS THE NEED TO HIRE MORE PERSONAL TO FACILITATE THE WORK, THUS CAUSING A MORE PARTITIONED

CREW. BECAUSE OF TECHNOLOGY, WE CAN DO THE WORK QUICKLY NOW, AND THAT IS WHAT I MEANT... WE ARE ALLOWING THE STUDIOS TO GET WHAT THEY WANT IN TERMS OF TIME WHEREAS BEFORE (WITHOUT COMPUTERS) IT WAS EASIER TO CONVINCING STUDIOS THAT 'MORE TIME' WAS THE ONLY THING THAT COULD MAKE THE DELIVERY POSSIBLE.

Emails from Randy Thom

From: Randy Thom

Date: Sunday, January 30, 2005 4:24 PM

When the composer and/or sound designer is hired is almost always up to the director and producer, though they are usually working within a budget that restricts their choices to some degree.

Most of the sound designers I know would rather begin very early in the process, in pre-production, and work not continuously but in short increments of perhaps a week or two each month until near the end of post-production when they would work continuously for perhaps six or eight weeks. Unfortunately, the tradition is for all of the work to be done in the last two or three months before the film is released. The typical composer on a big budget film will only be working on the film for four to six weeks.

From: Randy Thom

Date: Monday, January 31, 2005 4:33 AM

Having a track record certainly helps. When I think they might be receptive I point clients toward my *Designing A Movie For Sound* article, which sometimes helps. I assure them that having a smaller sound crew that works over a longer period of time won't cost them any more than hiring an army of sound editors in the last 12 weeks before release. There's quite a bit of inertia to overcome, though. Certain producers and directors are so accustomed to waiting until the last second to hire sound editors that it's difficult to convince them that any other approach is an option. Sometimes their first assumption is that you're trying to rip them off. That's where our track record and client list at Skywalker helps. It's hard to argue with a history of success.

Emails from Larry Sider

From: Larry Sider

Date: Thursday, January 13, 2005 10:56 PM

From my experience, it is a combination of personal preference and money. Most directors don't know how to use a sound editor or composer early on, so they follow the tried and true methods. Producers don't want to spend any more money than they have to. Also, many productions have such tight schedules that nobody can think about sound and music until post. However, there are many directors who do start working with sound and music very early in the production because that is how they work and their producers find a way of paying for it. There's always a way!

I worked on a low-budget feature that had a six-week sound edit with a one-week overlap with the picture edit. Knowing the director really wanted to work with the sound, I asked for a two-week overlap with the edit. You would have thought I asked for the production manager's firstborn. Nobody could understand why I wanted this. It wasn't as if I wanted more time, I just wanted to work with the picture editor for 2 weeks before lock-off. In the end, when this was brought up at production meetings - which it was, very often - the explanation given was that Larry wants to be creative. And it wasn't said patronisingly; everyone took it very seriously.

I think it was Bob Last who pointed out that Hollywood composers get paid so much that most productions cannot afford them for more than 5 or 6 weeks.

From: Larry Sider

Sent: Sunday, January 16, 2005 5:08 PM

In general, what Carter says [about how composers are paid] is true, especially on larger films. However, there can be many variations depending on budgets and schedules. I'm working on a feature by the Brothers Quay and the composer was paid a flat rate for everything but was in discussions with the Quays well before shooting began and delivered tracks before editing began. So, it comes down to how people write their contracts and think of their salary.

Appendix F

Sound Interpretations of Non-Coen Brothers' films: **Earlier Papers by the Author**

Reality Stretching: The Use of Sound in David Lynch's ERASERHEAD

David Lynch's ERASERHEAD (1976) is a truly discomfoting film that appears to defy genre. Most classify it as a horror film, while others maintain it is similar to works that characterised the Theatre of the Absurd.¹ Its elusive nature simultaneously draws and repulses the filmgoer largely due to its inventive sound design. Lynch and Sound Editor, Alan Splet, working in their self-equipped studio, spent nearly a year together drawing upon a multitude of organic sources to create this level of unease for the audience. As a result, their sonic creations function like film music insomuch that they generate mood and they stir emotions. Splet and Lynch's non-traditional soundtrack is also consistent with ERASERHEAD's eerie world and its threadbare narrative. In achieving this, the soundtrack adds a further dimension to the storyline, giving greater weight to the action and the characters.

At the outset of the film, an overwhelming wall of dense, atonal noise envelops the filmgoer. It is introduced seconds before the first image, demanding our full attention, making us feel nearly claustrophobic. This powerful, diegetic drone builds in intensity, setting it anempathetic to the visuals, which are static and obscure. This occurs until an auditory dissolve links it to the next scene. It continues as layers of undulating sine waves,

¹This term was used to describe a number of European and American dramatists of the 1950s and 1960s, such as Beckett, Genet, Ionesco and Pinter. Their plays depicted a world without meaning or logic, where the absurdity of human existence was both comic and tragic (Margaret Drabble, ed., *The Oxford Companion to English Literature*, p.3).

pulses of power-driven machinery and steady flows of wind and steam. The audience is led to understand that this is some kind of prologue and the sound is its overture. Lynch described it as a 'sound collision' which he and Splet created by subtly introducing layers of atmospheric sound on top of one another in a technique more commonly associated with the practitioners of *musique concrète*² (Burman 2001). The sound resonates ambiguity, and yet maintains a consistency that connects the images together.

This vast extension³ of sound is heard throughout the film with almost no interruption. This sonic cohesion reinforces ERASERHEAD's verisimilitude as the film progresses, making the viewer feel more psychologically 'secure' within it. Splet and Lynch may have set up this audiovisual contract⁴ in such a way so one could easily accept the integration of the abstruse images and the sound. Chion (1985 p.43), commenting on the layered atmosphere in the film, adds that "[the] sound has a precise function, propelling us through the film, giving us a sense of being inside it, wrapped within its timespan". By placing the audience inside this filmic world, Lynch and Spelt helped create a more interactive cinematic experience. Feeling part of the narrative also allows for further identification with the action on screen, regardless of how intangible the images may be.

Having drawn the audience into the film, Splet and Lynch's sound design also allows the filmgoer to have a closer relationship to the characters. This is especially necessary since the characters in ERASERHEAD are both

² Musicians, such as Pierre Schaeffer and John Cage, were known for recording a variety of organic sound sources (e.g. conversations, trains, saws, airplane propellers, etc.). The tapes were then played back at various speeds, or made into loops, or played backward, or stretched, or even spliced into segments. These recordings were then joined together and overlaid to create a 'song' (MuseSpace, *Writings...Essays... Musique Concrete*).

³ A term which expresses "the degree of openness or largeness of the cinematic space suggested by the sounds...In vast extension there is as nearly infinite a dilation of the sonic space as possible" (Chion 1994, p. 222).

⁴ A term which describes the "symbolic pact to which the audio-spectator agrees when she or he considers the elements of sound and image to be participating in one and the same entity or world" (Chion 1994, p.222).

emotionally distant from the audience and from one another. As a result, this overriding sense of internalisation, when combined with its elusive storyline, grants the audience greater intimacy with those on the screen. This crude paradox is greatly appreciated because, without it, one would be completely alienated from the characters and their interactions would have relatively little significance.

Dialogue in ERASERHEAD appears to almost emerge from out of depths of this perpetual pulsation of sound. Conversations between characters are either sparse or nonexistent. Maintaining their consistency with the tone of the film, these conversations frequently communicate a sense of unease or fear. There are quite often exaggerated pauses from one line to the next. The jaggedness of interaction is consistent with the film's overall design. It is almost as though Lynch and Splet are letting the noises and ambient effects express the character interaction, where other films might use dialogue. In this way, the sound does the same job as language does in a film. A noteworthy exception is in the scene at the X's family home, which contains a majority of the dialogue in the film. Splet and Lynch create a synch point when Mr X (Joseph) begins to complain loudly about the horrible state of the city. It is said at the same time as a train passes outside and a dog barks inside. The result is a thunderous roar, which adds force his apparent anger.

Despite this consistent stream of sound, ERASERHEAD is full of sound edits that attempt to interrupt this flow. Splet and Lynch's designs never sever the overall atmosphere, creating gaps; the edits simply add to the overall atmosphere by occasionally being in synch with the images. Chion (1985, p.38) expressed that this is where ERASERHEAD is truly unique, by stating:

Its great originality lies in the use of brutal and instantaneous cuts into these sounds, cuts which often coincide with a change in shot and have surprising power. They are image tensors, insulating the shots one from another even as they

join them, drawing out each shot in relation to its boundaries, constituted by the two cuts confining the segment.

For example, when the main character, Henry (Nance), discovers that his baby is ill, the sound dramatically shifts from the familiar undulating atmospheric room tone to an eruption of organ music. The image edit and the sound edit occur simultaneously without making the audience feel like a jump cut has been made. As a result, the sight of the baby covered in pustules and lumps expresses a greater repulsion. In another example, Henry finds his female neighbour from across the hall with a man and there is a radical transformation of sound. In this extremely short interaction the filmmakers alter the tone heard during each camera shot. These sound edits grant the scene an exaggerated awkwardness.

Unlike Godard, who also cut sounds as he cut images, "Lynch's cuts are designed to achieve an inscription in time, amounting to a creation of time, like a demiurge" (Chion 1985, p.44). This is clearly demonstrated in the sequence where Henry, himself, does live sound editing as part of the film. He turns on a record player and places a needle down on different grooves of a record, creating silent gaps in between the music that is heard. This 'edit' is quite abrupt and unnecessary, however it is similar to other sound cuts in the film. Moreover, the needle then continues to the end of the record, where it is heard as a repetitive skip until the end of the scene. This recurring sound adds to the layers of the overall sonic atmosphere.

In addition to the sound-image edits in ERASERHEAD, Splet and Lynch also allow sound effects to constantly invade the narrative. Each one seems bold and exaggerated, stretching the audience's perception of the filmed locations and ordinary, everyday objects. For example, Henry lives in a setting that is overtly urban. The filmmakers communicate this by using a variety of

acousmatic⁵ effects (i.e. a ship's whistle, a factory hum, traffic, churning machinery) interlaced with nondiegetic organ music. By the presence of so many mechanical noises, the filmgoer is given the impression that Henry lives in a heavily industrial environment near a harbour. Despite the fact that they never see a single ship or factory in operation, the noises communicate that this is a time and a place that subsists mainly on mechanisation.

This industrial environment is further emphasised when Henry goes to have dinner at the X's house. He crosses over barren train tracks and then stands outside her house, as smoke pours into her front garden. As Mary X (Stewart) appears at the door, frantically looking for him, the sound of a 'steam' train and grinding dominates the scene. Once Henry is inside her home this sound persists at a lower volume, reaffirming its presence for the audience. The sound effects are again chiefly acousmatic, but in contrast to the scene mentioned above, the foreshadowed images of the tracks and the steam offer the viewer greater sense of verisimilitude when they hear them.

Everyday actions are highlighted by Splet and Lynch's use of de-acousmatisation.⁶ Upon entering Mary's house an offscreen sound of licking and sucking immediately attracts our attention. None of the characters appear disturbed by it, yet it is a rather unpleasant noise. It is only after several minutes that the filmmakers reveal that the sound belongs to a litter of puppies that are suckling their mother in the middle of the room. In a later scene, Mary becomes agitated because she cannot sleep and decides to return home. Before leaving, she approaches the bed where Henry is sleeping and tugs at the bed frame forcefully. The bed squeaks violently as she jerks it

⁵ A term which "pertains to sound one hears without seeing the source. In film, all offscreen sound is acousmatic" (Chion 1994, p. 221)

⁶ A term which refers to a sound that is used in "an unveiling process that is unfailingly dramatic". It describes when a sound precedes the images it is to be associated with. The author has used the word *brief* to emphasise that these disconnections can vary in length (Chion 1994, p. 131).

back and forth. Seconds later it is made known to Henry (and the audience) that she has been desperately trying to remove her suitcase out from under the bed. Both scenes show the filmmakers' great awareness of sound and how powerfully it can influence the audience's perception of the action.

Throughout ERASERHEAD Splet and Lynch give added value⁷ to household objects. Two prime examples can be found in lamps and a radiator. The sound design employed for both objects grants them an otherworldly status. Light bulbs crackle like the electrodes used by Dr. Frankenstein to resurrect his monster. In the X's home, after it is discovered that Henry and Mary have conceived a baby, the camera moves the audience across the room to the inside of a crackling lamp, which subsequently explodes with blinding force. This same escalating intensity and camera movement is also employed at the end of the film, where the viewer is once again led to the inside of a lamp which sizzles and suddenly goes out when the sound has reached its climax.

The undulating tone that accompanies the sound effects for these lamps is also used to give importance to the radiator in Henry's room. When he first

⁷ A term that is defined as "the expressive and/or informative value with which a sound enriches a given image, so as to create the definite impression (either immediate or remembered) that this meaning emanates 'naturally' from the image itself" (Chion 1994, p.221)

looks at the radiator, a layered atonal sound builds massively, alerting the audience to the fact that this object must have significance. The next time Henry gazes at the radiator this sound is repeated, but this time with more intensity as the camera leads us inside the radiator to a stage. Now familiar with the sound cue, the audience is then taken a third time into the radiator where they are met by a girl with facial deformities, who squashes foetuses under her feet. Later, the girl in the radiator appears again in what seems to be a dream sequence. When Henry touches her momentarily, the screen fills with a blinding white light and this now familiar tone bursts with severe force. At the end of the film, she returns and Henry rushes into her arms. As he does so, the tone grows in ever-increasing intensity and everything around them explodes with whiteness until it suddenly cuts to black, marking the end of the film.

ERASERHEAD is clearly a film designed for sound. One cannot imagine these images generating the same significance on their own. The narrative would mostly likely be lost and the audience would be alienated. Lynch and Splet, following their own particular concept of sound design, provided the audience with an abundance of noises and ambient effects that allowed them to have a 'true' audio-visual experience. By constructing sequencing that left space for aural ingredients, the filmmakers clearly thought sound was integral to this film's creation. Furthermore, by utilising a continuous stream of atonal sounds they saw it as a means of drawing the audience into the film so that they could respond to it on a deeper level. As a result of these innovations, ERASERHEAD stands as an example of the wider potential of film sound.

He'd Kill Us If He Got the Chance

The human voice is a marvellous tool of communication. The fact that we are able to take miniscule phonemes¹ and string them together to produce understandable and meaningful sentences suggests the miraculous. Key to this phenomenon are prosodic elements of speech (i.e. pitch movement² and stress markers³) because they give the English language a broader semantic⁴ basis for the interpretation of meaning. In other words, if the stress of a word is altered in a set of identical sentences, each sentence may very well express a completely different meaning. In view of the fact that nearly all films are dependent on verbal interaction, it is inevitable that actors and directors will utilise prosodic elements of speech to their advantage. This is never more evident than in *THE CONVERSATION* (Coppola 1974), where the main character is perceivably the human voice and the subtlety of its expression.

At its centre, *THE CONVERSATION* is a film about how one's perception of sound can lead to a particular interpretation of its meaning, and how that interpretation can colour one's thinking. The type of perceptual understanding used in this film echoes the Constructivism approach, which states:

¹ Phonemes are the smallest unit of human speech that are capable of containing meaning, such as the / m / in *mat* and the / b / in *bat*. For a phoneme to have significance, it must be recognized as a specific structure of the language use by both the speaker and the listener. The brain recognizes a maximum of thirty phonemes per second and within that time is able to separate each sound and combine them into words (Roger Lass, *Phonology: An Introduction to the Basic Concepts*, p.11).

² Pitch movement refers to the rise and fall of frequency patterns in vocal cord vibrations. It often signifies the end of a sentence, the formulation of a question and can help us distinguish between *content* (the adjective) and *content* (the noun) (Alan Cruttenden, *Intonation*, p.99 –110).

³ Stress markers in speech are usually expressed as the extended duration of a sound, the noticeable pitch change of a sound, the volume increase of a sound or any combination of these factors. They are quite often used to contrast old information with new information or to communicate an specific attitude (Alan Cruttenden, *Intonation*, p.89 – 92).

⁴ Semantics involves the study of meaning within languages. It posits that true meaning can only be discovered in the context of the utterance, not in the words themselves. Semantic meaning may be greatly influenced by the speaker's attitude toward the subject, the listener's perception of the speaker, or possibly the prior experience of the interlocutors.

"perceptions are constructed by the [listener] from perpetual 'data' obtained during active observation of the stimulus, by the [listener's] knowledge of the environment and past experiences in perceiving" (Goldstein 1989, p.23). This understanding of the reality within the film is formulated around one sentence: "He'd kill us if he got the chance"; a line of theatrical speech that is heard in synch and out of synch with the characters throughout the film. The film is structured in such a way that the semantic understanding of this line is contextualised in an extremely narrow fashion. It is limited by how the filmmakers tell the story, the knowledge we are given about the main character's past and the psychological connection he feels towards the people who had spoken the line.

The story is told exclusively from the perspective of the central character, Harry Caul (Hackman), who, in his job as a surveillance man, discovers something disturbing in his recording of a young couple. Therefore, we, the audience, only see what he sees, only know what he knows, and more importantly, we only hear what he hears in the way he hears it. As Walter Murch (2000), the sound designer of the film, comments: "We always see the truth through Harry Caul and through his ears".⁵ Therefore, in the initial scene where Harry isolates the words, "He'd kill us if he got the chance" in the recording, we are just as frightened by the potential threat they pose as he is. Our concern is further enforced when in that scene we are shown either the conversation in synch with the characters saying them (i.e. Harry's memories) or it is heard while we are shown a photograph of them (i.e. Harry's line of sight). These visual references help us to localise the source of the speech so that we, along with Harry, are given a deeper sense of psychological attachment to the characters.

⁵ Quote taken from Walter Murch's commentary on the DVD release of THE CONVERSATION (2000).

As the film progresses, the 'threat' gains a certain level of acousmètre.⁶ The constant repetition of "He'd kill us if he got the chance" haunts Harry; it drives him forward; ultimately, it moulds his thinking. Every reading (apart from the last time) is heard with a noticeable pitch change on the word *kill*. This interpretation produces an overwhelming desire within Harry to protect the couple from becoming possible victims of a larger conspiracy. It is fed by guilt over a sense of responsibility for a previous job that had ended in death. Consequently, every action committed by Harry (e.g. his reluctance to hand over the tapes to the man who hired him for the job) is based on this understanding of the sentence. Limited to his point of view, we are also forced to commit ourselves to the same line of thinking without any reason to question it.

This perspective is clearly expressed in the scene that shows us Harry's dreams. In the first one we see him walking in a foggy area, divulging personal information about himself to the young woman on the tape, and then he tries to inform the woman of the potential threat on her life. Immediately afterward, we experience Harry imagining the violent result. We are taken to the hotel room, where the murder is said to be happening, and there we catch only glimpses of the same woman being victimised by an assailant, who is most probably his employer. Both dreams visibly demonstrate Harry's overwhelming concern for the young woman and his fear that his work may once again lead to her death.

The line also acts as an anchor to Harry's repressed emotions. He is a man torn between the attachment to others he seeks and the detachment he must observe in his profession. The line in this conversation draws him out by creating an unspoken bond between him and the young woman. This

⁶ Acousmètre refers to a kind of 'voice-character' in a film that is heard but not seen. By doing so, this 'voice' creates an ominous, mysterious presence throughout the film (Chion 1982, p.17–29).

psychological anchor parallels that which comes from the primal connection we originally had with our mother while we were in the womb;⁷ it is our need for love and safety. As a result, his sense of purpose is greatly enhanced. He is “like a medieval romantic [...] Harry refuses to abandon his self-appointed mission to protect the woman he has begun to adore in a surreptitious, vicarious way” (Cowie 1989 p.88).

This is fully exploited just prior to and during the scene when Harry makes love to Meredith (MacRae), a rival surveillance man’s assistant. At a party at Harry’s workshop he is mortified when his rival secretly records his innermost thoughts. After asking everyone to leave, he retreats to his tape player and as he listens to the conversation, the recording comforts him. At this moment he confesses to Meredith, who stayed behind, his interpretation of the young woman’s character: “She’s scared...”. Meredith reminds him of his need for detachment (“It’s just a job”) and pulls him away and begins to make love to him. As it reaches the line, “He’d kill us if he got the chance”, Harry ignores Meredith’s advances and concentrates on the voice on the recording, repeating the words out loud to himself. In this scene the primal connection is shown in how the recording acts like a ‘place’ of solace and refuge for Harry; a place where he can bare his soul; much like the confessional he visits earlier in the film.

The last time the line manifests itself it leaves Harry dumbfounded. It comes after his worst fears had been realised: the murder he had been so desperately trying to prevent had been committed. Harry, still the valiant knight, attempts to march into the ‘murderer’s’ office in order to avenge this ill deed, but is thwarted by the security guards. Later, while he is still

⁷ *The womb* draws on Chion’s reference to the primal connection between the voice and the umbilical cord, which describes our desire to seek the “corporeal localization of an utterance” as well as our hope to be nurtured by a ‘motherly’ voice (Chion 1982, p.61– 62).

recovering from this, he spies the young woman, still alive, sitting in a car. He then sees a newspaper report telling him (and us) that the man he thought was the murderer had died in a car accident. At that moment everything he had understood (and we had understood) crumbles to pieces. It is then the true reading of the line is heard: "He'd kill *us* if he got the chance". Here, with the extra duration and noticeable pitch change clearly expressed on the word *us* and not on *kill* gives the line an entirely different meaning. Murch (2000) explained that this reading "makes you imagine three dots at the end of the line and in parenthesis 'therefore, we have to kill him.'"⁸ It is now clearly heard as a justification for the murder committed by the young couple. This misinterpretation had been clouded by the context Harry had imposed upon it. His past had drawn a psychological barrier around his understanding of the present. As the audience had been solely limited to his point of view, we too share in his shock and anguish.

Despite the brilliant execution of this sequence, it was totally unplanned by the filmmakers. Coppola's script did not call for an alternate reading of this line at any point in the film. It was actually a decision made by Walter Murch, after the results of several screenings proved that the ending of the film was too confusing. To remedy this, Murch remembered a slightly different reading of the line that had happened at the beginning of filming and decided to put that in at the end of the film instead.⁹ This decision was neither whimsical nor arbitrary. Walter Murch (2000) explained:

If Harry is someone who relies on technical filters [and] has used all these filters to reveal the line, but the one significant filter that he didn't remove was the filter in his mind, which says 'I am falling in love with this girl at a long distance. She is a victim. She might be killed like those others were killed. Therefore, I have to

⁸ Quote taken from Walter Murch's commentary on the DVD release of *The Conversation* (2000).

⁹ This background information was acquired through Radio 4's *Dancing Shadows* programme, which featured Walter Murch speaking about the various projects he had been involved in (Mark Burman, producer).

¹⁰ Quote taken from Walter Murch's commentary on the DVD release of *THE CONVERSATION* (2000).

protect her.' He so wanted to think of her as a victim that he chose to have the line read as a victim's line rather than really as it was delivered.¹⁰

By simply allowing the audience to hear a single shift in word stress, Murch not only resolves the audiences' dilemma, but also showed them how narrow our focus can be when we are only able to understand what is happening through one character's ears and eyes. This masterful solution gave the film an internal world, or a psychological presence, that may not have been clear to the audience had this change not been made.

Whether it is language expressed in a film or language expressed in real life, subtle changes in how words are used can lead to great misunderstandings. Actors, directors and dialogue editors need to be fully aware of this possibility when lines are being read, so that they can exploit them to their advantage or prevent them from occurring all together. In *THE CONVERSATION*, this prosodic difference is used to reveal a misunderstanding that leads to someone's death. It is a marvellous demonstration of the power of speech and how we should not allow ourselves to interpret something without knowing the context in which it was originally used. Harry Caul perceived this conversation mainly through his own tragic past and as a result of this extremely narrow subjectivity, he exerted his own context on a set of words. Those words, "He'd kill us if he got the chance", took on a meaning that he allowed his brain to colour. Constrained by this point of view we accept this semantic interpretation of the conversation as fact. Thus, when the word stress changes and the truth is revealed to him, we are just as taken aback because we know that we have heard it in the same way. Ultimately, *THE CONVERSATION* reminds us that we need to be careful of the way we choose to hear something because it might not be what was intended.

Appendix G

Film Clip Index (CD appendix)

The following clips were captured in iMovie from their DVD source and then edited and exported as QuickTime movies.

Please note: though due care was taken to collect and edit these film clips, some imperfections may have occurred as the result of compressing the data into the QuickTime format and through faults in the recording/editing software.

BARTON FINK

1. Before the first wave to the hotel bell
2. First night in the hotel to Lipnik's office
3. Wrestling dailies sequence
4. Lovemaking sequence

BLOOD SIMPLE

5. The opening car sequence
6. Night of the ceiling fans
7. Burial to musical joke

RAISING ARIZONA

8. Prologue (excerpt)
9. The Huggies sequence
10. The final battle with Smalls
11. The last dream

MILLER'S CROSSING

12. Danny Boy scene
13. The first visit to Miller's Crossing
14. Casper's office

THE HUDSUCKER PROXY

15. The blue letter
16. Norville's rise to the top
17. Development of the hoola-hoop

FARGO

18. Opening music
19. 'Realistic' violence (excerpts)

THE BIG LEBOWSKI

- 20. Opening sequence
- 21. Introduction of Maude
- 22. Jesus Quintana

O BROTHER, WHERE ART THOU?

- 23. Studio logo to reveal of chain-gang
- 24. A Man of Constant Sorrow
- 25. Lonesome Valley to flood

THE MAN WHO WASN'T THERE

- 26. Beginning voice-over
- 27. Court sequence
- 28. Birdie plays Beethoven
- 29. Crane as a 'ghost'

INTOLERABLE CRUELTY

- 30. Suspicious Minds
- 31. Herb's office
- 32. George Clooney's voice

THE LADYKILLERS

- 33. An example of music transposition
- 34. The heist sequence

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The following list contains *all* of the films and television programmes reviewed in preparation for this thesis. Most of them have been directly referred to in the paper. The remaining films were ruled to be less immediately relevant, however, they have been included for their historical and artistic significance.

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All Quiet on the Western Front, 1930. Directed by Lewis MILESTONE. USA: Universal Pictures.

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Bernardine, 1957. Directed by Henry LEVIN. USA: Twentieth Century-Fox.

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Big Knife, The, 1955. Directed by Robert ALDRICH. USA: United Artists.

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Big Sleep, The, 1946. Directed by Howard HAWKS. USA: Warner Brothers.

Bill of Divorcement, A, 1932. Directed by George CUKOR. USA: RKO Radio Pictures

Birds, The, 1963. Directed by Alfred HITCHCOCK. USA: Universal Pictures.

Black and Tan, 1929. Directed by Dudley MURPHY. USA: RKO Radio Pictures.

Blackboard Jungle, 1955. Directed by Richard BROOKS. USA: Metro-Goldwyn-Mayer.

Blackmail, 1929. Directed by Alfred HITCHCOCK. UK: Gainsborough Pictures.

Blade Runner, 1982. Directed by Ridley SCOTT. USA: The Ladd Company.

Blood Simple, 1984. Directed by Joel COEN. USA: River Road Productions.

Blow-up, 1966. Directed by Michelangelo ANTONIONI. UK: Bridge Films.

Blue Angel, The, 1929. Directed by Josef VON STERNBERG. Germany: Universum Film A.G.

Body Heat, 1981. Directed by Lawrence KASDAN. USA: The Ladd Company.

Bonnie & Clyde, 1967. Directed by Arthur PENN. USA: Warner Brothers/Seven Arts.

Boy on a Dolphin, 1957. Directed by Jean NEGULESCO. USA: Twentieth Century-Fox

Braveheart, 1995. Directed by Mel GIBSON. USA: Paramount Pictures.

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Broken Lullaby, 1932. Directed by Ernst LUBITSCH. USA: Paramount Pictures.

Bucket of Blood, A, 1959. Directed by Roger CORMAN. USA: Alta Vista Productions.

Bulldog Drummond, 1929. Directed by F. Richard JONES. USA: Metro-Goldwyn-Mayer.

Cabaret, 1972. Directed by Bob FOSSE. USA: ABC Circle Films.

Cape Fear, 1991. Directed by Martin SCORSESE. USA: Universal Pictures.

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Contact, 1997. Directed by Robert ZEMECKIS. USA: Warner Brothers.

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Day the Earth Stood Still, The, 1951. Directed by Robert WISE. USA: Twentieth Century-Fox

Day the World Ended, The, 1956. Directed by Roger CORMAN. USA: Golden State Productions.

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Detour, 1945. Directed by Edgar ULMER. USA: Producers Releasing Corporation.

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Don Juan, 1926. Directed by Alan CROSLAND. USA: Warner Brothers.

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Don't Knock the Rock, 1956. Directed by Fred SEARS. USA: Clover Productions

Double Indemnity, 1944. Directed by Billy WILDER. USA: Paramount Pictures.

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Five Easy Pieces, 1970. Directed by Bob RAFELSON. USA: Columbia Pictures Corporation.

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Lady and the Tramp, 1955. Directed by Hamilton LUSKE, et al 1955. USA: Disney studios

Lady Eve, The, 1941. Directed by Preston STURGES. USA: Paramount Pictures.

Ladykillers, The, 1954. Directed by Alexander MACKENDRICK. UK: Ealing Studios.

Ladykillers, The, 2003. Directed by Joel and Ethan COEN. USA: Touchstone Pictures.

Last Laugh, The, 1924. Directed by F.W. MURNAU. Germany: Universum Film A.G.

Last Man Standing, 1996. Directed by Walter HILL. USA: New Line Cinema.

Last Picture Show, The, 1971. Directed by Peter BOGDANOVICH. USA: Columbia Pictures Corporation.

Last Seduction, The, 1993. Directed by John DAHL. USA: October Films.

Laura, 1944. Directed by Otto PREMINGER. USA: Twentieth Century-Fox

Leaving Las Vegas, 1996. Directed by Michael FIGGIS. USA: Initial Productions.

Liar Liar, 1997. Directed by Tom SHADYAC. USA: Universal Pictures.

Liberty Stands Still, 2002. Directed by Kari SKOGLAND. USA: Lions Gate Films Incorporated.

Lifeboat, 1944. Directed by Alfred HITCHCOCK. USA: Twentieth Century Fox.

Lights of New York, The, 1928. Directed by Bryan FOY. USA: Warner Brothers.

Little Voice, 1998. Directed by Mark HERMAN. UK: Scala Productions.

Lion and the Mouse, The, 1928. Directed by Lloyd BACON. USA: Warner Brothers.

Long Goodbye, The, 1973. Directed by Robert ALTMAN. USA: United Artists.

Look Who's Talking, 1989. Directed by Amy HECKERLING. USA: TriStar Pictures.

Lord of the Rings: Fellowship of the Ring, 2001. Directed by Peter JACKSON. USA: New Line Cinema.

Lost World, The, 1925. Directed by Harry HOYT. USA: First National Pictures Incorporated.

Love Parade, The, 1929. Directed by Ernst LUBITSCH USA: Paramount Pictures.

M, 1931. Directed by Fritz LANG. Germany: Nero-Film AG.

Machine Gun Kelly, 1958. Directed by Roger CORMAN. USA: American International Pictures.

Mad Max, 1979. Directed by George MILLER. Australia: Crossroads.

Magnificent Ambersons, The, 1942. Directed by Orson WELLES. USA: RKO Radio Pictures Incorporated.

Man Escaped, A, 1956. Directed by Robert BRESSON. France: Gaumont

Man Who Wasn't There, The, 2001. Directed by Joel COEN. USA: Good Machine.

Man with the Golden Arm, The, 1955. Directed by Otto PREMINGER. USA: Carlyle Productions.

Man with the Movie Camera, 1929. Directed by Dziga VERTOV. Russia: VUFKU.

Marathon Man, 1976. Directed by John SCHLESINGER. USA: Paramount Pictures.

Mark of Zorro, The, 1920. Directed by Fred NIBLO. USA: Douglas Fairbanks Pictures

Medium Cool, 1969. Directed by Haskell WEXLER. USA: H & J.

Meet John Doe, 1941. Directed by Frank CAPRA. USA: Frank Capra Productions.

Mépris, Le /Contempt, 1963. Directed by Jean-Luc GODARD. France: Rome Paris Films.

Metropolis, 1927. Directed by Fritz LANG. Germany: Universum Film A.G.

Midnight Cowboy, 1969. Directed by John SCHLESINGER. USA: Metro-Goldwyn- Mayer.

Mildred Pierce, 1945. Directed by Michael CURTIZ. USA: Warner Brothers.

Miller's Crossing. Directed by Joel COEN. USA: Twentieth Century Fox.

Million, Le, 1931. Directed by Rene CLAIR. France: Films Sonores Tobis

Miracle of Morgan's Creek, The, 1944. Directed by Preston STURGES. USA: Paramount Pictures.

Mon Oncle, 1958. Directed by Jacques TATI. France: Specta Film

Monte Carlo, 1930. Directed by Ernst LUBITSCH USA: Paramount Publix Corporation.

Mr Hulot's Holiday, 1953. Directed by Jacques TATI. France: Cady Films

Mr. Deeds Goes to Town, 1936. Directed by Frank CAPRA. USA: Columbia Pictures Corporation.

Mörder Dimitri Karamasoff, Der/ The Brothers Karamozov, 1931. Directed by Fyodor OZEP. German:Terra Film.

Murder, My Sweet/Farewell, My Lovely, 1944. Directed by Edward DMYTRYK. USA: RKO Radio Pictures.

Napoleon, 1927. Directed by Abel GANCE. France: Pathé Cinéma.

Napoleon's Barber, 1928. Directed by John FORD. USA: Fox Film Corporation

Naughty Nineties, 1945. Directed by Jean YARBROUGH. USA: Universal Pictures.

Never Cry Wolf, 1983. Directed by Carroll BALLARD. USA: Walt Disney Pictures.

Night Must Fall, 1964. Directed by Karel REISZ. USA: Metro-Goldwyn-Mayer.

No Exit, 1962. Directed by Vladimir USSACHEVSKY. Zenith International

No Nukes, 1980. Directed by Daniel GOLDBERG et al. USA: Muse.

Nosferatu, Eine Symphonie des Grauens,1922. Directed by F. W. Murnau. Germany: Jofa-Atelier Berlin-Johannisthal.

Nothing Sacred, 1937. Directed by William WELLMAN. USA: David O. Selznick Productions.

Notorious, 1946. Directed by Alfred HITCHCOCK. USA: Selznick International Pictures.

Nutty Professor, The, 1996. Directed by Tom SHADYAC. USA: Universal Pictures.

O Brother, Where Art Thou?, 2000. Directed by Joel COEN. USA: Touchstone Pictures.

Offret/The Sacrifice, 1986. Directed by Andrei TARKOVSKY. Sweden: Svenska Filminstitutet.

Of Mice and Men, 1939. Directed by Lewis MILESTONE. USA: Hal Roach Studios Incorporated.

Oklahoma!, 1955. Directed by Fred ZINNEBANN. USA: Magna Corporation

Old San Francisco, 1927. Directed by Alan CROSLAND. USA: Warner Brothers.

One Hundred Men and a Girl, 1937. Directed by Henry KOSTER. USA: Universal Pictures.

Panic Room, 2002. Directed by Michael FINCHER. USA: Columbia Pictures Corporation.

Paper Moon, 1973. Directed by Peter BOGDANOVICH. USA: Paramount Pictures.

Paramount on Parade, 1930. Directed by Edmund GOULDING, et al. USA: Paramount Pictures.

Parenthood, 1989. Directed by Ron HOWARD. USA: Universal Pictures.

Persona, 1963. Directed by Ingemar BERGMAN. Sweden: Svenska Filmindustri (SF) AB.

Per un Pugno di Dollari/A Fistful of Dollar, 1964. Directed by Sergio LEONE. Italy: Jolly Films.

Peter Pan, 1924. Directed by Herbert BRENON. USA: Famous Players-Lasky Corporation.

Philadelphia Story, The, 1940. Directed by George CUKOR. USA: Metro-Goldwyn-Mayer.

Phone Booth, 2002. Directed by Joel SCHUMACHER. USA: Fox 2000 Pictures.

Picnic, 1956. Directed by Joshua LOGAN. USA: Columbia Picture Coporation

Pierrot Le Fou, 1965. Directed by Jean-Luc GODARD. France: Rome Paris Films.

Postman Always Rings Twice, The, 1946. Directed by Tay GARNETT. USA: Metro-Goldwyn-Mayer.

Postman Always Rings Twice, The, 1981. Directed by Bob RAFELSON. USA: Lorimar Film Entertainment.

Professione: reporter/Passenger, The, 1975. Directed by Michelangelo ANTONIONI. Italy/France/Spain: CIPI Cinematografica S.A.

Psycho, 1960. Directed by Alfred HITCHCOCK. USA: Shamley Productions

Putney Swope, 1969. Directed by Robert DOWNEY, Sr. USA: Herald.

Raiders of the Lost Ark, 1981. Directed by Steven SPIELBERG. USA: Lucasfilm Ltd.

Raintree Country, 1957. Directed by Edward DMYTRYK. USA: Metro-Goldwyn-Mayer.

Raising Arizona, 1987. Directed by Joel COEN. USA: Circle Films.

Rebecca, 1940. Directed by Alfred HITCHCOCK. USA: Selznick International Pictures.

Red Rock West, 1992. Directed by John DAHL. USA: PolyGram Filmed Entertainment.

Right Stuff, The, 1983. Directed by Philip KAUFMAN. USA: The Ladd Company.

Robe, The, 1953. Directed by Henry KOSTER. 1953 USA: Twentieth Century-Fox

Rob Roy, 1994. Directed by Michael CATON-JONES. USA:

Rock All Night, 1957. Directed by Roger CORMAN. USA: Sunset Productions, Incorporated.

Rock, Rock, Rock, 1956. Directed by Will PRICE. USA: Vanguard Productions

Rope, 1948. Directed by Alfred HITCHCOCK. USA: Warner Brothers.

Rules of the Game, The, 1939. Directed by Jean RENOIR. France: Nouvelle edition française

Saint Joan, 1957. Directed by Otto PREMINGER. USA: United Artists

Sait-on Jamais?, 1956. Directed by Roger VADIM. France: Carol Films

Salesman, 1969. Directed by David & Albert MAYSLES. USA: Maysles films.

Saturday Night Live, 1975-. Created by Lorne MICHAELS. USA: NBC Studios.

Sauve Qui Peut- la Vie/Every Man For Himself, 1980. Directed by Jean-Luc GODARD. France: MK2 Productions.

Scaramouche, 1923. Directed by Rex INGRAM. USA: Metro Pictures Incorporated.

Scarlett Street, 1945. Directed by Fritz LANG. USA: Fritz Lang Productions.

Scream, 1996. Directed by Wes CRAVEN. USA: Dimension Films.

Serious Change, 1959. Directed by Terence YOUNG. UK: Eros Films

Se7en, 1993. Directed by David FINCHER. USA: New Line Cinema.

Seven Wonders of the World, 1956. Directed by Tay GARNETT, et al. USA: Cinerama Releasing Corp.

Shadow of a Doubt, 1943. Directed by Alfred HITCHCOCK. USA: Universal Pictures.

Shadows, 1960. Directed by John CASSAVETES. USA: Lion International.

Sherlock Junior, 1924. Directed by Roscoe 'Fatty' Arbuckle & Buster KEATON. USA: Buster Keaton Productions, Inc.

Shining, The, 1980. Directed by Stanley KUBRICK. UK: Hawk Films Limited.

Show of Shows, The, 1930. Directed by John G. ADOLFI. USA: Warner Brothers.

Silence of the Lambs, 1990. Directed by Jonathan DEMME. USA: Orion Pictures Corporation.

Silk Stockings, 1957. Directed by Rouben MAMOULIAN. USA: Metro-Goldwyn-Mayer.

Silly Symphony, 1932. Directed by Walt DISNEY. USA: Disney Studios

Singing Fool, The, 1928. Directed by Lloyd BACON. USA: Warner Brothers.

Solyaris, 1972. Directed by Andrei TARKOVSKY. USSR: Mosfilm.

Song of the Volga Boatman, The, 1926. Directed by Cecil DE MILLE. USA: Warner Brothers.

Sous les Toits de Paris, 1929. Directed by Rene CLAIR. France: Films Sonores Tobis

Spellbound, 1945. Directed by Alfred HITCHCOCK USA: Selznick International Pictures.

Stalker, 1979. Directed by Andrei TARKOVSKY. USSR: Mosfilm.

Star is Born, A, 1937. Directed by William WELLMAN. USA: David O. Selznick Productions.

Star Wars IV, 1977. Directed by George LUCAS. USA: Lucasfilm, Ltd.

Star Wars V, 1980. Directed by Irvin KERSHNER. USA: Lucasfilm Ltd.

Star Wars VI: Return of the Jedi, 1983. Directed by Richard MARQUAND. USA: Lucasfilm Ltd.

St. Louis Blues, 1929. Directed by Dudley MURPHY. USA: RKO Radio Pictures

Steamboat Willie, 1928. Directed by Walt DISNEY. USA: Disney Studios

Stella Maris, 1918. Directed by Marshall NEILAN. USA: Picford Film Corporation.

Streetcar Named Desire, A, 1951. Directed by Elia KAZAN. USA: Warner Bros

Street of Crocodiles, 1986. Directed by Stephen and Timothy QUAY. UK: Atelier Koninck.

Sullivan's Travels, 1941. Directed by Preston STURGES. USA: Paramount Pictures.

Sunny Side Up, 1929. Directed by David BUTLER. USA: Fox Film Corporation.

Sunrise, 1927. Directed by F. W. MURNAU. USA: Fox Film Corporation.

Sunset Boulevard, 1950. Directed by Billy WILDER. USA: Paramount Pictures.

Sweet Dreams, 1985. Directed by Karel REISZ. USA: Home Box Office.

Sweet Smell of Success, 1957. Directed by Alexander MACKENDRICK. USA: Hill-Hecht-Lancaster Productions.

Talented Mr Ripley, The, 1999. Directed by Anthony MINGHELLA. USA: Miramax Films.

Tengoku to Jigoku/High and Low, 1963. Directed by Akira KUROSAWA. Japan: Toho Company Limited.

Terminator 2: Judgment Day, 1991. Directed by James CAMERON. USA: Carolco Pictures Incorporated.

Terror, The, 1928. Directed by Roy DEL RUTH. USA: Warner Brothers.

Tess of the D'Ubervilles, 1924. Directed by Marshall NEILAN. USA: Metro-Goldwyn-Mayer.

Third Man, The, 1949. Directed by Carol REED. UK: British Lion Film Corp

This is Cinerama, 1950. Directed by Merian COOPER, et al. USA: Cinerama Releasing Corp.

Three Men and a Baby, 1987. Directed by Leonard NIMOY. USA: Touchstone Pictures.

THX 1138, 1970. Directed by George LUCAS. USA: Zoetrope Studios.

Time Code, 2000. Directed by Michael FIGGIS. USA: Red Mullet Productions.

Tirez sur le Pianiste/Shoot the Pianist, 1960. Directed by François TRUFFAUT. France: Films de Pléïade.

Too Late Blues, 1961. Directed by John CASSAVETES. USA: Paramount Pictures.

Torn Curtain, 1966. Directed by Alfred HITCHCOCK. USA: Universal Pictures.

Touch of Evil, 1958. Directed by Orson WELLES USA: Universal pictures.

Twentieth Century, 1934. Directed by Howard HAWKS. USA: Columbia Pictures Corporation.

Twenty Thousand Leagues Under the Sea, 1954. Directed by Richard FLEISCHER. USA: Disney Studios.

U-571, 2000. Directed by Jonathan MOSTOW. USA: Universal Pictures.

Ultimo tango a Parigi/Last Tango in Paris, 1972. Directed by Bernardo BERTOLUCCI. Italy/France:Les Productions Artistes Associés.

Under Capricorn, 1949. Directed by Alfred HITCHCOCK. USA: Warner Brothers.

Viva Zapata!, 1952. Directed by Elia KAZAN. USA: Twentieth Century-Fox.

Vivement Dimanche/Finally Sunday, 1983. Directed by François TRUFFAUT France: Films A2.

Wagon Master, The, 1928. Directed by Henry J. BROWN. USA: Universal Pictures.

Warming Up, 1927. Directed by Fred C. NEWMAYER. USA: Paramount Pictures.

Weekend, 1967. Directed by Jean-Luc GODARD. France: Lira Films.

Welcome Danger, 1929. Directed by Harold LLOYD. USA: Paramount Pictures.

What Price Glory?, 1927. Directed by Raoul WALSH. USA: Fox Film Corporation.

What's Up Doc? 1972. Directed by Peter BOGDANOVICH. USA: Saticoy Productions.

When a Man Loves, 1927. Directed by Alan CROSLAND. USA: Warner Brothers.

When a Stranger Calls, 1979. Directed by Fred WALTON. USA: Columbia Pictures Corporation.

White Christmas, 1954. Directed by Michael CURTIZ. USA: Paramount Pictures.

Wild at Heart, 1990. Directed by David LYNCH. USA: Polygram Filmed Entertainment.

Will Success Spoil Rock Hunter?, 1957. Directed by Frank TASHLIN. USA: Twentieth Century-Fox.

Wings, 1927. Directed by William WELLMAN. USA: Paramount Pictures.

Wizard of Oz, The, 1939. Directed by Victor FLEMING. USA: Metro-Goldwyn-Mayer.

Wrong Man, The, 1956. Directed by Alfred HITCHCOCK. USA: Warner Brothers.

Wuthering Heights, 1939. Directed by William WYLER. USA: Samuel Goldwyn Company.

Yeux sans Visage, Les/Eyes without a Face, 1959. Directed by Georges FRANJU. France: Champs-Élysées Productions.

Yojimbo/The Bodyguard, 1961. Directed by Akira KUROSAWA. Japan: Toho Company Limited.

Y Tu mamá También, 2001. Directed by Alfonso CUARÓN. Mexico: Anheló Producciones.

Zerkalo/Mirror, 1974. Directed by Andrei TARKOVSKY. USSR: Mosfilm.