The *Gulf War Aesthetic*? Certain Tendencies in Image, Sound and the Construction of Space in *Green Zone* and *The Hurt Locker*

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Abstract

This thesis argues that the perception of realism and 'truth' within narrative feature films set within the Gulf War (1990-1991) and Iraq War (2003-2011) is bound up in other transmedia representations of these conflicts. I identify and define what I describe as the *Gulf War Aesthetic*, and argue that an understanding of the 'real life' of the war film genre through its telling in news reportage, documentary and combatant-originated footage serves as a gateway through which the genre of fictional feature films representing the conflicts and their aftermath is constructed. I argue that the complexity of the Iraq War, coupled with technological shifts in the acquisition and distribution of video and audio through online video-sharing platforms including YouTube, further advanced the *Gulf War Aesthetic*. I identify *The Hurt Locker* (Bigelow, 2009) and *Green Zone* (Greengrass, 2010) as helpful case studies to evidence these changes, and subject both to detailed analysis.

I draw an alignment of the creative practice of film practitioners involved in the case studies with a detailed, intrasoundtrack analysis of the scenes they discuss. In *The Hurt Locker*, I demonstrate that this presents itself in an unusual *unification* of film sound with image, where sound recording and design, in addition to the deployment of music, operate to communicate the components of a narrative specific to the story of bomb disposal. I contrast this with *Green Zone*, where I argue that the *Gulf War Aesthetic* is limited by the deployment of more conventional characteristics of the war film genre. This analysis reveals that transmedia contexts of production are operating and how new aesthetics are being reified and codified in cinema. I evaluate the subsequent impact of this outside the specific genre of the war film, particularly in terms of a shift in the way in which spectacle is presented.

List of Contents

Abstract		2
List of Contents		3
List of Illustrations		
Acknowledgements		
Introduction	Sound Design in the Post-digital Landscape: Investigating the Intrasoundtrack	8
	Technological Shifts and the Transmedia War Genre	14
	Hollywood's Response to the Gulf War and the Emergence of the <i>Gulf War Aesthetic</i>	19
	Representing 21 st Century Wars in Fiction	27
	A Brief History of Film Sound and Sound Theory	30
	Methodology: Analysing Sound in Film	39
	Case Studies	56
	Summary of Structure	60
Chapter One	Sound and Spectacle in Representations of Conflict: The Development of the <i>Gulf War Aesthetic</i>	64
	The Purpose of the War Film	67
	The Emergence of the Embedded Reporter	70
	The Gulf War (1990-1991)	76
	Cinema, Iconography and Myth	82
	Fictionalising the Reality of the Gulf War	85
	The Iraq War (2003-2011)	92
	Space and Place	102
	Conclusions	105

Chapter Two	Imperial Life in the Emerald City: <i>Green Zone</i> as Production Study	108
	Methodology	120
	"Authenticity was the Mandate"	123
	Where the Factual Voice Meets Dramatisation	131
	The Unnarratability of the Iraq War	136
	Inside Green Zone: An Intrasoundtrack Analysis	139
	Intrasoundtrack Analysis 1: Search for WMD	148
	Intrasoundtrack Analysis 2: Bad Intel	162
	Conclusions	166
Chapter Three	The Man in The Bomb Suit: <i>The Hurt Locker</i> as Production Study	170
	Methodology	173
	Kathryn Bigelow: Sonic Transgressor	175
	Striving for Authenticity	178
	The Spectacle of Authenticity	186
	Completing the Image with Sound	194
	Intrasoundtrack Analysis 3: A Beautiful Neighbourhood	198
	Intrasoundtrack Analysis 4: No Place for a Picnic	216
	Conclusions	240
Conclusion		243
Definitions		253
Glossary of Terms		253
Bibliography		257
Appendix One	Example Interview: Paul Greengrass	290
Appendix Two	Example Participant Release Form	295
Appendix Three	Example Diagram of an Intrasoundtrack Analysis	298

List of Illustrations

Figure 1	Graphical representation of Intrasoundtrack analysis (McGill, 2008: 150)	43
Figure 2	Graphical representation of Intrasoundtrack analysis (Marshall, 2016)	45
Figure 3	Soldier's own digital camera (Green Zone, 17:08)	117
Figure 4	The recording of enhanced interrogation techniques (<i>Green Zone</i> , 48:35)	118
Figure 5	CCTV recording of enhanced interrogation techniques (<i>Green Zone</i> , 49:04)	118
Figure 6	Mirroring reality, press conference (<i>Green Zone</i> , 76:29)	127
Figure 7	Green Zone (2:27) (left), CNN, 19 March 2003 (right)	147
Figure 8	Extreme close-up (ECU) of intel report (<i>Green Zone</i> , 4:27)	149
Figure 9	Green Zone, Intrasoundtrack Analysis 1 (2:46-3:40)	151
Figure 10	Wounded US soldier, from Miller's point of view (<i>Green Zone</i> , 3:44)	154
Figure 11	Medium close-up (MCU) with Asira to left of frame, Miller centred (<i>Green Zone</i> , 3:58)	155
Figure 12	Medium close-up (MCU) with Miller in centre of frame (<i>Green Zone</i> , 4:27)	159
Figure 13	Green Zone, Intrasoundtrack Analysis (3:40-5:40)	159
Figure 14	Medium close-up (MCU) with Miller in centre of frame (<i>Green Zone</i> , 5:20)	160
Figure 15	Green Zone, Intrasoundtrack Analysis (7:04-9:14)	166
Figure 16	<i>The Hurt Locker</i> , Intrasoundtrack Analysis (0:00-2:16)	200
Figure 17	<i>The Hurt Locker</i> , Intrasoundtrack Analysis (2:45-4:45)	208
Figure 18	Extreme long shot (ELS) showing Thompson's isolation within the frame (<i>The Hurt Locker</i> , 6:25)	212
		Pag

Figure 19	Long shot (LS) of Thompson, trailer and IED (<i>The Hurt Locker</i> , 6:54)	213
Figure 20	Extreme long shot (ELS) of Thompson and IED (<i>The Hurt Locker</i> , 7:02)	213
Figure 21	Extreme long shot (ELS) of Eldridge and Sanborn (<i>The Hurt Locker</i> , 7:25)	213
Figure 22	Close-up (CU) of Eldridge (The Hurt Locker, 7:27)	213
Figure 23	Close-up (CU) of Contractor Team Leader, together With James and Eldridge (<i>The Hurt Locker</i> , 51:25)	219
Figure 24	Extreme close-up (ECU) of Contractor (<i>The Hurt Locker</i> , 51:28)	219
Figure 25	<i>The Hurt Locker</i> , Intrasoundtrack Analysis (50:43-55:43)	223
Figure 26	Contractor Chris exposed in the Humvee turret (<i>The Hurt Locker</i> , 53:39)	224
Figure 27	<i>The Hurt Locker</i> , Intrasoundtrack Analysis (58:43-63:53)	231
Figure 28	An enemy combatant takes aim from the viaduct (<i>The Hurt Locker</i> , 64:11)	234

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Introduction Sound Design in the Post-digital Landscape: Investigating the Intrasoundtrack

For what is not within the film frame cannot be seen by us, even if it is immediately beside the things that are. Light or shadow can be thrown into the picture from outside and the outline of a shadow can betray to the spectator what is outside the frame but still in the same sector of space, although the picture will show only a shadow. In sound things are different. An acoustic environment inevitably encroaches on the close-up shot and what we hear in this case is not a shadow or a beam of light, but the sounds themselves, which can always be heard throughout the whole space of the picture, however small a section of that space is included in the close-up. Sounds cannot be blocked out. (Balázs, 1970: 211)

As Béla Balázs argues, unlike the visual component of cinema, a film's sound design is unencumbered by the frame and the pace of visual editing, with the power to underline or undermine narrative, place, space and character. This thesis examines the production culture of two case studies – the independently financed feature film *The Hurt Locker* (Bigelow, 2009) and the studio-financed *Green Zone* (Greengrass, 2010). Both are war films where the narrative is centred on the operation of small, specialist US military units operating in Iraq following the invasion of the country in 2003 by a US-led military coalition, the Multi-National Force-Iraq (MNF-I).

The Hurt Locker focuses on the work of an Explosive Ordnance Disposal (EOD) team, or bomb squad. *Green Zone* follows the search for weapons of mass destruction (WMD) by a Mobile Exploitation Team (MET), US army units who were tasked to secure these weapons following the invasion. The films share narratives drawn from reportage related to the activity that followed the invasion of Iraq. In addition, the films share similar locations, characters and some shared characteristics of a visual and sonic style that I will define in this thesis as the *Gulf War Aesthetic*. I make this use of the term *aesthetic* in this context, to identify particular characteristics and tendencies in the manner with which the Gulf War

has been represented on screen – initially in television news broadcasts, and later in documentary, narrative feature film, video games and in footage distributed by participants through social media. I argue that shifts in military policy and developments in military technology and imaging together with developments in news gathering and dissemination, impacted the manner with which television news presented the spaces and events of the Gulf War both visually and sonically at the time. Though originating in the events of the Gulf War itself and its televisual representation, I argue that the tendencies evident within the Gulf War Aesthetic have impacted subsequent representations of conflict in terms of a sense of liveness in the narrative, in addition to shared characteristics, or aesthetic fields, in cinematography, image composition, sound design and the construction of space. I argue that the *Gulf War Aesthetic* became more sophisticated during the War in Afghanistan and Iraq War, in part through further developments in, and the wider dissemination of, image and sound capture technologies, war fighting technologies and the emergence of social media networks as global distribution platforms, I also argue that the impact of this advanced Gulf War Aesthetic can also be seen and heard in representations of historical conflict produced following the invasion of Iraq in 1991.

This military technology created new forms of cinematography and point of view, presented through cameras situated in gunnery turrets and missile nose cones. Low light and infrared cameras allowed a direct presentation of the view of the combatant, who was able to film in any weather or light conditions, including night operations. Sound, too, was distinct and similarly fragmented in terms of quality and clarity, with audio captured by satellite phones, lightweight consumer cameras and sports cameras attached to helmets or vehicles, and what Michel Chion describes as "on-the-air" sound (1994: 76); audio transmitted electronically through cockpit recorders, radios and satellite military communications technologies. These new technologies all form characteristics of the *Gulf War Aesthetic*.

The sociocultural position of this cycle of films have been subject to considerable scrutiny. Alex Vernon argues that The Hurt Locker's presentation of the Irag War doggedly avoided "the war's controversial political history" in favour of presenting a "microcosmic narrative" of "spectacular immediacy" that he suggests allows the film to avoid offering a commentary of the wider context of the conflict, ongoing at the time of the film's release (2017: 374-375). Frank Gadinger contests this position that criticisms of Iraq War film's depoliticisation can be countered by reading narratives that present the professionalisation of war fighting and normalisation of everyday violence as a critique of the legitimisation of the war on terror following 9/11 – an analysis that can be applied to both The Hurt Locker and Green Zone (2016: 72). What is clear, as Yvonne Tasker and Eylem Atakav argue, is the manner with which these films channel the lack of clarity associated with the Iraq War conflict (2010: 68). This thesis will not determine the position of the case study films or their filmmakers in relation to the sociocultural or sociopolitical contexts of the wars themselves, but focus instead on the how the representation of these conflicts visually and sonically was impacted by changes in military, image making and distribution technologies, and how these technological changes facilitated shifts in representing conflict in cinema. By focusing on the production culture of each film, examining approaches to sound and image made by specific role holders and coupling with close textual analysis of selected sequences, I will demonstrate how the origins of the source material for each film and the

development of each production was determined in part by their interpretation and execution of the *Gulf War Aesthetic*.

The case study films demonstrate a stark contrast in the manner with which they articulate space, place and subjectivity in their production sound recording and the post-production design of the soundtrack. *Green Zone* has been chosen as a case study as the film shares many of the same crew and *The Hurt Locker*'s visual aesthetic but, as I will argue in this thesis, its use of sound inhibits it from fully realising the potential of what I term the *Gulf War Aesthetic*. Despite its later production date, *Green Zone* makes use of the more traditional conventions of the action thriller or war film genres in its use of music and sound design. In contrast, *The Hurt Locker*, through making innovative use of the power of sound design to articulate space and subjectivity, advances and develops what I define as the *Gulf War Aesthetic*. I argue that *The Hurt Locker* signifies a development in the manner with which feature filmmakers represent the Iraq War from the films that preceded it.

Douglas A. Cunningham describes *The Hurt Locker* as sharing the narrative fragmentation of *Apocalypse Now* (Coppola, 1979) and argues that such films are ambivalent about their specific conflict setting and instead ask larger questions about "the necessarily shattered nature of individual wartime experience" (2010: 3-4, 10) Similarly, this thesis focuses not on the sociopolitical context of the films, but the specifics of each film's culture of production in order to investigate how the pragmatic choices made both prior to and during the production of *The Hurt Locker* create an unusual, intimate sense of individual subjectivity within the film. I argue that this this shift is evident in and facilitated by the manner with which the

film's music, sound design and mixing is unified with the visual and narrative components which characterise the *Gulf War Aesthetic*.

By focusing on the study of film sound in the context of the war genre and the technological aspects of production rather than an analysis of character and narrative, we can begin to better understand the techniques of communicating space and subjectivity in cinema and what power sound has over the image. More importantly, we can determine what is at stake when sound is entirely unified with the image rather than being used as a tool to assist in continuity or signposting an audience's emotional response. In this thesis, I evaluate where the practice of cinema sound has changed historically, how workflow processes have been enabled by the digitisation of recording, editing and mixing technologies, and how the manner with which spatiality and representations of character subjectivity in the Iraq War film are portrayed through sound offer a prism through which these changes can be understood.

By examining representations of how these conflicts have been presented across transmedia platforms – news reporting, documentary and combatant-originated footage in addition to fictional forms such as video games – I reveal how and where sound and image are unified in the case study films. I argue that in *Green Zone,* this is impeded by the film's adherence to genre conventions, and identify how *The Hurt Locker* achieves a more complete unification through the development of techniques which serve to advance the *Gulf War Aesthetic*. My use of the term transmedia, in this context, is to articulate how the narrative properties of the Gulf War (1990-1991) and Iraq War (2003-2011) have made meaning across a range of media platforms and genres. I will consider how and

where these aesthetic properties have been responded to by practitioners who are drawing from multiple forms and communities, including news, documentary and narrative film (Tryon, 2011; Doyd, Niederman, Fry and Steiff, 2013; Kalogeras, 2014).

Through textual analysis, I will demonstrate how the representation of conflict shifted during the Gulf War, in large part enabled by new military technologies and global, live networks of news distribution. I will demonstrate how the *Gulf War Aesthetic* developed through a number of cycles of representation, and became increasingly sophisticated as the War and Afghanistan and Iraq War were prosecuted, connecting these developments to the complexities of 21st Century asymmetrical warfare, image and sound capture technologies and emergent global distribution networks such as YouTube. Central to this thesis is the idea that the case study films demonstrate the importance of how the conventions of a genre forged in transmedia settings – in both the real and the represented – have impacted upon the fictionalised representation of combat.

This thesis argues that the perception of realism and 'truth' within narrative feature films representing the Gulf War and Iraq War is bound up in other transmedia tellings of similar situations. I argue that an understanding of the 'real life' of the war genre through its telling in news reportage and documentary serves as a gateway through which the genre of fictional feature films representing the conflict and its aftermath is constructed. The catalyst for this shift comes from the types of stories being told in particular films and the manner with which changing production processes have allowed their telling. Specifically, these processes have been accelerated by the digitisation of sound and image workflow that began in the 2000s and a *post-digital* landscape of appropriation and distribution. The term 'post-digital' makes use of, that technological change has allowed for the convergence of transmedia modes of storytelling where reality and fiction have fused, typified by constructed reality television, news reportage and documentary drama (in Jenkins, 2008). Florian Cramer extends the definition of this post-digital convergence in a manner helpful to this thesis, arguing that it describes "the state of affairs after the initial upheaval caused by the computerisation and global digital networking of communication, technical infrastructures, markets and geopolitics" (2014). Cramer argues that the term is drawn from creative practice, which he suggests no longer distinguishes between old and new media, but relies on the reuse and reappropriation of aesthetics and networks which focus on the experiential rather than the conceptual, and on do-it-yourself as much as corporate cultural production. I will investigate how this convergence of aesthetic, distribution technologies and new modes of making have resulted in an aesthetic of sound and visuals that is common to both factual and fictional media production, an aesthetic exemplified most effectively by The Hurt Locker.

Technological Shifts and the Transmedia War Genre

With reference to Gianluca Sergi's identification of the 1970s as a period of paradigm shift in sound technologies, William Whittington identifies science fiction as the film genre that saw the greatest impact of these technologies at that time (2007). He argues that the development of new recording techniques and exhibition technologies magnified the impact of sound, which became increasingly significant in the immersive, spectacular storytelling techniques of *Star Wars* (Lucas, 1977). They served to challenge the primacy of the image at the end of the decade with *Alien* (Scott, 1979) and became increasingly impactful into the next

decade with the complex unification of music and sound design deployed in *Blade Runner* (Scott, 1982) and *The Terminator* franchise (1984-). As science fiction served as a testing ground for shifts in the complexity and narrative opportunities for sound design in 1970s cinema, I argue that the war film genre affected a further development in the use of sound design in the 1990s and 2000s, following the Gulf War of 1990-1991.

Guy Westwell argues that the generic elements of the war film offer a space to consider "a series of cycles responding opportunistically to historical and cultural change in a fierce, fast moving capitalist environment" (2006: 9). In the Gulf War, this is evident in the widely reported deployment of previously unseen technologies - cruise, Scud and Patriot guided missile systems, stealth aircraft and Precision-Guided Munitions (PGM). In addition, these developments in the military technologies of war created entirely new means of recording, reproducing and hearing the sounds of war. For the first time, news audiences viewed bomb strikes from the nose cone of guided munitions and were able to see and hear cruise missiles passing the windows of the hotels which housed western journalists as events occurred, in addition to hearing the impact of the weapons as they struck their targets. As Major William G. Adamson observes, the convergence of the deployment of such munitions and the development of satellite, real-time news coverage allowed the media for the first time to broadcast combat in real time, allowed the Coalition forces to highlight their dominant "air power on television" in real time (1997: 3) and, significantly for this thesis, also brought together the sound and imagery of war to wider audiences in real time. These broadcasts, as I explore in more detail in Chapter One, made use of visual language more common to high-concept action cinema. The news media

transmitted gunnery camera images provided to them from the Coalition forces and embedded reporters broadcast in cinematic settings as jets took off at sunrise from air bases in Kuwait and Saudi Arabia and from US Navy aircraft carriers stationed in the Persian Gulf.

Restrictions on reportage, developed by the UK and USA military in the conflicts which followed World War Two (1939-1945), combined with the emergence of lightweight broadcast technology, created a visual and audio aesthetic in the films representing the Gulf War that further developed an aesthetic of combat presented within previous conflicts. Since World War Two, news organisations had increasingly prioritised the importance of reporting quickly from conflict zones, with some television reportage shifting to being broadcast in real time during the Gulf War. Newly available technologies, coupled with the changing institutional relationships between news organisations and the US and European armed forces that began with the Falklands Conflict, as I demonstrate in Chapter One, have had a dramatic effect on the visual and sonic aesthetics of war reporting. These changes in the news media subsequently altered the manner with which other forms of media, including documentary, video games and narrative feature films, have articulated war visually and sonically from the Gulf War onwards.

In the context of this thesis, the shift to real time television reporting, coupled with the practice of embedding reporters with troops from the first Gulf War onwards is crucial to the understanding of the *Gulf War Aesthetic* and the narrative feature films born of that conflict. Embedded reportage in the Gulf War generated news coverage that focused on specific military units, the experience of the individuals within these units and the reporter's own personal experience within the units. In addition to an impact on narrative, where the reportage shifted from an objective to a limited and subjective position, an aesthetic shift occurred in terms of both cinematography and sound. Although this shift was evident in previous conflicts such as Vietnam; in the Gulf War these impacts were furthered by advances in broadcasting technology. With so few embedded places available, reporters began shooting their own footage and recording their audio using light hand-held equipment, and returning this footage live via satellite. This significantly changed the look and feel of the material being broadcast, in addition to effectively restricting the narrative being communicated. In the newsroom, studio anchors would compare and contrast these reports on the ground with information provided by the Coalition military forces.

Deborah Jaramillo states that "the power of news programming lies in its ability to construct very specific ways of seeing and hearing the world in conflict" (2009: 2). She argues that sound was imperative in drawing audiences to the television during news coverage of the Gulf War – whether through the theme music which accompanied title sequences, the sonic spot effects used during transitions, or the diegetic sound that accompanied the reports themselves. The inclusion of iconic sounds, such as the air raid sirens of Kuwait City or Riyadh, the boom of Iraqi anti-aircraft fire and launch of Coalition jets and cruise missiles, in addition to the subsequent explosions of those missiles, became critical to how the war was articulated by reporters. Jaramillo argues that "diegetic sounds in television news are the keys to journalistic fidelity" (2009: 158), and in both amateur footage and mainstream news organisations' coverage of the Gulf War and subsequent Iraq War, this articulation of fidelity through sound has given rise to a construction of spatiality and articulation of danger.

Significantly, within the context of this thesis, many of these emergent modes of mediation have privileged sound as a means of communicating danger, a sense of realism and a closeness to conflict. In the decade that separated the Gulf War and the invasion and subsequent insurgency in the Iraq War, which began in 2003, the overlap of technologies in news reportage caused representations of conflict to change from a distant, observational aesthetic to one which privileged the personal or subjective experience of the protagonist. In a genre where construction of space and danger are critical in order to encourage a sense of verisimilitude for the audience, the articulation of these themes became increasingly significant in the aesthetic of the Iraq War, where unseen attackers and roadside explosives replaced the desert tank battles that defined the earlier Gulf War.

My intervention into studies of film sound and its part in communicating realist aesthetics or realism in cinema is to demonstrate that the greatest recent impact on the contemporary war film – those covering the first Gulf War and the later invasion, occupation and insurgency in Iraq – has been the manner with which the visual and aural codes of news reportage have been emulated in feature filmmaking in order to manufacture an intimate sense of individual subjectivity and verisimilitude. What I have defined as the *Gulf War Aesthetic* reflects the changing nature of the news coverage of conflict, particularly the drive to report quickly and with a sense of authenticity about conflict in real time, and its effect on how other forms of media articulate war both visually and sonically, in news media, documentary, narrative cinema and video games. The *Gulf War Aesthetic* is defined in part by the visual and aural codes of news reportage, particularly within the 24-hour rolling news cycles that contained footage from the Gulf War and Iraq War, which redefined the coverage of conflict through the privileging of immediacy, in addition to more established themes of personal subjectivity and by articulating a sense of being close to the action. The development of what I define as the *Gulf War Aesthetic* in television, documentary and narrative feature film through the prosecution of the Iraq War has been further accelerated by the fictional representation of these conflicts in new and emerging media where spatiality is often a critical component. This includes a number of video games that use the Gulf War or Iraq War as their setting, and present their characters from a first-person sonic and visual position.

Hollywood's Response to the Gulf War and the Emergence of the *Gulf War* Aesthetic

Steve Neale determines the war film as a major genre distinguishable from other action films "where scenes of combat are a requisite ingredient and these scenes are dramatically central", although he acknowledges that scholarship has challenged this uncontentious labelling through the further distinguishing of films within the genre in scholarship (2000: 125). Neale identifies a number of distinct phases or variants of the war genre, citing Jeanine Basinger's observation that coherence within the genre is complicated because "Different wars inspire different genres" (1986: 10). Neale distinguishes the combat film from those with a distinctly anti-war position, and distinguishes these again from dramas focused on the homecoming of troops from combat zones. The emergence and development of digital technologies, which had allowed for a furthering of cinema's power to effectively communicate this subjective experience to audiences, had already radically altered the sound of the war film genre prior to the outbreak of the Iraq

War. Following the release of *Saving Private Ryan* (Spielberg, 1996), which made particular use of sound design that was subjective to the protagonists and assisted in the articulation of space, the construction of verisimilitude in the war film genre has been achieved increasingly by innovations in sound design, in addition to existing visual techniques.

John Hodgkins argues that *Saving Private Ryan* presents a paradigm shift in the war genre and is particularly significant in that it is one of a number of films, in which he also includes *A Midnight Clear* (Gordon, 1992) and *The Thin Red Line* (Malick, 1998), which adopt the "thematic guise" (2002: 84) of World War Two but are in fact driven by the discourse which followed the 1991 Gulf War in the manner with which they "explore the technology, psychology, morality, and nature of warfare itself" (2002: 76). As I identify in Chapter One, the representations of individuals' experiences of war are central to this shift, in that they facilitate the communication of a different kind of subjectivity to the more 'traditional' war film, because they are focused on the internal psychological experience of the soldier.

As Julian Allen identifies, sound designer Gary Rydstrom's use of surround sound effects to capture the bullets whizzing past the heads of Tom Hanks' men in the opening sequence of *Saving Private Ryan* makes spectacular use of sound which privileges the primacy of the audience's experience of the bullet (2010). In this sequence, which portrays the landings of US forces on Omaha Beach as part of the Allied forces amphibious invasion of Normandy, the sound mix responds to each of the protagonists and is distinct to their individual experience in the narrative. Rydstrom's sound mix articulates different spaces occupied by the men as they come under fire, and includes a wide variety of sounds within the landing

craft and as the doors open, where incoming gunfire is foregrounded as the US soldiers disembark.

As the men enter the water and their heads dip under the waves, sound and image are unified and reflect the subjective position of the soldiers. In this sequence, the trajectory of the gunfire is shown *visually* through the trail of bullets through the water and heard *sonically* through a muffling of the frequencies of the soundtrack – with the sonic point of audition matching the camera's point of view under the waves. In an equally striking moment within the sequence, a character is momentarily deafened as a shell explodes nearby. The high frequencies of incoming gunfire and ricochets are softened in the roar of the battle, with the effect of again accentuating the experiential, subjective position of the soldier and the visceral atmosphere of the scene as a whole. As the other frequencies return, a variety of ricochet sound effects assist in articulating the geography of the space the men are navigating as they make their way up the beach itself – bringing to life the differing forms of cover shown in the visuals.

A cutaway to a German machine gun post above the beach shows the origin of the gunfire as the enemy soldiers shoot from within the relative safety of their fortified defences. Again, this space has a distinct sound subjective to the German soldiers' position, most striking of which is the lack of the sound of incoming fire in contrast to the experience of the Allied soldiers on the beach. The interior of the bunker has a very different sonic characteristic, with the timbre of the German machine gun measured by steady bursts of fire and accompanied by the crisp sound of ejected shell casings falling to the floor again in contrast to the more chaotic sonic experience of the men on the beach.

Chikako Nagayama states that "film space is not a simple reflection of socially produced space" and identifies three aspects of cinematic spatiality: "phenomenology of film space, spatial metaphors, and gaze-landscape interconnection" (2009: 48). In Saving Private Ryan, the ability of the audience to position its characters geographically within the film space is complicated by cinematography that makes use of multiple hand-held cameras to track a large number of characters. This aesthetic assists in articulating the chaotic experience of those involved in the beach landings, but is reliant on sound design to fill the gaps in what is shown – providing the framework for spatial metaphors and connecting the point of view of the Allied soldiers and the environments they occupy, in addition to their relationship with the enemy positions. Allen argues that the success of Saving Private Ryan - in terms of its \$481m box office and five Academy Award wins from 11 nominations – subsequently encouraged filmmakers operating within the war genre to construct verisimilitude increasingly by sound design, supplementing well-established visual techniques of subjectivity such as the use of point of view (2010).

The environments of the films representing the conflicts in Iraq are typified by similarly complex spaces – bustling, untidy cityscapes and desert exteriors that contain few distinct geographical markers to give a sense of a character's relationship with their environment, of distances and danger. As in *Saving Private Ryan*, they offer little visual information for the audience to understand the geography of these places and, as such, filmmakers become reliant on the soundtrack to articulate space and for sound design to 'complete' the image. This has created a unique opportunity for filmmakers, and specifically the sound

department, to respond by filling in the details lost in the dynamic visual representation of these environments.

Hollywood responded to the Gulf War by drawing upon and further developing the *Gulf War Aesthetic* recognisable to audiences from television news reporting and documentary. This evolved from the first cycle of fictional representations of the Gulf War, such as *Courage Under Fire* (Zwick, 1996), *Three Kings* (Russell, 1999) and *Bravo Two Zero* (Clegg, 1999). These films make use of restricted narratives, told from the point of view of their characters. In a second cycle of films that still used the Gulf War within their narrative, but were released as the later Iraq War was taking place, the technique developed with an increased sense of visual and sonic subjectivity of the characters. This mirrors *Saving Private Ryan*'s deployment of cinematic effects which were born in the crucible of a conflict that occurred later than the one depicted in the film.

As an example from this second cycle of Gulf War films, *Jarhead* (Mendes, 2005) echoes the aesthetic and narrative techniques characteristic of both the news media and documentaries including *Gunner Palace* (Tucker, 2004) and *Stop Loss* (Peirce, 2008), and of video game franchises which made use of a first-person narrative, such as *Call of Duty* (Activision, 2003-) and *Battlefield* (EA, 2002-). Based on the memoir of the same name by US Marine Corps sniper Anthony Swofford (2004), *Jarhead* is structured around a series of episodes that take place during the build-up to the Gulf War. The story is told entirely from the point of view of a US sniper, but offers little context for his experiences, instead presenting the visceral experience of the character. Geoffrey A. Wright describes this technique as one which provides a "ground-level perspective" (2009: 1678), where the desert

environment itself is as much an enemy as the Iraqi military. This trope is shared with many of the films that used the Vietnam War as their setting, including *The Deer Hunter* (Cimino, 1978), *Apocalypse Now* and *Platoon* (Stone, 1986), and share a further commonality in the manner with which many of the films in this second cycle of Gulf War cinema revisit the conflict from an anti-war position. This theme – where the protagonist's subjective experience of conflict is central to the formation of an anti-war perspective within the film's narrative - continues in cinema that makes use of the Iraq War for its setting, as I detail in Chapters Two and Three.

This thesis identifies how it is the unification of the relationship between sound and image that helps construct a sense of authenticity in the case study films, *Green Zone* and *The Hurt Locker*. Furthermore, it is the symbiotic manner with which sound serves to complete the image that produces an identifiable *Gulf War Aesthetic* that emerged in war films following the first Gulf War and became more advanced in the period following that conflict and during the later Iraq War. To advance this argument, I make use of Stephen Prince's study of perceptual realism, where he identifies how a film "structurally corresponds to the viewer's audio-visual experience of three-dimensional space" and to the visual and social experience of the viewer (1996: 32-33). I also identify the significance of the manner with which these films deploy what Elizabeth Cowie has described as "documentary sound" (2009, 2011), where the aesthetic of fictional film borrows from and embellishes the techniques of its factual counterparts in documentary and reality television.

In this mode of sound design, I argue that the spectator is centred as subject

where the audience is allowed "to 'dwell with' the space of a contingent real time of others' lives as they act and react to the people and events around them" (Cowie, 2011: 99). Cowie states that the "believability of the documentary world – its verisimilitude – is produced when it is recognizably familiar, thus it is in some sense the same as the world we already know" (2011: 96). Both *The Hurt Locker* and *Green Zone* borrow techniques from news reportage and documentary filmmaking in their use of close framing, hand-held cameras and limited additional light sources in their cinematography. In addition, as Jeffrey Ruoff notes, a characteristic of documentary filmmaking is for ambient sounds to compete with dialogue, and the deployment of directional microphones in order to foreground or isolate the desired sound in the environment (1993: 27-28). In both case study films, the sound design appears to be captured contemporaneously to the shoot, underpinning the verisimilitude of their narratives.

The Gulf War significantly changed sound design in cinema, which served to mirror the effect of digitisation on news media and dissemination of visual and sonic coverage of the conflicts in its own attempts at verisimilitude. As news media changed, so the impact of the *Gulf War Aesthetic* can be seen in the look and sound of films representing the conflict and the production culture within those films – including roles within the crew. I argue that this has had a wider impact on action cinema more broadly in a storytelling solution where the narrative is centred upon mirroring the manner with which an audience typically navigates through news reports from the perspective of an embedded reporter.

The complexity of the Iraq War has been described as being very different to the wars that preceded it and framed as an "asymmetrical conflict" in terms of its

politics, use of technology and combat tactics (Freedman and Barnett, 2003). This 'unconventional' warfare was some distance from even the Gulf War, which had featured a number of enemy engagements that continued in a long tradition of recognisably conventional warfare, such as the tank engagement between US and Iragi forces that took place at the Battle of Medina Ridge in February 1991 (Divine, 2000). Mary Kaldor distinguishes what she determines as these "old wars" of the 20th century from the "new wars" of the 21st century, which she argues are characterised by the consequences of globalisation (2012: 8-12). Kaldor makes a striking distinction between the conventions of the Gulf War, where a military coalition fought an enemy with similar weapons and tactics to the War in Afghanistan (2001-2014) and the Iraq War, where she describes a similarly US-led coalition, although this time supported by private security contractors, who fought disparate and often transnational groups of combatants. These combatants, who did not operate as a single identifiable fighting force, made use of the tactics of guerrilla warfare, deploying a mixture of high technology, small arms and improvised explosive devices, and were typically financed through decentralised economies of criminality, taxation and diaspora communities (Kaldor, 2012: 8-12). This lack of a discrete enemy with familiar weapons and tactics presented a challenge for filmmakers where the conflict itself challenged the established conventions of the war film genre. In addition, this aesthetic of the Iraq War again distinct from the wars that preceded it, and rapidly changing through technological changes reflected in news reportage, documentary and emergent transmedia properties such as video games – demanded a development from that of the Gulf War if fictional properties were to retain a fidelity and verisimilitude to other transmedia representations of the war.

Representing 21st Century Wars in Fiction

The Iraq War was initially similar to the Gulf War in terms of the media's representation of its aesthetic and narrative representation. However, the campaign coincided with the development of new modes of online journalism over its much longer, eight-year duration. In this thesis, I argue that it was the distribution of conflict footage through Web-based platforms that served as the catalyst for changes in the manner in which this war was represented on screen. The deployment of embedded journalists was familiar from the Gulf War, however the emergence of citizen journalism and the distribution of large amounts of amateur footage from combatants and other observers through social media platforms such as Facebook (2004-) and YouTube (2005-) served to blur the aesthetic and narrative conventions that traditionally delineated professional from amateur reportage. As such, Stig A. Norsedt and Rune Ottossen argue that the Iraq War was not only *mediated* by these emergent modes of journalism but also *mediatised*, in the sense that journalism became an agent in the conflict itself in terms of defining what are "publically regarded as legitimate warfare, combatants" and targets" (2015: 152).

This convergence of new image acquisition and distribution technologies with this mediatisation presented a number of opportunities for the further development of the *Gulf War Aesthetic* both inside and outside the mainstream news media, where combatant-originated footage from Coalition and Iraqi forces and footage captured and distributed from civilians on the ground emerged through Internet-based channels such as YouTube. Further footage emerged from dissident fighters involved in the later Iraqi insurgency (2003-2011), which included local militias, al-Qaeda in Iraq, the Mahdi Army and foreign participants, in addition to

private military contractors, such as Blackwater USA (Serena, 2014). Again, much of this material was distributed via Internet media channels but was also reified through its retransmission by broadcasters such as AI Jazeera, the satellite news service which launched in Qatar in 1996. AI Jazeera offered an alternative narrative to US and UK mainstream broadcasters but also made use of a distinct aesthetic that distinguished their output and challenged US cultural hegemony (Zayani, 2005; Seib, 2008). This distinction came through broadcasting more graphic combat footage than US and UK channels and through discussion in talk shows which presented voices sympathetic to the experience of those in Iraq, or the resistance offered by those taking part in the insurgency against Coalition forces.

Marc Lynch describes the period between 1996 and 2002 as "the al-Jazeera [sic] Era" and argues that the station became so powerful that it came to dominate Arab public discourse, prior to the emergence of competing channels in the region (2005: 127). Al Jazeera expanded to offer an English language service from 2003, further broadening its reach beyond the Arabic-speaking public sphere and again extending the range and aesthetics of reporting on the Iraq War. Some scholars and commentators identified an echo of the CNN Effect from 1991, with the Al Jazeera era developing into an "Al Jazeera effect" which impacted on established UK and US news broadcasters through their reflection of the reporting style of the younger station (Miles, 2006; Seib, 2005, 2008).

The development of transmedia storytelling techniques, such as those discussed above, as the Iraq War was prosecuted inform the changing nature of the *Gulf War Aesthetic* from films representing the Gulf War to those with an Iraq War setting. A

secondary driver for the development of the *Gulf War Aesthetic* is the poor reception of many Gulf War and Iraq War films critically and at the box office prior to the success of *The Hurt Locker* at the 82nd Academy Awards. In the cycle of Iraq War films which followed *The Hurt Locker*, effects are often privileged over dialogue in shaping action, and comparatively loud explosions and gunfire imply danger to principal characters while music is deployed sparingly, in contrast to the generic conventions of the war film genre, where action is more commonly accompanied by fast-paced, percussive and militaristic music.

The response of narrative feature filmmakers to the wars in Iraq has been to privilege the subjective experience of their characters and give voice to personal experiences of the war. John Trafton makes a comparison between Apocalypse Now and The Hurt Locker, noting that representations of both Vietnam and the Iraq War "can be seen as a competition of 'war narrators', challenging the mainstream media's account of the war in more viscerally compelling ways" (2012). Through examining case studies whose narrative focus is on characters working in small teams and their relationship to the dangers presented by the spaces and places they occupy, I argue that an advanced form of the Gulf War Aesthetic has emerged which echoes the complexity of the Iraq War. This development presents film sound as being as significant as a film's visuals in terms of communicating narrative information and in maintaining verisimilitude with transmedia representations of the conflict. In The Hurt Locker, I demonstrate that this presents itself in an unusual *unification* of film sound with image, where sound recording and design, in addition to the deployment of music, operate to communicate the components of a narrative specific to the story of bomb disposal. Although it shares The Hurt Locker's visual traits, I contrast Green Zone with the

earlier film and argue that the *Gulf War Aesthetic* is limited through the deployment of more conventional war film genre characteristics in its soundtrack.

A Brief History of Film Sound and Sound Theory

Film scholarship has privileged the visual over the aural component of film for decades, with sound receiving, as Martin Marks notes, "mostly cursory consideration" (1979: 283). Barbara Flueckiger identifies that in the film industry sound was "subordinate to the visual dominance in the storytelling process" for years (2009: 155), with sound effects of limited significance and with a restricted vocabulary reliant on existing sound libraries rather than sounds created individually for each film.

The contemporary film soundtrack, Flueckiger argues, was born of shifts in technology in the 1970s that allowed for multiple, complex tracks where new levels of detail could be achieved by sound mixers in the dubbing theatre and, significantly, subsequently heard by audiences in the cinema. Gianluca Sergi states that these technological innovations in recording and exhibition, driven by the work of Dolby Labs in the 1970s and 1980s, amounted to "nothing less than a comprehensive industry-wide transformation, from studio attitudes to sound, filtering through to filmmakers' creative use of sound and audience expectations" (2004: 11).

Whittington notes the significance of these technological changes coinciding with the emergent New Hollywood movement. The work of filmmakers George Lucas and Francis Ford Coppola was highly impactful on sound/image relationships in film during this period. The establishment in 1969 of American Zoetrope, their own production company in San Francisco, resulted in a number of films in which sound was foregrounded in terms of creating atmosphere, articulating spatial relationships and period, or literally in storytelling which made use of sound as a narrative device. Zoetrope member Walter Murch took a "sound montage" credit for his sound work with Lucas on the director's debut feature *THX1138* (1971), a credit that appears by his name a second time in *American Graffiti* (Lucas, 1973) and again in the titles of *The Conversation* (Coppola, 1974) – all three films produced by American Zoetrope. Sergi argues that this use of new terms, which were not recognised by the academy, was part of an attempt "to shift the focus from sound people as 'technicians' to sound people as 'creative' figures, both in political and creative terms" (2004: 182).

The impact on the sound department in these films came through practitioners working outside of the studio system, and led to a greater flexibility in the traditionally delineated roles of sound recordist, editor and mixer. This allowed for greater control and experimentation within each film's post-production (Whittington, 2007: 55). By *Apocalypse Now*, produced by Coppola's Zoetrope Studios, the film's Dolby Stereo 70mm Six-Track sound mix allowed Murch to move the audio around the cinematic space, both in front of and behind the audience. This expansion of the role of sound in cinema allowed by Dolby and similar technologies offered a further immersive quality beyond the earlier monophonic mixes. Whittington identifies Murch as the first to make use of the term 'sound design' in a production role on this film (2014: 11). The term 'sound designer' was attached to Murch in the credits to *Apocalypse Now* as Murch explains in a later interview:

I thought, "Well, if an interior designer can go into an architectural space and decorate it interestingly, that's sort of what I am doing in the theater. I'm

Page 31

taking the three-dimensional space of the theater and decorating it with sound". In my case, that was where 'sound designer', the term, came from. (Murch in Jarrett, 2000: 9)

Whittington describes this emergent sound design credit as having effectively expanded on the "experience of the film narrative and its emotive and visceral impact on audiences," and in doing so created a role which caused both scholars and audiences to "re-evaluate traditional image and sound relations" (2014: 555).

In this thesis, I bring together two traditions of film sound analysis – the study of production discourse and textual analysis of the *intrasoundtrack*, or the relationship between the soundtrack and the visuals components of film case studies. I do this in order to demonstrate the impact of technologies and techniques upon the case study films, and to understand how and where blurred roles within the sound department in part enabled by these shifts have allowed for new and innovative modes of storytelling.

Early film sound scholarship focused on specific elements – dialogue, effects and music – of the soundtrack, in isolation. This approach directly reflected labour relations and roles in the Hollywood studio system which originated after the emergence of the talkie in the late 1920s, where *sound editors* were typically responsible for "everything you hear on screen" (Gray, 2016). This included the organisation of dialogue recorded both during the production and during post-production through Looping or Dialogue Replacement (see Glossary), Foley – sound effects matched to action, or *syncretic* to the visual image – and other effects which realised the environment off-screen (Kerner, 1989). These roles are commonly sub-divided into those responsible for editing *dialogue* or *sound effects*.

film by a *composer* – or pre-existing 'source' music licensed and added to the soundtrack. *Sound mixers* take the work of both the sound and music editor for the final assemblage, determining which particular sounds should sit where in the mix, with the *re-recording mixer* the most senior position. As Tim Gray states, "after the sound editor has assembled what the audience hears, the sound mixer determines how they hear it" (2016). A *sound supervisor* served as the Head of Department managing each of these roles (Kracauer, 1997; Neale, 2012), though more commonly this role is designated a *supervising sound editor*, or *sound designer*.

Perhaps due to having been overlooked for so long and reflecting the changes to craft they were seeing within their own departments, many practitioners of film sound became vocal about their work and the production culture that surrounded it. Helen Hanson describes Walter Murch and Randy Thom, Director of Sound Design at Skywalker Sound and a multiple Academy Award winner for Best Sound Mixing on The Right Stuff (Kaufman, 1983) and Best Sound Editing on The Incredibles (Bird, 2004), as "theorising their own practices and creative decisions" (2007: 31). Much of this early published material was restricted to trade and guild publications. This included Marc Mancini's profiles of sound designers Frank Serafine, Jimmy MacDonald and Ben Burtt in Film Comment (1983) and an interview with Alan Splet in American Cinematographer regarding his sound effects for *Dune* (Lynch, 1984). *The Hollywood Reporter* profiled sound designers Skip Lievsay and Gary Rydstrom as part of their 'Craft Series' (Pizzello, 1992, 1993) and Robert Hershon offered similar profiles on film composers and music supervisors in Cineaste (1997, 1998, 2001), and Michael Jarrett's interview with Walter Murch in Film Quarterly (2000).

Also impactful have been collections of interviews serving to extend beyond an individual's account of their own craft in order to comment upon the changing history of sound practices. These include Evan Cameron's anthology *Sound and The Cinema: The Coming of Sound to American Films,* published in 1980. Film editor Vincent LoBrutto's *Sound-On-Film* followed in 1994, echoing his earlier interview collections with film editors (1991) and production designers (1992), collecting together 27 interviews with film sound practitioners. These collections present those involved in sound as creative and reflective and, in many instances, as determining a new critical and creative language brought about by changes to workflow but also changes in industrial practice.

Further attention was drawn to the craft through lectures at the biennial symposia, *The School of Sound*. This series of events, convened by the film editor and sound designer Larry Sider since 1998, resulted in the publication of a collection of interviews with participating sound designers, composers, filmmakers and scholars (Freeman and Sider, 2003). Sider notes in his Preface that the origin of the School was "a reaction to the way sound is generally under-valued in film and television, both in professional productions and where it is taught" and to create a space where those working with or studying sound could "take time out from 'doing' in order to think about the creativity, imagination and ingenuity" of film and television sound practice (2003: vii). As with earlier work by sound practitioners, the purpose was to highlight the importance of film sound and advances in the recording, design and use of music in the soundtrack.

Following the early work on sound by Elisabeth Weis in *Film Comment* (1978), Special Editor Rick Altman's issue of *Yale French Studies* in 1980 was one of the first edited collections of film scholarship's consideration of cinema sound. In the collection, Altman argues that the late arrival of sounds to film has had an effect of "implicitly hierarchizing them" (1980a: 14). Altman acknowledges in his later writing that the Yale French Studies collection focuses almost entirely on text, where "most of the articles aim at describing the properties of sound, the relationship between image and sound, or the functioning of sound in a particular textual situation" (1992: 3). Only later did scholars begin to consider the contexts of film sound more broadly, such as the organisation of the sound department as part of the film's production culture of film or the development of sound recording and design practice enabled by emergent technologies. An issue of Screen devoted to film sound followed in 1984 (Oxford Journals), and this work was further developed by Elisabeth Weis and John Belton's Film Sound: Theory and Practice in 1985. Weis and Belton state that their edited collection was born of their continuing "frustrations [which] came from inadequacies and gaps in the critical literature on sound" (1985: Preface, ix). The authors identify how scholarship had been previously dominated by work focused either on movie music or the birth of the sound era in film (1985: Preface, ix). In each of these examples, the focus of film sound practitioners and scholars is on challenging the notion that film is a predominantly visual medium. Although they acknowledge that film sound has been overlooked in film scholarship, these publications each work to reposition sound as significant to the making of meaning in cinema, in addition to providing a vocabulary of terminology to assist in methods of film sound analysis.

Many of these early works iterate the increased attention to film sound in the 1990s and the coinciding of the development and deployment of film sound with the emergence of US filmmakers such as Francis Ford Coppola, Martin Scorsese and George Lucas in the 1970s, who privileged sound in their films and made use of a greater use of sound and tone for a range of purposes, including the iteration of space, movement, narrative themes and character subjectivity. Weis and Belton draw attention to the technological advances in both home stereo and theatre exhibition in the same decade, which they argue created a more "sound conscious" audience (Weis and Belton, 1985: x). Gianluca Sergi terms this period, where technological change at home and in theatres had driven an increased audience expectation, changes in the definition of professional roles within film sound and the creative ambition with which sound was iterated by feature film filmmakers, as "The Dolby Era" (2004).

Film scholarship has since worked to understand the changing nature of the sound department within the wider industry and to make sense of how Foley artists, sound recordists, designers, editors and mixers have been speaking about their own practice. As Elisabeth Weis notes, "in sound studies there is much cross-fertilisation between the practitioners and the academics" (1999: 96). This is echoed in Sergi's scholarship, whose work combines interviews with film sound practitioners and textual analysis (2004).

Areas of research born of this period include the articulation and analysis of the form and function of sound in film (Chion, 1994, 2009, 2016; Van Leeuwen, 1999; Sonnenschein, 2001; Drever, 2002; Hanson, 2007; McGill, 2008; Belton, 2009; Buhler, Neumeyer and Deemer, 2009), the manner in which music and silence have been used to represent, emphasise or disrupt character, place or time (Gorbman, 1987; Kalinak, 1992; Smith, 1998; Buhler, Flinn and Neumeyer, 2000; Stilwell, 2000, 2003; Donnelly, 2001, 2005; Dickinson, 2002, 2008; Reay 2004;

Goldmark and Kiel, 2011; Goldmark, 2013), and the articulation of space, place and period through dialogue and sound design (Schafer, 1994; Chion, 1999; Kassabian, 2001, 2013). A further strand of research has considered the potential for new technologies, such as new theatrical sound systems, digital recording technologies and special effects, to affect the production and consumption of cinema (Weis and Belton, 1985; Altman, 1992; Sergi, 1998, 1999, 2004, 2013; Whittington, 2007, 2014).

Initially, editions of journals were given over to film sound studies, such as *Film Comment* (1983), *Cineaste* (1997) and, more recently, *The Cine-Files* (2015) and *Frames Cinema Journal* (2015). As the study and discussion of film sound scholarship has become more commonplace, new specialist scholarly journals have emerged. Among these are *Music, Sound and the Moving Image* (2007-2015), *The Soundtrack* (2008-), *The New Soundtrack* (2011-), *Journal of Sonic Studies* (2011-) and *Sound Studies* (2015-), all of which have furthered the scholarly understanding of film sound, methodologies and modes of analysis.

Within this scholarship, there is a tendency towards two groupings – the discussion of film sound through textual analysis, and analysis that considers film sound within the wider film industry or broader history of cinema. Gianluca Sergi notes in 2004 that in both areas of study, scholarship has continued to *isolate* each element of the soundtrack from another. He argues that a different method of analysis would be to consider the soundtrack – dialogue, effects and music – as a unified whole which operates *with* the image:

By singling out particular elements of a soundtrack, critics have been able to praise individual achievers rather than focus on the much more complex issue of what actually becomes of these 'individual' achievements once they are recorded, mixed and reproduced not as single independent units, but as part of the complex structure that is a soundtrack. (2004: 6) Sergi argues that the changing professional definition of practitioners and their roles in the 1970s and 1980s brought forward in some instances the discussion of film sound and its possibilities from its traditional place in post-production to development and pre-production. In his conclusions, he notes the potential of the soundtrack to serve as an exemplar of changing production practices in the film industry more broadly, and that changes in sound brought about by technology and emergent creativity have implications for screenwriting, directing and editing. Sergi also makes a case that the impact of scholarship on the study of film sound has implications across film studies as a whole (2004: 183-187).

James Buhler, Caryl Flinn and David Neumeyer observe that technological change and emergent roles born of those changes have impacted upon the production culture both inside and outside the sound department and present a further challenge to the film scholar. They state, "interdisciplinarity, like that of cinema itself, produces and is produced by a wide array of methodologies than can sometimes operate in direct conflict with one another" (Buhler, Flinn and Neumeyer, 2000: 3). My own approach acknowledges Michel Chion's suggestion that in a contract between a film and its audience, sound and visuals *combine* to add value (1994). As such, in this study I make use of a range of approaches and modes of analysis to explore the interrelation between sound and image. My intervention in the study of film sound is the detailed demonstration of how and where sound and image are *unified* in the two case study films, and how this unification shapes and contributes to a more sophisticated articulation of space, place and subjectivity within the *Gulf War Aesthetic*.

Methodology: Analysing Sound in Film

Dennis Schweiser states that three things should be considered when analysing a film soundtrack. The first is defining the components of the soundtrack itself, the second is examining how these components work together and the third is considering how the soundtrack can "create, manipulate and sustain the filmic illusion of reality" (2004: 18). In my analysis, I add a fourth consideration, which is examining the culture which surrounded the pre-production planning, production recording and post-production mix of the soundtrack, and considering the manner in which this works with the image to determine the characters' relationship with their environment within the narrative of the film.

Rick Altman, McGraw Jones and Sonia Tatroe argue that if scholarship surrounding film sound focuses on the "interactions among music, dialogue, and sound effects; it will in turn make new theoretical, methodological, and historical proposals" (in Buhler, Flinn and Neumeyer, 2000: 339-346). They describe the unified soundtrack of dialogue, effects and music as the "mise-en-bande":

Just as image analysis has benefited from the introduction of the comparative and relational notion of the mise-en-scene or 'putting onto the stage', so the understanding of the soundtrack requires the concept of mise-en-bande, or 'putting onto the soundtrack'. (2000: 341)

They suggest that a consideration of "intercomponent, intrasoundtrack relationships" would draw out connections between image and sound, and present a technique of close analysis to achieve this. This analysis of the "Multi-plane Soundsystem" (In Buhler, Flinn and Neumeyer, 2000: 339-346), or *intrasoundtrack*, considers the film text as a whole rather than arbitrarily separating music, dialogue and effects from their visual equivalents. Initially developed as a methodology to analyse early sound film, I argue that the use of this mode of analysis is imperative in understanding the operation of production and post-

production practices in order to read the unified mise-en-bande.

These techniques have been adapted by other scholars, including Randall Barnes' interpretation of sound (2005a, 2005b, 2007a, 2007b) in 11 Ethan and Joel Coen productions from *Blood Simple* (1984) to *The Ladykillers* (2004). Barnes argues that the Coens' production model, where they "foreground sound's contribution by priming their scripts for sound" (2005b: 4) requires the brothers to involve longstanding collaborators sound editor Skip Lievsay and music composer Carter Burwell from the development stages at the initiation of each project, and that this serves to privilege sound within the construction of their films. In his conclusion, Barnes argues that through this championing of early collaboration across departments, the Coens achieve a greater integration of sound within the films themselves than is common in film production. Barnes acknowledges that this better suits the Coens than other filmmakers, where films more commonly change substantially at each stage from script, through production and into the final edit, where in the Coens' work sound forms an inherent part of the script itself. In his analysis, he describes this practice as a "sound alliance" and argues that production workflow is improved in the making of each film through this methodology, and that sound and image are more unified within the films as a result (2005a: 275). He argues that the resultant effect is the more complex communication of narrative events through the privileging of sound design and music. I identify this practice within the production culture of involving sound practitioners within the development stages of The Hurt Locker and explore how this practice has a similar impact in the unification of sound and image in communicating narrative information within the film.

In his intrasoundtrack analysis, Barnes makes use of vertical columns with a diagram to analyse a scene with *Raising Arizona* (1987), identifying image events and their timecode within the film and using each column to separate different layers of sonic events within that timeline (2007b: 22-24). Though helpful in showing the layering of music and spot effects within the film's complex soundtrack and their relationship with image events, this diagrammatic form is limited in that it does not show the relative volume levels of these elements or their relative position or significance within the mix.

My own adaptation of this methodology builds upon Amy McGill's development of Barnes' attempt to articulate of Altman, Jones and Tatroe's intrasoundtrack analysis visually (2008). As in Barnes' work, McGill acknowledges the significance of sound in narrative storytelling. She describes a "contemporary" narrative mode that she argues is more complex and ranging in variety than the use of sound before it, which she argues emerged in the 1970s driven by both industrial and technological change in Hollywood (2008: 13). McGill notes that this use of sound by filmmakers including Robert Altman, Arthur Penn, Martin Scorsese and Mike Nichols presents "shifting, hybrid sonic styles" (2008: 13) which connect classical, independent and post-classical narration – definitions drawn from David Bordwell (1985), Geoff King (2000, 2006) and developed by Eleftharia Thanouli, who argues that the drivers of post-classical narration are related to a focus on drawing the audience's attention to the character's psychological or subjective state within the narrative rather than presenting an omniscient position (McGill, 2008; Thanouli, 2006: 144).

Bordwell and Thompson argue that in classical Hollywood cinema characters are

commonly positioned within narratives which have a tendency towards an "objective" story reality. Within these narratives, plotting is driven by events which have causal importance, and where the role of the soundtrack is to typically assist in the intelligibility of the story. Dialogue is commonly expositional, foregrounded in the mix and delivered with clarity, music provides tone and Foley and other sound effects lend a sense of realism to the characters and their environments. Within this filmmaking practice, silence is rarely deployed, and music and effects typically make room for dialogue (Bordwell and Thompson, 1993: 83).

Geoff King's work distinguishes independent narration in the post-studio era as one which is closer in tone to European art cinema in that causality and linear storytelling are secondary to stylisation and complexity (2006). McGill's analysis reveals how technology allows for what the sound designer Walter Murch has described as "dense clarity", where a number of layers of sound can be arranged within a mix without compromising overall understanding (Murch, 2005). These techniques – developed in the 1970s - departed from classical modes, shifting away from realism in some instances to using sound more creatively and expressively and, in some instances, challenging classical cinema's vococentrism (see Glossary), where dialogue is privileged over all of the other elements of a film's soundtrack (McGill, 2008: 296). She attributes these changes to the blurring of distinctions between international art cinema, American independent filmmaking and US studio productions that occured during that period (2008: 293-294). This is helpful in my own analysis of film sound in its communication of narrative information and characters' subjective experience of space and place in The Hurt Locker and Green Zone.

As in Barnes' work, McGill highlights the importance of collaboration between filmmakers and different sound personnel, particularly between music and sound design, which she identifies can result in "a clash of different sound components" in mainstream sound practice in Hollywood (2008: 290-294), and this observation is evident in the analysis of my own case studies. In her analysis of sequences from her two case study films directed by George Lucas – *THX1138* and *Star Wars* – and those directed by David Lynch, *Eraserhead* (1977), *Dune* (1984) and *Lost Highway* (1997), McGill makes use of what she describes as "graphical mise-en-bande readings" (2008: 295). She describes how this development in the method of reading the relationships between the components of the intrasoundtrack serves as a gateway to "capturing the complex relationships between the various professional roles involved in the creation of that product" (2008: 9). She uses this methodology to determine how film sound teams differ in their approaches to narrational modes and generic style.

McGill's intrasoundtrack analysis allows for the plotting of sonic events delineated as effects, music and dialogue on a chart - where volume forms the Y-axis, and time the X-axis (Figure 1).

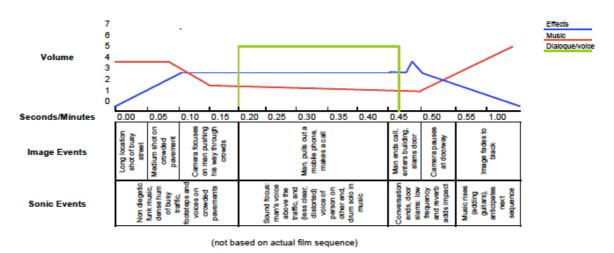


Figure 1: Graphical representation of intrasoundtrack analysis (McGill, 2008: 156)

Depending on the relative density of the sound and image events sequence, McGill varies the time increment of the X-axis to demonstrate what Sergi has referred to as "contrast" within a sound mix (2004: 148). The ability to isolate these spikes in volume, as demonstrated in Figure 1, are helpful in my own study where long sequences of silence are interrupted by heightened moments of combat. As in Barnes' methodology, McGill uses columns to demonstrate the timings and relationship between image and sonic events within a film text and the manner in which they make meaning as a unified whole. In an advancement of Barnes' methodology, the comparative volume levels of dialogue, music and sound effects (including Foley) are noted in chart form on an arbitrary scale of 1-7, demonstrating the relative interaction of these elements of the soundtrack. As Altman, Jones and Tatroe note, and McGill acknowledges, this volume scale can only be approximated through repeated and careful listening to a scene, "because individual sound components are not presented on isolated channels" within a film (2000: 343). This limitation of the methodology could potentially be resolved with access to the original sound files, where more accurate measurements could be undertaken. In both McGill's and my own use of intrasoundtrack analysis these are both approximated, though this development of the original methodology does allow for some element of precision in the consideration of both individual sonic components within the mise-en-bande and the connection of these to visual events within the mise-en-scene. This approach is helpful in providing a form of notation of the visual and audio events similar to those used within traditional clip analysis. In addition, intrasoundtrack analysis allows for the clear articulation of the interrelationship between the individual elements of the soundtrack and the image through the graphical representation of sequences within a scene. This mode of

analysis is helpful in establishing where sound is foregrounded in relation to what is happening on the screen.

Where McGill describes narrative events in her analysis, I have further developed the methodology in order to mark up the timing of the visual editing and list changes in the type of shot, and use terminology detailed by Blair Brown (2002) to describe shot construction, framing and other cinematographic techniques used within the accompanying image events within these sequences, such as Wide Shot, Medium Shot and Close-Up. By introducing these elements, I am able to articulate spatial relationships within scenes and introduce a greater specificity to the analysis of the relationship between sound and image events. In addition, codes for the type of sound distinguish specific events within the soundtrack – with dialogue marked D and listed where specific lines are performed, non-diegetic music marked M and effects marked E. Comparative volume levels are noted on a scale of 1-10, in order to provide further specificity to the dynamic between each component. Each scene is split into 15-second sections, where the visual component, shot type, composition and edit pace are noted in addition to the corresponding sound events (Figure 2).

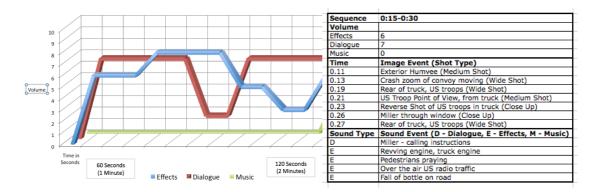


Figure 2: Graphical representation of intrasoundtrack analysis (Marshall, 2016) These add a further level of specificity to my own analysis, where the case study films make use of a fast editing pace typical of action cinema, and also where the position and interrelationship of characters within the film frame or wider off-screen geography of a scene is significant in understanding from which position events are both *seen* and *heard* by the audience.

Both Barnes and McGill acknowledge that intrasoundtrack analysis has limitations, and these are evident in my own use of this methodology. The elements of a film soundtrack are subject to many other factors beyond their relative volume – with dialogue, sound effects and film music all subject to reverberation, delay and other effects processing within the mix that are difficult to measure. In terms of the overall texture of a soundtrack, the interrelationship between the sonic elements is as dependent on the relationship between their relative frequencies, as their volume, though again this is difficult to illustrate within the diagram. This mode of analysis can also serve to simplify the performance of sound, particularly dialogue, but also in music and potentially in a film's Foley and effects.

By selecting specific scenes, rather than conducting an intrasoundtrack analysis of an entire film, the resultant methodology is only able to consider dialogue, effects and music in isolation, rather than within the larger structures of the film, where repetition of specific lines of dialogue, certain spot effects or the use of repeated refrains, or leitmotif, within the score made carry further meaning. These limitations present intrasoundtrack analysis as

McGill's intrasoundtrack analysis of *Star Wars* shows a *vococentric* (see Glossary) approach to sound which echoes classical film sound practice of unambiguous signification, where dialogue is foregrounded in the mix and provides the majority of narrative information in the scenes she analyses. This is contrasted with her

analysis of *Eraserhead*, where she argues that a more experimental deployment of the music and effects, which are foregrounded and therefore dominate in the soundtrack, challenges vococentricism by focusing the audience's attention on the emotion and tone of each scene rather than its dialogue.

In her conclusions, McGill states that this wide range of sound practice has been born of "the industrial realignments that led to flexible production processes, technological developments and emerging trends in storytelling technique and generic style, all of which have contributed to the diverse and complex character of the contemporary soundtrack" (2009: 289). She identifies significantly different approaches to sound in studio and independently financed productions, and modes of collaboration and configurations between sound designers and the filmmakers leading a production, which she identifies varies by project. In addition, and echoing Sergi's observation of the significance of post-production facilities such as Skywalker Sound in San Francisco (2004), she states that these connections between such facilities and film productions have served as catalysts for new modes of sonic practice and style since the 1970s.

In his consideration of the connections between an organisation such as a film production and role holders within that production, John Caldwell articulates the delineation of film production roles as labour, which includes either "below-the-line technical crafts (operators, editors, grips, etc.)" or the "above the line creative sector (cinematographers, directors, writers, producers)" (2008: 38). These descriptions of role holders are drawn from accounting terminology commonly associated with feature film production, with above-the-line denoting expenditure made prior to a film's principal photography. This typically consists of fixed costs and commonly includes obtaining the rights or commissioning a screenplay, and the appointment and employment of heads of department, including producer, director and director of photography, in addition to the actors. Below-the-line positions typically refer to craft or technical roles, which incur variable costs dependent on decisions made elsewhere in the production and typically include heads of sound, grip, electric, camera and post-production departments.

In order to better understand these relationships, and operating in support of this close reading of specific scenes chosen for the complex manner with which they articulate space, place and character subjectivity, I conducted interviews with a number of film practitioners. These interviews focused on those involved with the case study films, and began with *The Hurt Locker* director Kathryn Bigelow and screenwriter Mark Boal conducted in 2009 and published through the University Press of Mississippi (Marshall in Keough, 2013). Further interviews conducted for this thesis included those with the visual editor Chris Innis (2009), sound designer Paul N.J. Ottosson (2013) and the composers Marco Beltrami and Buck Sanders (2013). Interviews with the crew of *Green Zone* began in 2012 with Barry Ackroyd, who worked as director of photography on both of the case study films, followed by interviews with the film's composer John Powell (2016) and director Paul Greengrass (2016).

The interviews were conducted with sources traditionally considered *above-theline*, including directors, screenwriters and producers, in addition to those working *below-the-line*, including the technicians involved in the recording, editing, design and mixing of film sound, and the film's music composers. As Sherry Ortner notes, drawing helpful data from these interviews is less than certain, where above-theline interviewees may have been subject to dozens of such interviews in a junket tour and have a fixed idea of what an interviewer is seeking (in Mayer et al, 2009: 182). However, I argue that these interviews do resonate with the specific demands of this study. What is significant in these behind-the-scenes voices is the manner in which they have informed film scholarship, and in this thesis I demonstrate how theories of film sound have changed through the articulation of practice by those working within film production.

Making use of John Caldwell's (2004, 2006, 2008, 2009) and Caldwell and Vicki Mayer's (2007, 2009, 2011) study of production culture, I highlight the difficulties in separating technical and creative roles within the film crew and the notion of hierarchy in film production, and inspect the developing scholarship in this area. In Production Culture, John Caldwell argues that scholars "look beyond the standard split between film 'theory' and film 'work' and consider how film industrial practices, technologies, discourses, and interactions may involve critical analysis, theoretical elaboration, and aesthetic sense making" (2008: 7). He argues that through combining an ethnographical examination of the industrial practices of professionals working in film production with an analysis of the film under examination, something greater than the sum of each of these parts could be understood in relation to the manner in which a crew works and how a film subsequently makes meaning. Vicki Mayer observes that this form of analysis, when applied to specific productions, speaks not just to the film under examination, but offers "larger lessons about workers, their practices, and the role of their labors in relation to politics, economics and culture" (2009: 15). In Chapter One I argue that this is significant, through identifying how the types of stories centred around character subjectivity begin to change in the later cycle of Iraq War films. I argue that this is evident in *The Hurt Locker* and has been enabled in part through changing production processes which have allowed for their telling. These processes have been accelerated by the digitisation of sound and image workflow that began in the 2000s.

My methodological intervention is through coupling an intrasoundtrack textual analysis of the entire soundtrack of the films under discussion with an examination of current filmmaking production practice through interviews with practitioners and a study of what Caldwell describes "Semi-Embedded Deep Text[s]" (2008: 346-347), the artefacts around a film such as press kits, production notes and coverage by trade publications that serve as a form of communication between media professionals. I argue that this has wider implications for the study of changes in production culture beyond the taxonomy of the sound department.

Alan Bryman advocates the use of a mixture of techniques in research, what he describes as triangulation, stating that the deployment of qualitative research methodologies can provide a great depth or richness to data collected through interviews. He states that such methods require a "commitment to seeing the social world from the point of view of the actor," and adds that this approach allows "behaviour to be understood in the context of meaning systems employed by a particular group" (1984: 77-78). This is significant in the study of cinema where the final result – the film – is a project unique to a particular crew, who may not have worked together before. Although common roles, typical hierarchies and commonalities of good practice in terms of workflow are shared across productions, in actuality every film produced is bespoke. This can be seen in terms of the constitution and organisation of its crew and also in the culture of production

which develops in any particular film, unique through its financing and cast, but also in the relative complexity of the use of technologies, range of locations and production design. As such, the ability to engage with this production culture both from *within* the production through interviews and *outside* it through analysis provides a greater depth of understanding than following a single pathway.

Esen Ytreberg identifies three methodological strategies for research on the production of cultural texts. He describes one of these approaches as an "exchange strategy", in that its research design allows for the examination of both the culture surrounding the production of the text and the text itself. He argues that this approach to understanding both text and its context – whether this is regarded as a film's genre, the broader institutional structures in which it is made or the industrial practices of its making – can show how a genre and a production culture have changed over time (2000: 57-59). The benefit of an exchange strategy in this instance is that it frames the later intrasoundtrack analysis of the chapters of this thesis, relating "negotiations and conflicts in the production process to characteristics of the text in such a way that the relationships between priorities and their outcomes are clearly apparent" (Ytreberg, 2000: 59). This holistic reading of the stages of production - inception, pre-production, production, postproduction, together with a close intrasoundtrack analysis of the function of sound in the final film – allows a comprehensive understanding of how sound functions within the production. In addition, this promotes an understanding of a film's success in informing, to paraphrase Kevin McSorley, the subjective absorption of the character's experience with an understanding of the narrative for the audience (2012).

The interviews in the following chapters have been conducted using the techniques outlined by Steinar Kvale (1996), paying particular attention to his articulation of the ethical issues in this mode of research. Informed consent with the interviewees was secured with subjects related to the case study films, typically with an email explaining the purpose and procedure of the interview, the broader context of the interviewee's contribution to the thesis and who would have access to the interview. Where agents or other representatives were involved prior to speaking with the interviewee, this context was reiterated at the start of the interview, with the caveat that the interviewee would be able to review the transcript and material would only be used with their written consent (Kvale, 1996: 109-123, 153-159). The interviews themselves were typically conducted by telephone or Skype and audio recorded. Once completed, the interviews were transcribed and returned to the interviewee for their review and verification, with passages pertinent to the thesis highlighted (see Appendix One). The transcription was sent together with a Participant Information Statement and Release Form (see Appendix Two), which detailed the nature of the study, an agreement for the release of identifiable information and whether the interviewee wished to receive a report on completion of the study (Kvale, 1996: 259). This form was adapted from the Adult Opt-In Participant Information Statement from the University of East Anglia Education Department (Russell, 2016), and reviewed in line with the Research Ethics guidance (University of East Anglia, n.d.), with additional guidance drawn from the Faculty of Arts and Humanities Graduate School Student Handbook (University of East Anglia, 2016b).

I also made use of Kvale's notes on the narrative structuring in order to interpret the qualitative data gathered from the interviews. This allowed me to explore the creative parameters of each specific interviewee's role, typical workflows and how these align or deviate from standard practice in the production under discussion, their relationship with others in the crew and the impact of their work on the film's production (1996: 193). Kvale notes that the technique of the qualitative research interview can be seen either as *mining* – where knowledge is sought out and unearthed by the interviewer – or as *travelling*, where the interviewer wanders among the local inhabitants, asking subjects questions relating to their lived experience (1996: 3-4). Over the course of my own interviews, I served as both miner and traveller. I analysed and engaged with the crew behind each of the case studies and used the interviews to determine what Matthew Miles and Michael Huberman describe as patterns or clustering (In Kvale, 1996: 204) of behaviours or practice, which further informed the textual analysis of sequences discussed with the interviewees.

Jaber F. Gubrium and James A. Holstein warn, "the search for authenticity in practice is not an ultimate experiential truth [but] a methodically constructed social product that emerges from its reflective communicative practices" (2001: 11). In these terms, the interviewer is not mining or prospecting for *knowledge*, but for *meaning*, and in doing so the interviewer must identify the interviewee as subject. In addition, Gubrium and Holstein argue that this subjectivity is an active and dynamic process as the interviewee constructs the experience they are describing, which is "continually being assembled and modified" during an interview (2001: 16). As such, I built my question sets around examples given by Kathy Charmaz in her definition of objectivist grounded theory interviewing. She argues that this approach acknowledges that "(a) multiple realities exist, (b) data reflects the researchers and the research participants' mutual constructions and (c) the

researcher, however incompletely, enters and is affected by the participants' worlds" (2001: 678). This approach values the individual experience of the interviewees and, through open-ended questioning, allows for this experience to be expressed as views rather than facts, which privileges the context of the situation being described. Kvale describes the next stage of analysis as "Critical Commonsense Understanding" (1996: 214), that is, to interpret what an individual has said about their own work within the wider frame of understanding of the film's production culture as a whole.

While some of these interviewees were approached directly, in some instances I contacted agents or representatives through information available through an Internet Movie Database Pro account, a membership-based service which provides detailed contact and representative information for those involved in the film industry (IMDbPro, 2016). In a number of instances, I was directly referred to another member of the crew by an existing interviewee, avoiding the need to "work my way up" through the production, as Vicki Mayer describes, although I rearticulated the purpose of the interviews to each subsequent interviewee following the procedure outlined earlier in this Introduction (2008: 144, 146). In each instance, the interviews were transcribed and sent back to the interviewee for review together with a release form which detailed the purpose of the study and how the interview material would be used and disseminated – examples of which are included in Appendix Two and Three.

These interviews contest the traditional delineation of roles within a production, and illustrate the complexity of defining roles. As an example, the role of the composers Marco Beltrami and Buck Sanders in *The Hurt Locker*, and the position of their music as purely a score within the film's soundtrack, come into question when the supervising sound editor Ottosson reveals that he made use of elements of the musical score as background textures within his own sound design in a scene (Ottosson, 2013). Similarly, the composers detail how they made use within their compositions of production audio recorded during the shoot by sound recordist and mixer Ray Beckett and provided to them by Ottosson (Beltrami, 2013). I demonstrate that this exchange of files and ideas is not just limited to music and sound design, but also extends into the articulation of space through dialogue, Foley and effects within the soundtrack as a whole. As I detail in Chapter Three, this is evident in *The Hurt Locker*, where close analysis reveals that the whip pan of the camera and Beckett's swing of the boom microphone on set where sound would ordinarily be edited into a master track for continuity, rather than reflecting camera movement in a scene – is mirrored in Ottosson's positioning of sound within the mix. Ottosson reveals in the interview the use of this technique in order to articulate the physical distance between characters and danger within a scene. In both of these examples, the creative initiator or owner is blurred, and they demonstrate the changing taxonomies of practice within digital film production.

In summary, this thesis makes use of a mixed methodology to combine interviews with practitioners involved with the case study films with the textual analysis of the films themselves. This approach allows an analysis of how the structures of film production impact on the finished products of filmmaking. I argue that the combination of practitioner interviews and an analysis of the intrasoundtrack – the relationship between the elements of the soundtrack with the image and a film's visual editing – reveals that multiple aesthetics are at play. I also make use of

production studies methods to investigate the manner with which this aesthetic has emerged as the result of both economic and creative drivers. I identify that in *The Hurt Locker* and *Green Zone*, although both advanced the *Gulf War Aesthetic* in some ways, a very different articulation of space, place and subjectivity is implemented, in particular in terms of the use of sound and its unification with the image. I evaluate the subsequent impact of this outside the specific genre of the war film, particularly in a shift in the way in which spectacle is presented in cinema. In this combination of approaches, we can see more clearly the intervention that sound has made in a specific genre of film, and in cinema more broadly.

Case Studies

I subject both of the case study films – *The Hurt Locker* and *Green Zone* – to an analysis of their production culture informed by interviews with practitioners involved in each film, and then provide a close reading of the intrasoundtrack of each film, testing what has been said against what is evident in the film itself. The impact of sound on each film affects the manner with which characters are articulated, and the spaces and places they occupy. Bigelow and Greengrass make use of transmedia techniques within the culture of their feature filmmaking production in order to maintain the integrity of their source material, and present the dangers of often unseen combatants within the asymmetrical warfare of the conflict.

I first spoke to film director Kathryn Bigelow about *The Hurt Locker* in 2009, prior to the film's awards campaign and subsequent six wins from nine nominations at the Academy Awards in the following year. What was most striking in the interview, later published by the University of Mississippi Press (in Keough, 2013), was not only the manner with which she articulated the significance of sound design in maintaining the integrity of the film, but how she highlighted the contribution of specific personnel in achieving this. Bigelow spoke about production relationships typical of those between a director and senior members of the production team, such as with the film's writer and co-producer Mark Boal and other heads of department, including Ottosson, sound designer and supervising sound editor, and Barry Ackroyd, director of photography. The interview revealed something more unusual, however. Specifically, the director cited the significant contribution of the film's production recordist and sound mixer, Ray Beckett, who she mentioned by name and spoke about at some length regarding how his work in Jordan during the shoot allowed the film's soundtrack to consist of 95% sound that had been recorded on location (Bigelow and Boal, 2009). The significance of Beckett's contribution has been iterated in a number of interviews and in the director's 2010 Academy Award acceptance speech (in Keough, 2013: 212).

The independent financing of *The Hurt Locker* allowed the producers the freedom to shoot the film almost entirely on location in Jordan, with a large proportion of the sound recording captured during production rather than constructed in post-production, and I argue that this shaped the articulation of spatiality in this film. The unusually high ratio of production sound in the film is also highlighted in a later interview with Ottosson, who comments that it is far more common in his experience for dialogue, Foley and effects to be added to action films during post-production (2013). Their achievement was noted by the Academy, with Beckett and Ottosson sharing the Academy Award in 2010 for Best Achievement in Sound Mixing and with Ottosson securing a second Academy Award in 2013 for his work on Bigelow's subsequent film *Zero Dark Thirty* (2012). In this later film, Beckett

again served as sound recordist and Ottosson acknowledges sound was once again privileged by the director from the script stage (Ottosson, 2013).

Director Kathryn Bigelow states that, because of the importance of space and subjectivity in the narrative, it was her intention for The Hurt Locker to "be a predominantly sound design movie, not score heavy, and really let the sound design complete the image" (Bigelow and Boal, 2009). I argue that in The Hurt *Locker* the early integration of a number of traditionally separated film sound roles, and the high importance placed on sound by the director, created a unique relationship between sound and image. I highlight the importance of the source material having originated from an embedded reporter, Mark Boal, whose writing of the screenplay and role as producer was, I argue, essential to the integrity of the material and the articulation of spatiality within his final script. As such, the script offers little in the way of context or background to the action, and I determine that this approach was enabled, in part, by the film's independent financing and location shoot, which distanced the style and execution of the production from the traditional studio system typical of more mainstream US filmmaking. The film's visual editor, Chris Innis, states that the "producers saw that is was a tight, welltold film and left us virtually alone, which would be almost unheard of in a studio setting" (in Marshall, 2013: 201), again indicating a distinction of The Hurt Locker from typical cultures within feature film production.

Laura Rascaroli has described Bigelow's cinema as "straight from and to the cerebral cortex, in a movement that doubles (or mirrors) that of human perception [where] Bigelow seems to aim to reduce the distance between the camera's eye and the human eye, in order to reach what she describes as a 'transparent'

cinema" (1997: 237). Through an intrasoundtrack analysis of selected scenes from *The Hurt Locker*, I argue that this transparent cinema challenges notions of reality, through the use of Barry Ackroyd's cinematography – which draws upon a handheld aesthetic more usually found in documentary film, but also through sound. Rascaroli's observation is concerned with the visual element of Bigelow's films, but the combination of this desire to compress the space between what is filmed and seen, and what is recorded and heard in the cinema through the taskscape explicitly links the camera's eye *and* the microphone's ear. This effectively reduces the distance between what the audience hears and sees in the cinema, and extends the notion of Bigelow's transparent cinema to sound in *The Hurt Locker*.

Bigelow's focus on the significance of sound to assist in narrative understanding of her characters and the genre in which they are operating has been observed by Robynn Stilwell (2003) and Heidi Wilkins who, in their analysis of *Point Break* (Bigelow, 1991) and *Strange Days* (Bigelow, 1995), comment upon the manner with which the filmmaker combines "music and ambient sound in the generation of meanings that complement and, sometimes, subvert those generated by the narrative" of her films (2011: 98). This development or subversion of genre conventions is also critical to *The Hurt Locker*, where a sense of cinematic realism is achieved through the visual image being underpinned by production sound. I argue that this is designed to avoid the form of accentuated sound that is more common in the Hollywood war film or action adventure genre – what Paul Sharits has described as sound "cinematics" (in Ragona, 2008: 174). Comparing the realist aesthetics in the visuals to the use of sound serves to create an unusual spatiality around the characters occupying *The Hurt Locker*, and I contend that the distinction between the viewer/listener and what is viewed/heard in the film has

become consolidated. As Andre Bazin has suggested, here the sound has become "the being of the model of which it is the reproduction" (1960: 5-9), in that the audience of the film occupy both the point of audition and point of view of the camera and, unusually, the soundtrack dynamically responds to the camera's movement and the film's visual editing.

I focus on the film's score together with its sound recording and post-production design and, in Chapter Two, contrast this with the more conventional modes of production utilised in *Green Zone*. In Paul Greengrass' film, John Powell's score dominates the soundtrack and, as is the convention in the action adventure genre, provides continuity to disparate cinematography and accentuates the emotional impact of action sequences, leading away from 'transparent' sound design (Powell, 2016). Although both of the case study films originate from accounts of embedded reportage and share many similarities in terms of their visual aesthetic, the articulation of tone, space, place and pace operate in sharp contrast. This is particularly evident in the use of exterior locations in *Green Zone*, and I draw upon a number of interviews from practitioners involved in the film's production to explore the reasons for this, provide detail as to how some crew roles were expanded or blurred from more traditional production practice, and analyse the reasons behind these differentiations.

Summary of Structure

This thesis consists of three chapters. In Chapter One, Sound and Spectacle in Representations of Conflict: The Development of the *Gulf War Aesthetic*, I identify the significance of sound in the war film genre. I evaluate the changing nature of television news coverage of conflict leading up to the Gulf War in 1991. I detail the

emergence of the embedded reporter in the US Invasion of Grenada and in the Falklands Conflict and demonstrate the significant impact this mode of reporting had on the aesthetics of news reportage in the conflicts that followed. I examine the launch of 24-hour news coverage in 1980 with CNN, and the significance of CNN's position as the only news organisation with reporters in Irag at the launch of the 1991 invasion which followed the aerial bombing campaign at the beginning of the Gulf War. I argue that the drive to broadcast guickly lent a sense of authenticity to conflict reported in real time, and examine the effect on how other forms of media have subsequently articulated war both visually and sonically. I identify the conventions of what I describe as the Gulf War Aesthetic and examine how this functions across different media, in television, feature-length documentary and narrative feature films. I determine how this aesthetic develops with the later War in Afghanistan and the Irag War and the combination of globalisation and the impact of new technologies, specifically Web distribution platforms such as YouTube, on how representations of conflict look and sound. In the introduction to my case study films, I argue how the shift into a post-digital landscape of these varied media has affected sound production techniques in cinema.

In Chapter Two, Imperial Life in the Emerald City: *Green Zone* as Production Study, I use *Green Zone* – directed by Paul Greengrass and financed and released by Universal Studios – as a case study. In this chapter, I use interviews with practitioners involved in the making of the film to examine the working practices of a large-budget, narrative feature film produced within the studio system. In this chapter, I unpack the operation of the sound department in this film, making use of John Caldwell's notion of "industrial theorising" (2009: 167) in order to bring together academic studies with the commercial and industrial understandings of creative practice.

I examine the structure of the sound department, and the place of this department within the film production as a whole. Through close analysis of the film's intrasoundtrack, I demonstrate how the sound design of *Green Zone* is similar to that of contemporaneous action cinema, such as the *Bourne* franchise (2002-) of which three of the five films to date, *The Bourne Supremacy* (2004), *The Bourne Ultimatum* (2007) and *Jason Bourne* (2016a) share the same director, Paul Greengrass, and many of the same crew. As in those films, the cinematography echoes documentary techniques in the use of multiple hand-held cameras to provide a sense of verisimilitude, and I detail how this conforms to the *Gulf War Aesthetic* identified in Chapter One. I argue that the reliance on post-production sound design techniques and the deployment of a score more typical of the action or war film genre undermines the manner with which these visuals otherwise match the *Gulf War Aesthetic*. I argue that this *lack* of unity between sound and picture serves to undermine the narrative conceit.

In Chapter Three, The Man in the Bomb Suit: *The Hurt Locker* as Production Study, I contrast the production culture and intrasoundtrack analysis of the independently financed production of *The Hurt Locker* with the studio-financed *Green Zone*. As in Chapter Two, I make use of the methodology of combining interviews with the film's practitioners with an intrasoundtrack analysis of similar scenes and sequences to determine the differences in production culture in the two films, and identify how and where sound is privileged or foregrounded within the film. In this closing chapter, I investigate how a changing model of production practice, in part enabled by the digitisation of workflow, but also in response to post-digital changes in the capture, distribution and dissemination of image and sound in a broader sense, has informed and expanded the aural aesthetic of cinema in this film. I argue that in *The Hurt Locker*'s sound and image are unusually unified in their articulation of space and place. I argue that the environment in which this occurs is driven by a production culture which privileges sound and is accelerated by processes of digitisation, amongst other factors, which have served as a catalyst that has altered the relationship both between members of the sound department – such as those involved in sound design and music – but also other creative practitioners, particularly visual editors. I argue that this has served to erode the delineation of disciplines within filmmaking practice.

In the Conclusion to the thesis, I argue that through contrasting the roles and creative practice in the respective independently and studio-financed case study films, the climate of production in narrative feature film has directly affected the manner with which film sound has been recorded, designed, mixed and exhibited. In each of the case study films, I demonstrate that these modes of working have blurred some of the traditional boundaries between Foley and sound effects, film music and sound design. More significantly, I argue that the convergence of a number of wider technological and personnel shifts within film production, and the manner in which sound works with image, has impacted on realist aesthetics in wider cinema.

My original contribution to knowledge lies in the way in which I draw an alignment of the creative practice of film practitioners articulated in interviews with the detailed, intrasoundtrack analysis of the scenes they discuss, and how this reveals that transmedia contexts of production are operating and how new aesthetics are being reified and codified in cinema. I argue that this methodological intervention extends beyond film sound and could be applied to other modes of production craft – whether the examination of editing, cinematography or the work of producers.

As these shifts in the film sound departments of the 1970s resulted in the new credit of the sound designer and a development of the use of sound in film, I argue that the impact of technological change on other departments, and changes to the funding and production of contemporary film, has destabilised traditional modes of narrative filmmaking practice. The result, I argue, is the delineation of roles within film production and a corresponding increase in the potential impact of an individual practitioner's creative contribution. I also identify how a relatively small number of films have impacted more broadly in terms of the significance of representations of realism in both visual language and sound design. I argue that this is evident in the importance of personal subjectivity in a number of genres, where a character's visual point of view is often accompanied by their sonic point of audition, rather than an omniscient sound design showing the entirety of the pro-filmic world.

Chapter One Sound and Spectacle in Representations of Conflict: The Development of the *Gulf War Aesthetic*

The point is that any understanding of the 'genre' of Hollywood war movies has to begin by seeing the conditions of their production as an institutionalised compromise, of course constantly renegotiated, but insistently kept with the frame of two [...] balancing myths [...] the continuing tensions between military, politicians and film-makers. (Barker, 2011: 12)

In this opening chapter, I focus on how the visual and aural codes of news reportage – particularly within the 24-hour rolling news cycles that broadcast footage from the Gulf War (1990-1991) and the Iraq War (2003-2011) – have redefined transmedia coverage of conflict through the privileging of immediacy, personal subjectivity and articulating a sense of being close to the action. I contextualise the news coverage of the Gulf War and Irag War in terms of a media strategy that has been developed by the US and UK military in the conflicts since World War Two, and resulted in the practice of embedding reporters which began with the Falklands Conflict. I argue that newly available technologies, coupled with changing institutional relationships between news organisations and US and UK military forces that began with the Falklands Conflict as a reaction to negative media coverage of US operations in Vietnam, have had a dramatic effect on the visual and sonic aesthetics of war reporting. I connect these changes to the manner with which other forms of media, such as documentaries, video games and narrative feature films, have articulated conflict visually and sonically, and specifically on the impact of the war genre on narrative film.

I evaluate how restrictions on reportage, combined with the developments in military technology and the emergence of lightweight broadcast technology that allowed for real-time broadcasts from the field, led to a visual and audio style that I define as the *Gulf War Aesthetic*. I argue that although the representation of the

Iraq War in news reportage and documentary was initially very similar to that of the earlier Gulf War in terms of its aesthetic and narrative, the longer campaign of the second conflict, combined with emergent modes of journalism and changes to the distribution of footage via the Internet, created a shift in the manner with which war has subsequently been represented on screen.

The censored narrative of the Gulf War can be contrasted with both the multiplicity of narratives surrounding the Iraq War, discussed in more detail later in this chapter, and with the emergence of amateur footage during this later conflict, which offered 'first-hand' insight into the individual experiences of those involved. This was compounded by the range of organisations reporting from the conflict and the distribution of footage from previously unrepresented actors – such as enemy combatants – in addition to Coalition forces. Specifically, I argue that the emergence of citizen journalism and the distribution of large amounts of amateur footage through YouTube and other Web platforms – some of which have been latterly appropriated for documentaries such as *Gunner Palace* (Epperlein and Tucker, 2004), *The War Tapes* (Scranton, 2006) and *Severe Clear* (Fraga, 2009) – filled the void left by limited, military-sanctioned reporting by western news media and further blurred the aesthetic and narrative conventions that had traditionally delineated professional from amateur reportage.

Deborah Jaramillo states that "the power of news programming lies in its ability to construct very specific ways of seeing and hearing the World in conflict" (2009: 2). She argues that sound was imperative in drawing audiences to the television in news coverage of the Gulf War and Iraq War – whether through the theme music which accompanied title sequences, the spot effects used during transitions or the

diegetic sound that accompanied the reports themselves. The inclusion of iconic sounds, such as the air raid sirens of Kuwait City or Riyadh, the boom of Iraqi antiaircraft fire and launches of Coalition jets and missiles, in addition to the subsequent explosions of those missiles, have become critical to how war has been articulated by reporters. Jaramillo argues that "diegetic sounds in television news are the keys to journalistic fidelity" (2009: 158), and in both the amateur footage and the mainstream news organisations' coverage of these wars, this articulation of fidelity through sound has given rise to a construction of spatiality, the articulation of danger and the spectacle of war that differs from the reportage which preceded the Gulf War.

I argue that this presented a number of opportunities for the development of an aesthetic of conflict outside of the mainstream news media, not only through emergent professional news organisations such as AI Jazeera, but also through short amateur videos uploaded by individuals, which reached large global audiences through social media. My intervention into contemporary debates regarding the representation of recent conflict is to argue that many of these emergent modes of mediation privileged sound as a means of communicating danger, a sense of realism and a closeness to conflict. The subsequent impact on transmedia storytelling is evident across multiple platforms in forms as diverse as television, news reportage and video games, and each of these platforms has led cinema to certain tendencies in the image, sound and construction of space in narrative feature films representing conflict – the *Gulf War Aesthetic*.

The Purpose of the War Film

Through investigating the impact on reportage following changes to the

relationships between the media and military in conflicts prior to the Iraq War, I evaluate in this chapter how new policies of war reporting – specifically the emergence of the pool or embedded reporter – directly affected the narratives and aesthetics of reporting following the Vietnam War.

Daniel Hallin emphasises how news media have traditionally provided implicit and explicit support for war (1986), arguing that this position originated in the coverage of war in national propaganda, whether that was articulated through news reportage, documentary or narrative feature film. In his book *War Cinema: Hollywood on the Front Line*, Guy Westwell outlines that this positioning of US filmmaking in support of war was initially forged under the auspices of the United States Office of War Information during World War Two, although he acknowledges that this became less explicit in later conflicts (2006). In order to enforce a political and military message, the US military imposed draconian restrictions on those correspondents tasked to report war. Barry E. Venable describes how in the Korean War (1950-1953) full censorship was imposed six months into the conflict, to the extent that reporters faced court-martial for any deviation from instructions issued to them by the military (2002: 67).

During the Vietnam War (1955-1975), journalists in the field were able to travel freely around the country, and changes in technology allowed them to generate television reportage that was able to report independently of the military and subsequently challenge official sources. For the first time, it was the striking imagery of the war rather than print news media which dominated news reports in the US during the Vietnam War, although the delay in shipping tapes from the country back to the news organisations limited the effectiveness of what was being reported, with written dispatches often more current to events in the field than TV broadcasts. Stig A. Nohrstedt notes that this change from news organisations' previously tacit support of conflict added fuel to the fire of the anti-Vietnam protest movement (in Nohrstedt and Ottosen, 2005). Venable articulates a widely held belief by the US military that the "enduring legacy of media coverage of this war [in Vietnam] is the charge that the media lost the war by its negative reporting" (2002: 67). Devine argues that this media coverage of the Vietnam War was differentiated from representations of earlier wars, particularly through the embrace in coverage of not only those who were fighting, but of the social and cultural implications and connotations of the conflict in the US and overseas. He summarises these narratives as relating "not just [to] the jungles of Southeast Asia but also in the domestic issues of conscription, protest, veteran reintegration, loss and rebirth" (1995: xiv).

News reportage from Vietnam deviated from previous modes of representing war, and resulted in what Devine describes as "a portrait of a nation at war not with a common enemy but with itself" (1995: ix). Michael Anderegg states that the feature films, documentaries and television coverage associated with the Vietnam War did not present a unified voice in representations of the conflict, and that instead any single impression offered "a highly limited facet of a many-surfaced object" (1991: 14). He notes that a number of documentary films made during and after US operations in Vietnam were often framed as "exposing the truth" but observes that what they achieved far more effectively was to expose not any singular truth, but the difficulty of definitively representing the war on screen at all (1991: 14). Anderegg argues that while the mediation of conflicts may demonstrate clear aesthetic connections – through iconography, mise-en-scene or geography – in Vietnam, they were neither coherent nor unified in their narrative representation. As I will detail in Chapters Two and Three, an advancement in the characteristics of the *Gulf War Aesthetic* in *Green Zone* and *The Hurt Locker* parallel those representations of the Vietnam War and address this issue of coherency in relation to the Iraq War through extremely intimate representations of interiority and individual subjectivity. I argue that *The Hurt Locker* represents a shift in film production that has engendered the development of new techniques which amount to a unification of sound and image design. These techniques fully exploit the properties of an advanced *Gulf War Aesthetic* that mirrors the transmedia reporting of the Iraq War in order to shape how the film's characters experience the world around them.

The Emergence of the Embedded Reporter

In reaction to press coverage of the Vietnam War, a tightening of the restrictions applied to reporting from theatres of conflict was implemented in what Nohrstedt describes as a negotiation between the news media and military forces under a harder strategy of relations (in Nohrstedt and Ottosen, 2005). These strategies have affected each conflict that followed Vietnam and reached their peak with the media's reportage of the Gulf War – what James Der Derian has described as representing a "Military-Industrial-Media-Entertainment Network" (2001).

The first test of the revised media/military relations after Vietnam came in the Falklands Conflict, which took place in 1982 and followed the Argentinian invasion of two British Overseas Territories, the Falkland Islands and the South Georgia and South Sandwich Islands. During the course of the conflict, over 30 British reporters and technical crew, including 19 from newspapers, two from radio and

three from television, sailed with the British Task Force to the South Atlantic. The reporters were situated on the aircraft carriers HMS Invincible and HMS Hermes, and the troop ship SS Canberra. Although the reporting was subjective and experiential, in large part reflecting the experience of the reporters on ship with the armed forces, all material was subject to censorship by Operational Information Officers – military minders who cleared any footage and then arranged for transmission back to the UK (Harris, 1983). David E. Morrison and Howard Tumber argue that the embedding of British reporters with troops in the Falklands Conflict changed the nature of war reportage. They state that:

The journalists not only merely observed their subjects, but lived their lives and shared their experiences, and those experiences were of such emotional intensity that the form of prose which journalists use to take the reader into the experience – the "I was there" form – provided not only a window for the reader, but also a door for partiality irrespective of any desire to remain the detached professional outsider (1988: 95-96).

In this example, the reportage from the Falklands Conflict shifted from being represented or portrayed as an objective account of events to one where the journalists' subjective experience as embedded reporters working with the troops became an important component of the narrative.

Despite the availability of a feed from the fleet and satellite technology, all outgoing communications were controlled by the military, allowing the armed forces to limit both the content and the timing of reportage made by those reporters travelling with the fleet. Initially there were no live visuals from the Falklands Conflict at all. Instead, the voices of BBC TV reporters Brian Hanrahan and Robert Fox and Michael Nicholson of ITN were broadcast on television accompanied only by still images with sound foregrounded in these reports as a necessity. In fact, the first photographs of fighting soldiers on the islands arrived seven weeks after combat had begun, and the first television pictures were broadcast in the last 20 days of the 74-day conflict. These press reports focused primarily on technology, on the effectiveness of the Sea Harrier jump jet specifically, and the danger Argentinian Exocet missiles posed to the British fleet. In addition, reportage focused on the experience of the troops, rather than a consideration of any wider context, with the news media broadly reporting what was relayed to them from Ministry of Defence briefings (Barnes, 2002). This narrative of war at a distance prosecuted through technology and made via embedded reporters distant from the action, reporting through voiceover and still images, was echoed during the Gulf War ten years later.

These changes to reportage in the Falklands Conflict corresponded with a shift in war films which focused on individuals and their experience within a constrained time frame or incident rather than broader narratives of wars as a whole. Although this was initially made evident in films which used this specific conflict as its setting, I will assert in later chapters the impact on the war film genre more broadly and the manner with which embedded reportage informed changes in sound and visual representation are explored in the case study films The Hurt Locker and *Green Zone*. Mark Donnelly observes that, in the void of contemporaneous reportage from the Falklands Conflict itself, it was through the production of fiction films such as Tumbledown (Eyre, 1988), Resurrected (Greengrass, 1989) and The Falklands Play (Samuels, 2002), broadcast after the Argentinian decision to capitulate, that "partly made up for the absence of pictures at the time of the conflict" (2005: Foreword). Each of these films draw upon real events and focuses on the consequences of conflict. *Tumbledown*'s narrative centres on the disability of a soldier paralysed by sniper fire, Resurrected's on a soldier presumed dead on the islands but later prosecuted for desertion on his return to barracks, and The

Falklands Play on the build-up and execution of the war from the perspective of the British government.

Despite the controlled use of embedded reporters during the Falklands Conflict, some news broadcasts drawn from briefings from the Ministry of Defence in London were considered to have endangered operations, specifically in terms of information related to the bombing strategies deployed by the Argentinian Air Force in their attacks on the British fleet (Woodward and Robinson, 1992). Scott M. Henne, a US Army Major, describes how these "operational security violations by the press during the fighting in the Falklands influenced United States military thinking" at the time (1994: 6). In 1983, a year after the Falklands Conflict had ended, US forces were involved in the Invasion of Grenada. Having learnt from the British experience, the US military deployed further restrictions on the press. In this first military engagement by the US since Vietnam, no arrangements at all were initially made to accommodate news reporters, with the explicit intention of exercising greater control over the media and presenting a more unified message on the conflict to domestic audiences in the US (Henne, 1994: 6). This policy was to be further developed in the years leading up to the Gulf War in 1991.

Having suffered protests after the initial barring of the press in the opening days of the Invasion of Grenada, a small press pool of journalists was eventually allowed onto the island by the US military, but only after combat operations had ceased. Kevin J. Brogan comments: "Analysts, such as Gailey (1983) and Farrell (1983) note how the media strongly protested this shutout, labelling it a policy of secret wars and hidden agendas. These complaints of secrecy forced the [US] military to examine its war coverage procedures" (2006: 111). The subsequent backlash

Page 73

against censorship from the news agencies and their 500 reporters not included in the 15 journalists selected for the Grenada invasion press pool prompted the US Secretary of Defense to form the Military-Media Relations Panel. This commission, led by Winant Sidle, the retired Chief of Information for the Army, presented a Statement of Principle to the Department of Defense (DoD) that was later adapted as a paradigm for all future media coverage of US military operations (Venable, 2002).

The first implementation of these principles occurred in Operation Just Cause, the US invasion of Panama (1989-1990). Although a National Media Pool (NMP) had been formed and supported by the Joint Chiefs of Staff, the actual implementation of Sidle's recommendations had been poor, in part due to continuing concerns about operational security that resulted in a delayed announcement causing journalists to again miss the initial attack. The subsequent furore prompted a second report by Fred Hoffman, an Associated Press reporter who had worked at the DoD. Hoffman's report argued that the military was required to work with the media, rather than attempt to control it. Chairman of the Joint Chiefs of Staff, General Colin Powell, issued a strongly worded directive to military commanders stressing the importance of engaging with the press in the planning and execution of future operations (Powell, 1990). Powell held this position during the invasion of Panama and continued in the role during the Gulf War of 1991, Operation Desert Storm, extending the use of embedded reportage into the conflict. Brogan states that the DoD's Public Affairs Officers (PAO) assembled 17 journalists and technicians to form the original National Media Pool as events developed in the lead-up to the Persian Gulf War, and activated the pool two days after the first US fighter jets had arrived in Saudi Arabia (2006). James Winter notes that of the

1,400 journalists in the Persian Gulf, only 192 were pooled with combat forces, of whom only 30 of this group were situated on the front line with the 800,000 Coalition troops (1992: 2-3). As a result of this action, and echoing the earlier mediation of the Falklands War, reporting of conflict on the ground from these reporters was limited to what had been sanctioned by the military and were highly subjective.

Venable outlines the procedure undertaken by pool reporters, who had to "be accredited by the US Central Command (CENTCOM) Joint Information Bureau (JIB)," while journalists who wanted access to specific military units were assigned to pools, usually five-person groups, and accompanied by escort officers (2002: 68-69). Venable explains that, "At any one time, there might be 25 pools somewhere in the field, with the remaining 1,000 or so journalists mostly stranded in luxury hotels" (2002: 68-69). Esra Sandikcioglu argues that the result was the framing of the invasion in Orientalist metaphors – where the Coalition forces were presented as mature and rational against the Iraqis, who were positioned in turn as an immature and emotional Other. She argues that this amounts to a simplification of a complex conflict, and that this framing was presented unchallenged by any discourse to the contrary gathered by the embedded reporters (2003: 317).

Hamid Mowlana, George Gerbner and Herbert I. Schiller observe that, with regard to the first conflict in Iraq, news reportage, through global news networks, effected "near total Western control of news about international conflict" (1992: xi). As a result, the Gulf War, they suggest, was "a triumph of information and image management" for the Coalition forces (1992: 29). Philip M. Taylor questions the role of the media in this instance, arguing that this detailed coverage of very specific parts of the conflict, selected by the military in order to present the conflict in the best light in terms of precision strikes and limited civilian causalities, did not amount to a balanced or investigative overview, yet directly affected the outside world's perception of the war (1991: 270). With few counter-narratives of the war at this stage, the *Gulf War Aesthetic* was not yet visible but would emerge as a result, in part, of the individual, subjective experience of these embedded reporters.

The Gulf War (1990-1991)

Douglas Kellner describes the Gulf War, where US television networks provided regular real-time reports via satellite technology throughout the Iraqi invasion and subsequent occupation of Kuwait in the lead-up to the conflict, as a "television war" (1992). While the written dispatches from the front that had dominated war coverage in earlier conflicts may have been disrupted by the power of the imagery delivered by the television news reporters in Vietnam 20 years earlier, by the time of the Gulf War, a combination of satellite broadcasting technologies and news networks such as CNN enabled these reports to be both global and broadcast live for the first time. Jeremy M. Devine argues that the "written word recedes in the wake of the electronic media and instantaneous satellite imagery exemplified by the coverage of the Persian Gulf war" (1995: xiii). In the Gulf War, global telecommunications, changes to broadcast technology and a changing relationship between the media and the military allowed for a previously unknown immediacy of the coverage reaching audiences worldwide, with the caveat that all stories were reviewed and approved by military officials (Griffin, 2010: 26). The narrative

was effectively controlled through the management of the media content on the ground and the mechanisms of distributing the content.

Shanto lyengar and Adam Simon note in their analysis of these reports that there was a large audience engaged with this coverage and that "television news viewing [...] surged during this period" (1994: 167). The domination of a single US cable news network in the reporting of the early stages of the Gulf War prompted the phrase "the CNN Effect" to describe the ubiquity of the information flow (Freedman, 2000; Robinson 2009), while Philip M. Taylor describes BBC news programmes as having dominated UK viewing figures in the first week of the conflict (1991: xi). In each example, the changing nature of the reportage drew large audiences in the countries of the Coalition partners, but only a few sources of reportage were available globally and these were dominated by the Coalition media's cultural hegemony.

Reporters from US news networks ABC, CBS and CNN had all charted the buildup to war in detail and, although all of these networks noted the increased aircraft activity from air bases in the Middle East on the night of 16 January 1991, ABC reported the outbreak of war (Taylor, 1992: 91) by cutting to their reporter Gary Shepard in Baghdad on World News Tonight, scooping the US cable news channel CNN by two minutes and the official confirmation of operations by the US military which followed shortly afterwards. Shepard described tracer fire and the sound of air raid sirens (Jennings, 1991) in conversation with news anchor Peter Jennings. Although these actual sounds cannot be heard, this early interjection of the sounds of war draws attention to their significance, Shepard's articulation of his closeness to the front line and the immediacy of the events occurring around

Page 77

him – indicated by his ability to hear military activity – forming a significant part of his reportage, and a theme which is repeatedly returned to in broadcasts from embedded reporters.

The following day, a number of reporters offered live coverage from the phones of

the Al-Rasheed Hotel in Baghdad itself, although these early reports by the major

networks soon ended as communication with the city was cut off following a

Coalition air strike. CNN benefitted from a protected communications system

rented from the Iraqi government and subsequently came to dominate on-the-

ground coverage of the war following this air strike. CNN's Peter Arnett, John

Holliman and Bernard Shaw were able to continue to report live in an extended TV

newscast on 17 January (Kellner, 1992: 112), with other networks – including the

BBC and ITN in the UK, and major news networks worldwide - carrying the CNN

feed (Taylor, 1992: 32, 87). Over the hotel's telephone lines, and for close to 17

hours, the three men described the arrival of the Coalition forces' planes.

Bernard Shaw: 'Let's describe to our viewers what we're seeing. The skies over Baghdad have been illuminated; we're seeing bright flashes going off all over the sky. Peter?' Peter Arnett: 'Well there's anti-aircraft gunfire going into the sky. We hear the sound of planes. They're coming over our hotel, however we have not yet heard the sound of bombs landing but there's tremendous lightning in the sky' (Arnett, Holliman and Shaw, 1991a)

In this instance, the audio of explosions could be heard over the line, with the reporters describing the delivery of precision-guided munitions and cruise missiles, commenting on the specific buildings targeted, and the response by Iraqi forces of anti-aircraft fire and the launch of surface-to-air missiles (SAM). Many of these sounds could be heard as the men were speaking, and the reporters frequently paused as bombs were heard striking in the background. In some instances, John

Holliman placed his microphone out of the window, and Peter Arnett articulated

the differences between anti-aircraft fire and the sound of bombs exploding, before Shaw identified Coalition planes flying overhead. As they commentated on the origins of the sound, they contextualised each explosion in order to give meaning to their soundtrack for the audience (Arnett, Holliman and Shaw, 2013). This technique echoes radio coverage of earlier conflicts from reporters such as Edward R. Murrows, whose live reports for CBS evoked the experience of the Blitz on London during the Second World War (Seib, 2006). Despite the blanket coverage across US television news, these reports lacked visual accompaniment and so the sound of warfare was privileged over visuals – where explosions and Iraqi anti-aircraft gunfire were the only audible cues to their location as the reporters described what they were seeing. Jaramillo notes that in the absence of images, "sonic traces verified the existence of [...] explosions" that had not been caught on camera (2009: 159).

As in the Falklands Conflict, sound was privileged over image where audiences were again without accompanying syncretic visual stimuli in the form of moving images. The reporters' descriptions were instead accompanied by still photographs of Arnett, Holliman and Shaw reporting from the region, overlaid with maps and mock-ups of Baghdad and the wider region which offered diagrammatic information related to the incoming reportage. Nevertheless, the effect of these broadcasts was powerful, with the tension of news anchors such as ABC's Tom Brokaw and CNN's David French clear as they spoke live to the reporters, who took turns to address the anchor back in the studio (Arnett, Holliman and Shaw, 1991a). The phrase the 'CNN Effect' was coined during this period, highlighting the power of these real-time broadcasts to provoke a reaction, compounded by what Lawrence Freedman has described as the "ubiquity of the channel (so that all

sides were using the same information source)" (2000: 339). These early reports from the conflict signify the formation of the key characteristics of the emergent *Gulf War Aesthetic* – immediacy and authenticity articulated from a subjective 'I was there' position.

The unfolding drama in Iraq was reported in real time, with the reporters detailing how the attacks were impacting upon their own transmission equipment and their radio and TV broadcasts, in addition to the blackouts in the city. In one instance, Holliman asks camera operator Mark Biello what he could see through his viewfinder, offering the promise of visual imagery to follow as soon as the crew were able to provide it (in Arnett, Holliman and Shaw, 1991b). The three reporters spoke over the studio-based news anchors and, in one conversation, Arnett even signed off in order to answer the door:

Shaw: 'We've got to run, Somebody's knocking on the door. John and I are going to hide. Peter.' Arnett: 'This is Peter Arnett signing off for a minute and I'll see what the action is outside' (in Taylor, 1991: 95).

Unlike the broadcasts of 17 January 1991, these were censored, and each of Arnett's transmissions carried a disclaimer that they were subject to Iraqi censorship. Notably, such disclaimers failed to accompany broadcasts from other reporters stationed in Iraq – all of whom were subject to censorship, although in these instances by US rather than Iraqi officials. It was not until 30 January, via an INMARSAT satellite telephone link, that CNN was able to provide live visual transmissions from Baghdad (Taylor, 1992: 124-125). Instead, the majority of TV reports with live imagery came far from the front line; reports originating primarily from Tehran, Tel Aviv and Riyadh, many of which were supplemented by footage of aircraft launches provided by the military. All of these locations were under the threat of distant attack by Scud missile, and Kellner suggests that the decision by ABC foreign affairs correspondent Barrie Dunsmore to report in a chemical weapons protection suit after an air raid siren in Riyadh formed one of the most compelling narratives of the war in regard to the risk their correspondents on the ground were taking to report from the conflict.

As an example of this immediacy and suspense of reporting during the CNN coverage of 17 January 1991, reporter Charles Jaco was cut off during his broadcast from Dhahran in Saudi Arabia during an air raid, describing planes overhead before the feed cut to static, leaving the studio news anchor to reassure viewers that Jaco had left for a bomb shelter (Jaco, 1991). In a broadcast later that evening, Jaco described how he and his crew had been instructed to leave the camera platform to put on gas masks and retreat to a basement shelter but that the event had been a false alarm by the Saudi Directorate of Civil Defense (Alyankovich, 1991). In each of these examples, sound is imperative to the impact of the broadcasts, with the audio from these frequent air raid sirens accompanying many reports broadcast from 17 January 1991, and the reporters' live broadcasts sizzling with the immediacy of an imminent attack. This mode of representing war was made possible by the convergence of emergent digital technologies such as lighter broadcast equipment and satellite communication within a culture of the now-dominant embedded reportage.

The lengthy air war dominated the early news agenda in reports from air bases and footage from Coalition warships situated in the Persian Gulf. Footage came primarily from air bases in Saudi Arabia, and focused primarily on the deployment of the F-117A stealth bomber, together with cruise missile launches from US naval shipping including the USS San Jacinto, which fired the first Tomahawk cruise missile salvo on 17 January 1991, and from the USS Missouri the following day. In briefings, often reported live and uninterrupted by the US networks, the Coalition military presented footage from precision-guided munitions and gunnery cameras.

Daniel C. Hallin and Todd Gitlin argue that the use of these new military technologies extended the coverage of the Gulf War from that of ordinary TV news, and noted that footage representing these technologies was often presented as being beautiful and cinematic – noting that one of the "more common images was that of the fighter-bomber taking off or landing at sunrise or sunset" (in Bennett and Paletz, 1994: 161). Unlike Anderegg's critique of incoherent representations of Vietnam through individual reporters offering a range of reportage and a variety of responses by news media, documentary and feature film, the Gulf War is striking in that it offers a coherent and unique aesthetic quite different to those of the conflicts that preceded it. The monopoly of CNN in its syndication of its coverage to global news networks and the reliance of these broadcasts on sound in the early stages of the conflict, the deployment of pooled reporters and use of footage released to the military, coupled with the limited geography of the desert campaign, provided a combination of parameters that defines the *Gulf War Aesthetic*.

Cinema, Iconography and Myth

Commonly presented by the military outside the context of larger battles, the stream of images from missile cameras and targeting systems that emerged throughout the first Gulf War air campaign had the effect of homogenising the events taking place within the war to the point where each event became indistinguishable from the others. This lack of context was accentuated by the daily news briefings that reiterated and repeated broader strategic goals rather than offering an analysis of the specific visual events being presented. Instead, reportage from embedded journalists situated far from the action itself, as Kellner observes, made use of "the codes of the war movie, Western, action/adventure and miniseries to present the war as a dramatic conflict" (1992: 114). This homogenisation is central to what I define as the *Gulf War Aesthetic* broadly reiterated in the first cycle of films to follow the conflict, which will be explored more thoroughly in Chapter Two and also in the examination of *The Hurt Locker* in Chapter Three, which positions its central character as a cowboy archetype and whose composers drew upon their experience of scoring the remake of classic Western *3:10 To Yuma* (Mangold, 2007) in their work on the score.

Tom Engelhardt indicates the framing of what news footage did arrive from the theatre of conflict during the Gulf War as not being dissimilar to the framing of Hollywood cinema, in terms of its marketing, where teaser footage would introduce each bulletin, to the elaborate special effects which accompanied them – an aesthetic spectacle that divorced the conflict entirely from the context of the events that led up to, or occurred within, the war (1994: 84). Jarmillo argues that this sense of spectacle had parallels with the high-concept notion that determined action cinema produced by Hollywood during the 1980s. These stories simplify and distil ideals, which further served to unify and homogenise the narrative of this particular conflict (2009). In discussing Douglas Kellner's extension of Guy Debord's notion of spectacle with what he has described as a "political spectacle", Henry Giroux argues that the repetition of sensational footage from theatres of conflict "drain from such event any viable ethical or political substance" (2006: 36). This notion is echoed in the feature film narratives of the conflict, which return to

personalising the experience of the conflict from the perspective of the protagonists rather than making a broader comment on the cases for or against war, or the considerable political impact in those countries prosecuting the war, or in Iraq.

In their quantitative analysis of a number of news broadcasts from the Gulf War, Hallin and Gitlin observe two major themes of the coverage. They describe these as representing individuals in the war as engaged in a ritual that created and celebrated solidarity (Hallin and Gitlin, 1994: 152). They note that the stories presented by the media served to mythologise events, and focused on "American prowess" (1994: 154), observing that the coverage most often adopted the point of view of the soldiers, and emphasised the "skill and sense of purpose" of US combatants or the technological superiority of weaponry such as the Patriot Missile system or the aforementioned Stealth aircraft (1994: 154-161). Taylor acknowledges that, despite the range of news organisations in the Gulf, these organisations were "essentially dependent upon the Coalition military for their principal source of information about the progress of the war" (1991: 268), and implies that this served to homogenise both the narrative reported from the conflict, and its aesthetic. Despite the immediacy, news footage was driven by military spectacle, and it was through this that the conventions of the Gulf War Aesthetic became fixed in the public imagination.

Of course, each theatre of conflict has its own unique mise-en-scene, with war iconography extending from the landscape of the trenches in World War One to the paddy fields of the Vietnam War and the deserts of Iraq and Kuwait in the Gulf and Iraq Wars. Costume and language further concretise this iconography, where each major conflict presents a distinct and instantly recognisable enemy, whether that takes the form of the jackboots of the Nazi, the black cotton clothing of the Vietcong or the robes of the Taliban. Similarly, continuing technological development of machines of war and the manner with which each war has been fought carries connotations of both period and theatre; the man-o-war, tank, helicopter, jump jet, stealth bomber, cruise missile, pickup truck and Improvised Explosive Device (IED) all serve as signifiers of very different conflicts.

In the Gulf War and Iraq War, however, a number of these developments in military hardware converged with technological change to impact modes of storytelling, rather than acting as singular signifiers of the conflict itself. The advent of night vision cameras, remotely operated drone technology, and laser and satellite guided munitions created a distinct visual and sonic quality to the *Gulf War Aesthetic*.

Fictionalising the Reality of the Gulf War

In their analysis of the media representation of the air campaign and land assault of the Gulf War, Martin Shaw and Roy Carr-Hill note that the violence of conflict was effectively "screened out" by the news media who, they suggest, worked to "minimize the violence of the war," with little footage of those killed or injured by the assaults shown in news reportage. Instead, the "campaign was systematically presented as an attack on things – weapons, transporters, bridges, buildings – but not on people" (in Mowlana et al, 1992: 145-153). They cite Anthony Giddens, who identifies that this coverage was predicated on "the dislocation of social realities from given temporal and spatial contexts" (in Mowlana et al, 1992: 145-153). Taylor observes that the focus by the news media on air power had important consequences. The aftermath or effects of the projection of Coalition air power was difficult to evaluate by the news media, creating an effect not dissimilar to Hollywood's representation of violence in cinematic representations of war, in that it is frequently for spectacle and often free of consequences, amplifying the distance between the public and those on the ground (1991: 275-276) and this was echoed in the first cycle of films which represented the conflict.

Brogan argues that the difficulty in representing this specific conflict was historical: "The media's indifference toward developing an understanding in military affairs during the 1970s and 1980s led to a wholesale ignorance that became apparent during the Gulf War" (in Aukofer and Lawrence, 1995). He argues that the news media was wholly unprepared for forms of military tactics and battlefield equipment that had emerged since Vietnam, while the volunteer professional army of the Coalition was quite different to the conscripted forces who had fought in World War Two, Korea and Vietnam.

An example of this difficulty in reporting conflict occurred with regard to the speed of the land battle in the Gulf War's Operation Desert Sword, later designated Desert Sabre, which launched on 23 February and completed on 27 February 1991. The Iraqi troops offered little resistance, which limited the news media's opportunity to cover the conflict in any depth, as the battle ended so quickly, effectively offering little to report. Susan Hayward identifies classic narrative cinema as a place where "space and time are coherently represented in order to achieve the 'reality effect'" (2000: 343), and this effect was also sought by the news media, but in western news coverage of much of the first Gulf War, this reality effect was inverted. Battles and other major moments were incoherently represented, divorced from their original context and ultimately became devoid of meaning, and narrative inferences were difficult for the audience to perceive.

This obfuscation of meaning amongst a barrage of information and images from television prompted Jean Baudrillard to argue that the first Gulf War had been buried "behind that other form of sepulchre, the chattering television screens" (1991: 63). He suggested that the real-time nature of the coverage, coupled with the empty nature of the images and lack of contextual commentary, effectively functioned as "a medium without a message" (1991: 63). The war, he suggests, was subsequently a virtual conflict, played out through information technology and reconstructed environments indistinguishable from simulations. He argues that this "absence of images" caused a steam of "pure, useless, instantaneous television" (1995: 30-31) that amounted to "a masquerade of information" (1995: 40). Ultimately, and most controversially, he argues that "The Gulf War did not take place" at all (1995: 61). Despite all of the sources of information and the distinct aesthetic enabled by new technologies, the reporting of the Gulf War was not entirely distinct from that of previous conflicts in that its definitive battles were unseen or even unreported. What was left for audiences to digest was empty, generic images - of missile cameras which blanked on impact, of reporters cutting to static in times of danger, or of cruise missiles fired from ships in the Gulf at an unseen target. Often there were no images at all, but rather a spoken description of what reporters on the ground were seeing and hearing in real time accompanied by a still image. Ironically, considering the range of sources available to the networks, not that far removed in its presentation from Edward R. Murrow's broadcasts for CBS from London during the Second World War.

The result was that sound became a crucial component in the communication of a complex conflict, making some sense of fragmented images from hitherto unseen viewpoints that offered few geographical, spatial or speed markers. This significance of sound extends into feature films, and is evident in the first cycle of films representing the Gulf War, as I will detail later in this chapter. Time and space were collapsed by the nature of the subjective, individualised reportage of a conflict that ended quickly. The impact on the global television audience was a limited and sensationalised picture of what had occurred, characterised by image and sound events unique to the conflict – the *Gulf War Aesthetic*. Howard Tumber and Jerry Palmer note that, even ten years after the first Gulf War, the US press still "overwhelmingly concentrated on official or ex-official sources, and on the already-emerging policy option of regime change in Iraq" (2004: 5) and note the Pentagon's tacit acknowledgement that reportage from embedded journalists "would play a crucial role in the pending [second Gulf War] war to remove [Saddam] Hussein from power" (2004: 15).

In fictional representations of the Gulf War, Geoffrey A. Wright notes a distinction between news footage where "the literature and film on the war emphasize the human rather than the technological dimension of the fighting" (2009: 1677). Although the aesthetic mirrored that of the embedded reportage, the narratives of films such as *Courage Under Fire*, *Three Kings* and *Jarhead* focused on "deeply personal experiences [that] are anchored to the landscape" (2009: 1677). He argues that the desert battlefields become a character in all three films and are more evident as a signifier of the war than the enemy, and that the subjective experience of the deserts of Iraq makes for a more reliable memory than any reported 'truth' or history of the Gulf War from journalism or historical sources. As in the later cycle of films centered around the Vietnam War, each of these films focuses on the individual and subjective experience, challenging of a single unified truth of the conflict and positioning of a hostile landscape as the enemy. This challenging of truth within the film was made more explicit by the director David O. Russell in 2004, when he released a short documentary, *Soldiers Pay*, broadcast by the Independent Film Channel at the time of the re-release of *Three Kings* (Snipes, 2004). This film's release coincided with the protracted conflict and insurgency that had followed the invasion of Iraq in 2003. The film presents a series of interviews with US military personnel, academics, journalists and Iraqis who had played extras in *Three Kings*, and details the experiences of those involved in both the Gulf War and Iraq War, including troops' equipment shortages in the Gulf War, the financing of Iraqi forces in the conflict and the deployment of security contractors from private military companies (PMC) such as Blackwater USA.

In *Courage Under Fire*, the first Hollywood feature to tackle the Gulf War, the narrative centres around differing accounts of a friendly fire incident resulting in the death of helicopter pilot Captain Karen Walden. Told in flashback as an investigator attempts to reach the truth of the events leading to the incident, each of those involved offers a differing account of the death of Walden, demonstrating the confusing nature of combat, with the different memories of the incident serving as a metaphor that undermines the notion of a single historical truth or, as Trevor McCrisken and Andrew Pepper argue, works to "unsettle particular established or consensual views about the inherent 'righteousness' of US military actions" (2005: 188).

In Three Kings, a film centred around a heist narrative as a small group of US Special Forces search for gold bullion stolen from Kuwait by Iraqi forces, Geoffrey A. Wright again observes the significance of the landscape over and above the enemy. In the film's opening shot, the desert dominates the screen, as US troops attempt to connect a treasure map to the difficult-to-distinguish land markers in front of them. In the absence of visual, geographical cues, sound becomes privileged and foregrounded in the scene. Simplistically, sound serves as an indicator of enemy activity or danger, but its deployment is more complex in sound design and Foley sound as the characters navigate these blank spaces with sound effects and ambiences emanating from the environment and presenting the desert itself as a character – and more significantly, as an enemy to the US soldiers in and of itself. As in Courage Under Fire, metaphor provides further complexity to the narrative, with the troops' bewilderment as to their purpose within Iraq compounded by the moral ambiguity surrounding the men's theft of the gold, which drives the film rather than a more traditional story of the engagement and defeat of an identifiable military enemy.

Jarhead is based upon a Gulf War memoir by Anthony Swofford, a Scout Sniper within a US Marine Surveillance and Target Acquisition (STA) platoon. As Leslie Felperin notes in *Sight & Sound*, the movie is unable to follow the track of the conventional war film through action sequences documenting a conflict which "reflects the relatively small number of casualties suffered by US troops during Operation Desert Storm, a loss of less than 500 souls by most reckonings, only 147 of whom were killed in battle" (2006). She argues that this challenge to genre conventions by real-world events in the conflict may have driven the lack of engagement by Hollywood in representing the Gulf War beyond *Courage Under Fire*, *Three Kings* and *Jarhead*.

Each of these three films presents the characteristics of a recognisable *Gulf War* Aesthetic. Each shares the absence of an identifiable enemy and each privileges the impact of the landscape on individuals operating within small specialist groups of US forces. Yi-fi Tuan argues that this "topophilia" or "affective bond between people and a place" is a two-way connection which links humans to their environment and is critical in communicating subjectivity (1990: 4). In each narrative, the focus is on the significance of the subjective experience of the protagonists. With the war not perceived to be necessary or even challenging by the characters within these narratives, the gaze turns inwards on their own experience and, as James Hoberman notes, the men involved "attempt to fathom the war's purpose" (2002). In each of these films, the use of sound to indicate a depersonalised, technologised, anonymous, off-screen threat is central to what I define as the Gulf War Aesthetic. This is in part due to the lack of more traditional action sequences centred around soldiers fighting their environment, each other, IEDs or the threat of WMD rather than being engaged in conventional battles with a distinct enemy. Arguably it is sound that is best able to express the complexities of the conflict, as the indistinct threats that sound represents serve as a metaphor for the indistinct nature of the enemy - both within the context of the film and within the public imagination in relation to the conflict.

These traits that I have identified as culminating in a discernible *Gulf War Aesthetic* also anticipate the events of the Iraq War, as Wright has similarly argued (2009: 1688). I will demonstrate how the different nature of the later conflict

Page 91

allowed filmmakers to further develop their response to the complexities of asymmetrical warfare when the US-led Coalition forces invaded Iraq in 2003.

The Iraq War (2003-2011)

The Iraq War began on 20 March 2003 when a US-led coalition, which included forces from the UK, Poland and Australia, began Operation Iragi Freedom, launched an air strike on Baghdad. This was followed by an invasion of coalition ground forces the following day. Deborah Jaramillo observes that in one report for Sky News the news presenters in the studio "sat silently for ten minutes during the bombings" of what the US military described as the 'shock and awe' air campaign (2009: 160). Lille Chouliaraki observes that the event was paradoxical in that "it was the most transparent war footage ever, but at the same time it was also condemned as the most manipulative" in that the "aestheticization of suffering manages simultaneously to preserve an aura of objectivity and impartiality" (2006: 261-62). Unlike at the beginning of the Gulf War, image accompanied sound as reporters documented the beginning of the campaign. These images, shown in long shot and broadcast in real time, were denied the importance of additional commentary or context, with news organisations allowing the power of the sound and image at the outbreak of the conflict to become the entire message. As the Gulf War had been represented through embedded reportage and footage sanctioned by the military, the Iraq War was initially managed in the same way, and the war appeared to end as quickly when US President George W. Bush landed on the aircraft carrier USS Abraham Lincoln off the coast of California on 1 May 2003 to make an announcement. Bush's speech, delivered later the same day from the deck of the ship in an echo of the high-concept action film reportage that characterised the Gulf War, announced that "Major combat operations in Iraq

have ended. In the battle of Iraq, the United States and our allies have prevailed" (in Murphy, 2003).

In part, new technologies provided the catalyst for the development of the original Gulf War Aesthetic, and this affected mainstream news media as well as emergent amateur reportage. The supplementation of reports with live press announcements and briefings, often intercut from live images drawn from cameras fixed to hotels or other structures, created a mélange of information. The sense of these reports being made in real time was assisted by the use of emergent media technologies, such as remote and Web cameras, in addition to the ability to broadcast live via satellite phone rather than by more traditional Outside Broadcast trucks and their associated crew. Discussing the impact that these technological changes had on journalists' equipment, particularly in the ability of a single reporter to shoot and record without further technicians, and thus had on the aesthetics of the Iraq War. David A. Cook notes that the ability of the reporter to broadcast live from the heart of the action added to a sense of closeness to action and authenticity for the television audience (2002). Tumber and Palmer describe how MSNBC journalist Preston Menden-Hall was equipped with a satellite phone and computers, to become what was known as a 'backpack' journalist:

They file real-time reports with equipment that is a fraction of the cost and size of conventional [...] cameras and other gear. They file primarily to the web, with images they've edited themselves at the scene and occasionally contribute to television. (2004: 23)

This live or 'nearly live' ability is described by ABC's Don Dahler as having "made a quantum leap in our ability to conduct journalism" (in Harmon, 2003). Amy Harmon acknowledges through a citation from Orville Schelle that although this provided a "more intimate and multifaceted view of the war in Iraq" – as in the reporting of the Gulf War – these reports provide "a lot of communication and not necessarily that much information" (2003). Briefings to the press were again delivered daily by the Coalition forces, this time from a purpose-built facility situated in the Coalition's Central Command Camp at Sayliyah in Qatar. Phillip Hammond notes that the 'set' from which General Tommy Franks briefed the press was designed by art director George Allison, better known for his work on US television shows *Power of 10* (2007) and *Ebert Presents: At The Movies* (2010), further blurring the delineation between staged and actual events, and between an objective news media and entertainment (2011: 7). Indeed, Timothy Murray makes links between action cinema and some of the imagery screened in these briefings, noting a dichotomy where the visual images' tendency towards abstraction led to a cinematic pleasure drawn from not having to "think about anything, to forget suffering even when it is shown" (2000: 114).

The reporting from Baghdad was initially not dissimilar to that of the Gulf War. Tumber and Palmer note in their analysis of the widely reported toppling of a statue of Saddam Hussein on 9 April 2003 that the statue was located in a square outside the Palestine Hotel "used by Western journalists as a base, and it was filmed using cameras in the hotel" (2004: 110), echoing the broadcast from the Al-Rasheed Hotel by the CNN crew at the beginning of the Gulf War. A static camera captures a crowd of Iraqi civilians initially hitting the base of the statue in Baghdad's Firdos Square with a sledgehammer. The arrival of members of a US Marine Corp tank battalion, who apply a towline to the statue, is greeted with applause by a crowd of Iraqi civilians who whistle, cheer and applaud as the statue is pulled from its base by a US military vehicle before it is pelted with rocks and shoes by the crowd (Hijazna, 2010). Tumber and Palmer argue that the manner in which the footage is shot "frames it in a way that strengthens the symbolism" (2004: 110), with the cheers of the jubilant crowd implying support for the invasion.

Kellner identifies that reportage from the Iraq War differed most radically from that of the Gulf War in its range, with over 20 networks broadcasting from Baghdad at the outbreak of the war and offering a number of different views on the conflict, in sharp contrast to CNN's dominance of conflict coverage in 1991 (2005: 64). The presence of Arabic-language broadcasters such as Al Jazeera increased the available imagery and narrative and, as Philip Seib argues, this movement towards a greater diversity challenged the western hegemony, which had previously been broadly supportive of US policy (2005: 601).

Widely read online journals, such as *Where is Raed*? written by the Baghdadbased blogger Salam Abdulmunem under the pseudonym Salam Pax, were syndicated by the press. Sections from the blog were initially reprinted by the *Guardian* as *The Baghdad Blog*, published as a book of the same name in 2003 and broadcast in a number of Royal Television Society Award-winning reports as part of BBC's current affairs programme *Newsnight* in 2005 (Pax, 2003a, 2003b). Abdulmunem's voice was presented as more authentic than that of the embedded western reporters, and framed by the programme as able to offer insight from citizens on the ground. Shot on a shaky consumer camera, poorly white-balanced and with variable sound quality, these Salam Pax reports appear domestic and recreate his initial blog reports, as Abdulmunem himself films his family and typing of the blog. The presentation of this kind of footage on a flagship news programme privileged the amateur over the professional, and this development of the *Gulf War Aesthetic* – the broadcasting of shaky, hand-held amateur footage captured by an individual positioned as 'authentic' and personally experiencing the conflict to large audiences – would play an increasingly important role in attempts by mainstream news organisations to cover the conflict.

In addition to these sources, still condoned and collated by traditional broadcasters, the news agenda as the invasion turned to insurgency in the second half of 2003 and its documentation came to be dominated by amateur footage and sound shot through cell phone and combatant-originated footage from helmet and vehicle-mounted cameras. This material was subsequently uploaded to and distributed by YouTube and other Web platforms by both Coalition troops on the ground and the enemy combatants they were engaging in Iraq. A number of websites – including realmilitaryvideos.com and Apache Clips, and YouTube channels such as Funker530 – have since curated and collected these clips by location or service personnel (RealFlix Media, 2007; AFiveBThree, 2010; Apache Clips, 2012; Funker530, 2016).

Using a three-minute sequence of US Marines under attack in Al Zaidon, an area south of Fallujah in Iraq, as an example, peripheral sound dominates the soundtrack in the initial seconds of the clip with wind noise, footsteps and the rustle of the soldiers' equipment foregrounded. The images, which appear to be filmed from a helmet camera, are blurred and follow the head movements of the soldier recording the incident. Dialogue is indistinct, and only clear where the camera operator is close to the microphone. As the Marines come under fire, apparently ambushed by rocket attack and taken by surprise, the camera dips as the soldier seeks cover. The sound of the Marines' return fire is foregrounded during the engagement. The loud mid-range crackle of the US forces' rifles,

countered by a high-pitched crackle of enemy gunfire from some distance is punctuated by the low-pitched boom of incoming mortar fire. The sequence is confusing, and although the troops shout at each other, this is entirely secondary to the Marines' gunfire and the boom of mortar fire as it echoes across a valley. There is no clear narrative to the sequence, other than the spectacle of US troops coming under fire, there is no commentary and the sequence finishes abruptly (AFiveBThree, 2010a).

In a second sequence from the same user, a US Marine attack on Ramadi, a city in central Iraq, is filmed. Appearing to use a helmet-mounted camera, the camera operator films his colleague preparing to fire a rocket launcher. Shots are heard in the distance, but the soldier continues to film his colleagues rather than turning to the source of the gunfire. As the weapon is fired, the camera points to the sky. No enemy troops are shown throughout the three-minute engagement, despite the filming soldier turning to indicate the impact of the rocket and his own returning of fire from his rifle (AFiveBThree, 2010b). This type of footage demonstrates a shift in both aural aesthetics and visual storytelling, where the authenticity of the action takes priority over visually representing the cause and effect of the engagement.

Improvised Explosive Devices (IED) feature prominently in these sequences, with a number of films shot from vehicles showing the otherwise mundanity of convoy driving disrupted by an explosion. Again, the spectacle appears to be the sole reason for filming and uploading these short films, with no context for the attacks and little footage before or after the explosion to frame the event. In the majority of these explosions, physics delineates the footage from expectations formed by cinematic genre conventions – where the sound of the blast commonly reaches the microphone milliseconds after the light from the same event. In these explosions, the sound comes much later than the light and shockwave from the explosion itself – this sound is jarring as it is not in time with the image, unlike more familiar presentations of conflict in film where sound and image are typically syncretic in narrative feature films. In films adhering to this advanced or more sophisticated *Gulf War Aesthetic,* this kind of 'real-life' footage is directly emulated in sound design and cinematography.

These short clips, often less than five minutes in length, are commonly presented unedited, and often filmed on the move or from cover. The films are characterised by indistinct, distorted or unclear cinematography where it is unclear where incoming gunfire is coming from, or how the protagonists are responding. Sound becomes privileged over the image, yet this sound is reliant on poor quality camera-mounted microphones, omnidirectional and prone to distortion. Despite the array of images through a variety of mediation, the combatant is the principal figure rather than the reporter, and the lack of coherence comes from the multitude of conflicting sources. Local, visceral and lacking in context, the combatant-originated footage offers one of multiple strands of coverage coming from Iraq, distinct from the higher quality audio and visuals of the traditional staged reports from larger network crews and also from embedded backpack journalists, who, although often alone, carry professional-format cameras and recording equipment and work within broadcast standards (Konrad, 2003).

If the first Gulf War was mediated by television, as Kellner suggests, Garrett Stewart distinguishes these TV wars from the occupation of Iraq in 2003 and the following insurgency which he describes as "a video and laptop war," filmed, edited and distributed by the combatants themselves and supplementing the images provided by the military to news organisations from gunnery cameras and drone footage and through embedded reportage (2009: 47). In 2014, Vice News reporter Medyan Daireh turned the notion of embedded reportage on its head, spending three weeks embedded with ISIS in Iraq to make his five-part documentary *The Islamic State* (2014). This commission is described by Kevin Sutcliffe, Head of News Programming at Vice, as an attempt to report from inside the story rather than "reporting from outside living off YouTube clips" (in Calderone, 2014).

Garrett Stewart argues that rather than ideology it is aesthetic choices that have impacted on the narrative of Iraq War films. The films he examines exploit the visual and aural characteristics of what I define as an advanced Gulf War Aesthetic and, as a result, the Iraq War films he examines are impeded in their ability to communicate a coherent message. As in the first-person footage uploaded to YouTube discussed above, they offer a narrative that is partial, subjective and lacking in context. He argues that in the fictional representations of the Iraq War between 2006-2008, a gritty aesthetic of unclear visuals and distorted audio reflecting this multitude of transmedia sources, stood in "[for] the true grittiness of the mission" (2009: 47). The subjective positioning of protagonists, hampered by their restricted understanding of the narrative, sits in opposition to the omniscient view presented by the camera. In Green Zone, this presents a problem where the lead character is depicted searching for weapons which the audience know not to be present in a conflict predicated on the presence of such weapons. With such knowledge foregrounded, Stewart argues that any Iraq War film hoping to take an anti-war position is undermined, in that "anything

approaching to oppositional cinema in a realist combat mode risks being thwarted by the requisite authenticities of its own visualization" (2009: 47). Coverage of the Irag War is reductive of the history being presented.

While the original *Gulf War Aesthetic* was largely mediated by the experience of combatants through the eyes of embedded reporters, the Iraq War offered an experiential or personal sense of the war from the combatants themselves. Despite initial similarities with reporting of the Gulf War, the management of the coverage was less successful, as the conflict was prosecuted with other streams of media able to fill the vacuum left by the embedded reportage and militarysanctioned footage broadcast by mainstream news organisations. In contrast, the Iraq War was mediated in a myriad of different ways beyond military-sanctioned material and embedded reportage under military sanction. Emergent imaging and recording technology such as cheap consumer mobile phones and cameras coupled with new Internet distribution platforms have allowed an array of voices to contribute their perspective on the conflict. These voices have included professional combatants, NGOs and other agencies operating in the region together with bystanders speaking in their own, unadulterated voices. Coupled with new modes of distribution, sharing through social media and latterly live streaming, this lent a liveness and actuality to events being reported either as they occurred, or shortly afterwards.

This range of material from so many disparate sources – mainstream and nonmainstream sources, sanctioned by the military or issued by combatants from all sides with and without military approval – is effectively distended from history, divorced from local events and often from any other context than soldiering itself. In the Gulf War of 1991, the Coalition military provided footage to the news media from Predator drones, laser-guided munitions and even the headsets of the soldiers and pilots themselves. In the Iraq War, this abundance of footage became a secondary and often oppositional source of information to that provided by global news organisations. Instead, the authenticity of YouTube clips effectively undid the scripted events that distinguished Baudrillard's virtual war (1995). This, together with the increased use of domestic technologies by war correspondents, further compressed the perceptual difference between professional and amateur or personal, and closed the sense of distance from reported events, both figuratively and aesthetically, but offered little in the way of context for the events being seen and heard.

In some instances, well-documented events have been dramatised in feature films, extending upon the news media's telling of the story. Director Nick Broomfield's drama *Battle for Haditha* (2007) uses footage from Iraqi activist Thaer Thabet al-Hadithi, who filmed the aftermath of the Haditha massacre in 2005, in which US Marines killed 24 unarmed civilians as a reprisal for a roadside explosion that killed a US soldier, as a device to drive its narrative. In a fictional addition to the story, al-Hadithi's footage is replaced by a short film created by a fictional insurgent and leaked to a US magazine. This film within the film, or miseen-abyme, contains footage of the Marine's reprisal against the civilian occupants of a nearby neighbourhood, the subsequent funerals of those killed by the Marines and an interview with the survivors' families. David Hearst, then Middle East correspondent for the Guardian, comments that this digicam footage in the *Battle for Haditha* "is not only the witness to the insurgency, but one of its weapons," in that in the film, the insurgency footage is shown to be utilised by al-Qaeda as part of their wider recruitment strategy (2008). Hearst states that the film sits outside history, as both the war itself and the court prosecution against the Marines involved were ongoing at the time of release. The result, he argues, is that the film is neither entirely fiction, because it offers an account of true events, nor purely a dramatised documentary. J. David Slocum notes that this "simultaneity" of war films with the conflicts themselves presents a problem to filmmakers, in that although films made after combat operations have ceased and those made during combat operations both have integrity, "the putative reality of different levels of experience of the same war, themselves change over time" (2006: 13). These new technologies and modes of distribution presented a challenge to the *Gulf War Aesthetic*, and filmmakers have responded through subverting and advancing its characteristics in their increasingly sophisticated accounts of the Iraq War.

Space and Place

Broomfield, although primarily known as a documentary filmmaker, with over 30 films since making his feature debut with *Juvenile Liaison* in 1976, had previously directed the feature-length drama *Ghosts* (2006), a dramatisation of the drowning of migrant workers in the UK that occurred in 2004 (Oliver, 2004). The film makes use of a small crew, shooting with a hand-held HD camera and deploying non-actors, in the actual locations and shooting long takes in a style Broomfield terms "real cinema" (In Wood, 2008). Broomfield makes use of similar documentary filmmaking techniques in *Battle for Haditha*, with a small crew shooting a film populated with actors consisting of Iraqi citizens and ex-Marines, who improvise some of their dialogue.

Broomfield told an interviewer that this kind of feature film was made possible through technological developments that allow for shooting in real locations, making use of the techniques of documentary style that again allows for long takes, and where scenes were shot in sequence in order for performers to build their characters over the duration of the shooting period. He notes that previous studio films in Iraq had not featured Iraqi characters or their voices, and notes that he thinks "what cinema does – or can do – is stand back from the plethora of news reports and newspaper articles and give you a context in which to look at it" (In Dawson, 2008). Broomfield's statement is indicative of the desire of a number of filmmakers – including Bigelow and Greengrass – in this second cycle of Iraq War films to tell stories of the conflict through different ways, in both narrative terms and filmmaking form, and further advance the *Gulf War Aesthetic* through the development of an increasingly sophisticated film language.

In his analysis of *Battle for Haditha*, Garrett Stewart notes that in one scene the film makes use of an unusual point of view and point of audition where the camera takes a position under a bed. As though hiding from the US troops as the massacre takes place, the film offers no accompanying reverse shot or shot of a character taking that position. Stewart argues this this is "well beyond the preceding style of faux documentary, here is a devastating optical metaphor that pits reciprocally faceless cultures against each other over the unseen middle space" (2009: 55). This liminal point of view, occupied by a camera and microphone but not a character, is unusual but occurs in both *Green Zone* and *The Hurt Locker,* as I will detail in my textual analysis in Chapters Two and Three, and signifies a further development of the *Gulf War Aesthetic* as the Iraq War unfolded. Stewart's observation is that, despite the many modes of filmed

mediation of events in Iraq, ranging from military-sanctioned footage and embedded reportage and documentary to combatant and civilian content distributed through the Internet, narrative cinema is able to further extend upon this through its ability to present conflict from different points of view, through the use of multiple audio and visual positions.

The narratives of both *Green Zone* and *The Hurt Locker* directly echo many of the narrative conceits engendered by embedded reportage, with which audiences were familiar as reflecting the stage-managed images from a highly orchestrated military-media relations programme. In both case study films, the filmmakers offer little context to the conflict in which their small combat teams are operating. The cinematography is mobile, predominantly hand-held and centred on individuals. The sound design reflects the documentary techniques of the hand-held cinematography and uses extra-textual cues to signify the location – such as calls to prayer and the use of Arabic Walla (see Glossary) in crowd scenes. As in *Battle for Haditha*, both films have long sequences that play out 'as live' or in near real time.

In its development of the *Gulf War Aesthetic*, however, *The Hurt Locker* takes a step further with its presentation of additional visual and aural information – its sound design echoing the multiple positions of its five, and sometimes as many as ten, cameras, as city scenes and scenes in the desert make use of frequent cutaways, whip pans and crash zooms which move away from the central action within scenes as the team consider their environment. Unlike in *Green Zone*, the framing of the visuals and sound in *The Hurt Locker* builds upon, rather than restricts, the information available to the audience, drawing upon the subjectivity of

the central characters as they build up their sense of the wider geographical markers of the environment and the threats therein. In this, *The Hurt Locker* can be understood as the pinnacle of what is defined in this thesis as an advanced *Gulf War Aesthetic*.

Chikako Nagayama notes that "film space is not a simple reflection of socially produced space" (2009: 48). She identifies three components of spatiality in film: the "phenomenology of film space, spatial metaphors, and gaze-landscape interconnection" (2009: 48). She argues that these three factors are not independent components of film narrative, but rather interrelated systems of subject production in filmic representation. I argue that this combination of circumstances – the increasingly subjective nature of news footage from the Iraq War, from both professional and amateur sources, once coupled with the changing representation of war on screen mediated through footage distributed through the Internet by amateur filmmakers – directly challenges traditional cinema aesthetics. Furthermore, this challenge to traditional cinema aesthetics is exemplified in *The Hurt Locker*.

Conclusions

Nicholas Mirzoeff observes that the wealth of imagery from news channel coverage of the return to Iraq in 2003 by Coalition forces offers an "example of the visual subject, a person all but overwhelmed by visual material that they cannot control but cannot refuse to watch" (2005: 17). Mirzoeff argues that "more images were created to less effect than at any other period in human history but that this ultimately had become banal" (2005: 67). He identifies that the constructed presentation of this viewing, which makes use of rolling tickers, multiple camera feeds and reportage from both those on the ground and the embedded reporters, who often had little new information to report but were still required to offer a live account to viewers, created a sense "that this watching was present tense only" (2005: 27). In effect, the screen image and accompanying sound became increasingly crowded to compensate for voices that lacked meaning.

The aesthetic of a number of narrative feature films has been influenced by these changes in war reporting, particularly in terms of their sound design. In Chapter Two, I present an analysis of sequences from *Green Zone* (Greengrass, 2010) and in Chapter Three an analysis of sequences from *The Hurt Locker* (Bigelow, 2009), supported by interviews with those involved in these productions, that demonstrate how the aesthetic, and in particular sound, of these films has been shaped by changes in war reporting. I argue that both these feature filmmakers have integrated in their cinematic representations a visual and audio aesthetic drawn from documentary and news-gathering techniques which covered over five years of the Iraq War, but demonstrate in different ways the development of this into an advanced Gulf War Aesthetic. The aim of the filmmakers in blurring the line between reality and fiction was to better represent the reality of the Iraq War for US forces on the ground, while attempting to guestion the reasons for their deployment. I argue that the greatest impact of the application of these visual and aural codes to representations of war in cinema has been the manner with which immediacy and a sense of personal subjectivity have been privileged over more traditional modes of narrative storytelling in order to distinguish this second cycle of films set in the Iraq War from those that preceded them, and to maximise the impact of the stories being told on audiences who, as Mirzoeff argues, had

become apathetic or desensitised to the ongoing conflict, in part through the volume of footage available to them.

Chapter Two Imperial Life in the Emerald City: *Green Zone* as Production Study

I don't think [*Green Zone*] was entirely successful, if I'm honest, as a film. Well I would say this, I think for an hour and twenty, I think it was really, really successful. Then in the last act, the last twenty or thirty minutes perhaps, the film's ability to deliver in all of those three areas became muddy and a bit muddled. To me, looking back, I think it started to surrender to genre too much (Greengrass, 2016).

In this chapter, I make use of Green Zone (2010) as a case study to investigate the manner with which director Paul Greengrass has adapted and further developed the aural and visual components of the *Gulf War Aesthetic* in a \$100m budget, studio-funded narrative feature film. In the epigraph to this chapter, Greengrass articulates his feeling that the film conflated the genre of war film with the suspense or action thriller, in the manner with which it brought together the reasons for prosecuting the war, the conflict itself and its aftermath. He implies here that the film subsequently suffered not from conforming to the war film genre, but from the conventions of becoming *generic*, a label that Neale suggests can be received critically as "formulaic, stereotypical, artistically anonymous" (2000: 21), undermining the central tenets of the film. This chapter follows my examination of the changing media representations of conflict that followed the Gulf War in Chapter One, and the subsequent narrativisation of the conflict in film and television. In the previous chapter I identified an emergent Gulf War Aesthetic which developed in the years leading up to and during the Iraq War and provided examples in feature film and television news programming where the spaces and places occupied by the characters within the narrative had been privileged through a distinct visual and sonic aesthetic. In this chapter I examine the representation of the Iraq War in feature films and the development of the *Gulf War Aesthetic* since 2003 before examining the production culture of *Green Zone*, and finally

subjecting scenes from the film to a detailed intrasoundtrack textual analysis in order to determine how the *Gulf War Aesthetic* presents itself.

I have argued that the technological developments which accompanied the leadup to and prosecution of the Iraq War saw the furthering of the *Gulf War Aesthetic* through emergent forms of representation that resulted from easy access to small, Internet-enabled high-definition cameras and the emergence of video-sharing platforms. The launch of YouTube in 2005, as the conflict was taking place, enabled combatant-originated footage to be widely disseminated through being uploaded to the Internet without the interference of external editors or producers. In the previous chapter, I argued that an emergent aesthetic has been driven by filmmakers' attempt to attain a verisimilitude in their fiction that resonated with what audiences have seen and heard in transmedia storytelling outside of the cinema, such as through YouTube and news reportage.

In Chapter One I linked this shift in both the cinematography and the accompanying sound design of narrative filmmaking to a change in the aesthetic and immediacy of the reporting of the Iraq War of 2003 in the news media through techniques deployed via real-time reportage by journalists embedded with combat units. This change in news reporting was subsequently extended from embedded journalistic accounts of the conflict into what Laurent Jullier describes as the "run-and-gun" documentary (in van den Oever, 2014: 160). This technique is evident in a number of films which followed the Coalition invasion that began the Iraq War in 2003 and are typified by Mike Shiley's documentary *Inside Iraq: The Untold Stories* (2004), Deborah Scanton's *The War Tapes* (2006) and Kristian Fraga's *Severe Clear* (2009). Each of these feature-length documentaries presents a first-

person account of the experiences of US troops during Operation Iraqi Freedom. Mike Shiley, who describes himself as an adventure traveller, has no formal training in journalism and narrates his own experiences as he travels extensively in Iraq during 2003 visiting hospitals, colleges, US bases and sites of atrocities including the Amiriyah air raid shelter in which 400 civilians were killed in a US air strike (The Contemporary Issues Agency, 2005). Other than cutaways to talking head contributors, the film is predominantly comprised of hand-held footage as Shiley presents an account of those impacted by the invasion in a country which he feels is out of control. In an interview Shiley describes his desire to offer stories of those affected by the war, which he felt were rarely discussed in news footage focused on events rather than people (in Bussdriver, 2016).

In Scranton's film, the first commercially released documentary from the Iraq War to have been filmed by soldiers in the field, the narrative perspective comes from three members of the Army National Guard. The troops are equipped with cameras and document the move from their home base in New Hampshire to deployment in Iraq during 2004 and 2005. The film was edited from 800 hours of footage taken by ten volunteers from an infantry unit who were issued with highend consumer-grade cameras and trained in their use. Scranton chose this unit because they were due to be deployed to a base with Internet access, making it possible to direct the men via email and instant messaging over the course of their entire deployment. The men mounted the cameras on their body armour, vehicles and weapons, and the resulting footage is raw and often poorly framed but visceral. The final film is supplemented with a further 200 hours of interviews filmed by Scranton of the families of the soldiers at their base in New Hampshire. In an interview, Scranton explains that it was her intent for the soldiers to interpret the conflict themselves rather than the filmmaker imposing a narrative upon them while they were in the field (in Glaser, 2006).

Fraga's Severe Clear also primarily makes use of first-person footage captured on mini-DV by First Lieutenant Michael T. Scotti and his colleagues in the US Marine Corps as they prepare for the build-up to the Iraq War. The film charts his travel to the Gulf on the amphibious assault ship USS Boxer, the pre-invasion staging by Coalition forces on the Kuwaiti border and the invasion of Iraq itself in 2003 (Fujishima, 2010; Schleck 2010). The film stitches together its narrative from this footage, together with news reportage of the events discussed and a postproduction voiceover narration drawn from Scotti's letters home and his diary, later published as a memoir, The Blue Cascade: A Memoir of Life (Scotti, 2012). Scotti notes in an interview that part of his reasoning for recording over 60 hours of footage came from the combination of "the leaps in technology for the digital capturing of images, and a more technically savvy military, because these guys grew up playing video games and had camera cell phones" (in Macaulay, 2009). In the same interview. Scotti states that his role as an artillery officer serving as observer within his battalion placed him in a position to naturally capture action without impeding his responsibilities (In Macaulay, 2009). In the film, this verisimilitude is accentuated by sound as Scotti reacts to events around him, which are often heard through off-screen dialogue before he frames them with the camera. In one scene, Scotti is heard being called upon by his commanding officers regarding what he can see through the lens as he looks at enemy activity through the viewfinder of his camera.

James Longley's feature documentary Irag in Fragments (2006) focuses on the effects of the invasion on the daily lives of the citizens of Iraq. Filmed over two years from 2003, the film represents Irag from three different positions: that of an 11-year old boy who works in a car repair workshop in the Sheik Omar neighbourhood in Baghdad, Shiite followers of political leader Moktada al-Sadr and the Mahdi Army, and Kurdish villagers close to Arbil, the capital of Iraqi Kurdistan (Longley, 2006; Scott, 2006). Longley makes use of a single camera to film and record sound, with the subjective experience of the protagonists represented by their own voiceover narration (Laurier, 2006). Selmin Kara notes that the fragmentation of the state driving the narrative is also reflected in the form of the film. She describes this as an intermediality where image and sound carry equal weight and in which the jump cuts, fast edit pace and repeated visuals are unified with a "complex layering of sound [which] underscore[s] the divergences and flows" (2009: 263). Kara argues that it is sound that demonstrates the disunity of the space and place occupied by the three subjects of the film, with three distinct sections reflecting the "urban noise of Baghdad [...], the overpowering sectarian sounds of the Shiites, and the suspenseful quiet of the rural Kurds" (2009: 263).

Longley is credited as director, camera, sound and music, and his approach to all of the elements of his documentary's sound mirrors the complex sound design of narrative features rather than reflecting the actuality of the events being filmed. In the soundtrack, the distinction between diegetic and non-diegetic sound is difficult to determine, particularly in terms of Foley, and environment effects are used to articulate geography and unify the shots, forming the foundation of the sound mix. Foregrounded in the mix are non-diegetic folk songs recorded by Longley, and the voiceover dialogue. Elsewhere, Walla is deployed to heighten tension, together with a score dominated by ambient drones blurred with this complex sound design in order to connect very different shots of landscape cutaways, city scenes and talking head interviews.

As John Ellis observes, each of these documentary films and the representation of the subjects within them is a direct result of the impact of the development of digital technologies and the profound affect that this has had on image acquisition, post-production and distribution. He adds that the broader implications for documentary as a form have been its accessibility to new filmmakers, a reduction of the professional distance between the filmmaker and those being filmed, and a heightened degree of interaction between the subject and the films themselves (Ellis, 2011: 84). Schmulik Duvdevani argues that these "videos bring a narrower and more intimate perspective, which constitute an alternative to what Paul Virilio [...] has called 'the regulation points of view'" (2013: 280), or the dominance of a single view of political reality which he argues is engendered by a limited set of reporting mechanisms dominated by military messaging.

Green Zone's director Paul Greengrass attempts to challenge that single view, in presenting a story which connects the subjective experience of US troops on the ground, with the wider context of the conflict and the build-up to war predicated on the removed of weapons of mass destruction from Iraq. He explains:

That is why I conceived of [Miller], a character who was – as those men really were – engaged in those mobile teams whose job it was, as soon as the troops went across the border, to dive in fast, and find and secure these sites. [...]. Once he realised, I mean in that opening scene, "Oh bloody hell, there's nothing here," but more to the point, there's obviously never been anything here [...] His journey becomes a journey then towards an answer to that question, which is that the intelligence was manipulated, which it indeed was, in order to send him there, in order to make a case for war.

(Greengrass, 2016)

In his 2014 David Lean Lecture at BAFTA, Greengrass presents his view that the power of narrative film lies in its ability to communicate subjectivity, space and place more powerfully than other transmedia representations of actuality through the techniques of cinema. He states that, "Thrillers are in a language audiences understand. People come to the cinema to be taken places that only cinema can take them. They can be fantastical places of the imagination, or the compelling real-life environments that we see on television news. Cinema can take you there in a way that the news simply cannot" (2014: 4). This perception of the power of narrative film over news reportage comes through connecting the metanarrative of the conflict with the personal, subjective experiences characterised by documentary accounts and those short-form, combatant-originated accounts distributed to a global audience through technologies such as YouTube.

These narrative films effectively communicate these complex messages through coupling the audience's aesthetic considerations and understanding with the powerful storytelling techniques of genre cinema. They involve a script developed over months or years, performed by actors used to direction, shot with complex high-definition cinematography that appears to mirror documentary but is in fact planned, lit and benefitting from the efforts of a production design department. In the post-production of *Green Zone*, editing makes use of multiple cameras and coverage; a score is composed and performed for the film and sound which has been embellished in post-production design rather than being entirely reliant on actuality. In his David Lean Lecture, Greengrass notes that:

We're living in an era where reality is being turned into a commodity, to be bought and sold [...] It can lead to the twisting of facts and sometimes to distortions, and ultimately at its worst it can lead to propaganda. So it's right and necessary that critics are vigilant and hold us to account as they do, but more importantly I think we ourselves as filmmakers have to search our consciences while making our films to ensure that the liberties that we take, and that have to be taken with reality, are both fair and justified. (Greengrass, 2014)

Here, Greengrass acknowledges the risks of presenting reality and the issues bound up in it in *Green Zone*, where he states that his anger over the misrepresentation of the existence of Weapons of Mass Destruction (WMD) in Iraq "overwhelmed the necessary dispassion that you need to have when you make a film. I think it came out in that last half hour, because I was judge and jury in my own cause" (2016). This is, in part, as he attempted to square the demands of a complex story about the search for the non-existent weapons of mass destruction against the generic conventions of an action thriller which shared many of the same characteristics of Greengrass' contributions to the *Bourne* franchise (2004, 2007, 2016), for which the director and the film's star Matt Damon had previously received critical and box office success.

In feature films, Ken Provencher notes that fragmented hand-held imagery had dominated the first cycle of Iraq War films, citing *In the Valley of Elah* (Haggis, 2007), *Redacted* (De Palma, 2007) and *Stop-Loss* (Peirce, 2008) as mirroring documentary and news techniques (2008). In narrative terms, however, this imagery is restricted to flashbacks of combat, rather than dominating the entire aesthetic of the films, which all operate primarily as conventional investigatory thrillers. As an example, in *The Valley of Elah*, which originated from a story published in *Playboy* in 2004 by *The Hurt Locker* screenwriter Mark Boal, a father investigates the murder of his son who has recently returned from service in Iraq. Central to the film is his son's cell phone, which appears to show video footage of combat and the soldier's torture of a prisoner while on duty in Iraq. In *Stop-Loss*, again, soldier-originated footage of the conflict captured on his own domestic

video cameras breaks up a more conventionally shot homecoming narrative orientated around the controversial practice of extending the active service of US troops beyond their original combat deployment.

The narrative of the film *Redacted* hinges upon footage from multiple sources. This includes footage captured by a fictional professional French documentary crew embedded with US forces in Iraq, and from a US soldier within the unit -Angel "Sally" Salazar – who hopes to enter film school after his deployment with his own self-filmed documentary. In addition, the narrative is interspersed with footage captured by Salazar's helmet-mounted camera of a criminal act by members of his unit, and further insurgent-originated video of the beheading of Salazar following his capture. Central to the film is the idea that fragmented footage from different sources may show what happened, but only raise questions as to the context and reasoning of the event itself. In contrast, in the second cycle of Iraq War films, which includes *The Hurt Locker* and *Green Zone*, this hand-held, visceral documentary-style footage dominates the entire film.

The conflict presented by *Green Zone* fits into what John Trafton has termed "antiwar films", positioned in its marketing as a mediatisation of the conflict which serves as an alternative, or indeed in opposition, to the news media (2013). Through the coupling of the subjective sonic and visual techniques in the film to a broader anti-war narrative, director Greengrass fits Trafton's definition as a filmmaker who is making use of a "new film language that enables us to critically examine what we may call 'mainstream representations of war'" (2013: 115). Trafton argues that the representational mode of the conventional war film effectively presents conflict as virtual, and is limited by the conventions of the genre. He states that a body of Iraq War films – in which he includes *Redacted* and *In the Valley of Elah* – couple the characteristics of what I term the *Gulf War Aesthetic* with a fragmented, narrative structure and the use of restricted character agency in order to critique the Iraq War, military policy and the war film genre more broadly. Trafton also observes that these earlier films make use of a variety of cameras in order to present multiple points of view, and *Green Zone* also makes use of these techniques with a surveillance scene and in a short sequence which knowingly reflects combatant-originated footage with scenes where the MET-D team make use of cameras to film their experiences, a deliberate narrative choice by the filmmakers to show a film within the film (reflecting the narratives of the first Iraq War cycle of films) and, in part, explain the film's cinematography later in the story (Figure 3).



Figure 3: Soldier's own digital camera (Green Zone, 17:08)

In addition, and again reflecting the investigatory narratives of the earlier films, and indeed the work of the Mobile Exploitation Team tasked to investigate and secure sites of biological, chemical and nuclear weapons in Iraq following the invasion, the significance of cameras and the act of capturing of events on film is represented throughout the film. A scene towards the centre of the film shows enhanced interrogation techniques, mirroring widely circulated images of atrocities such as the abuse at Abu Ghraib (White and Higham, 2004), but showing the interrogation from both the camera's position and that of those viewing monitors from outside the room (Figure 4 and 5).



Figure 4: The recording of enhanced interrogation techniques (Green Zone, 48:35)



Figure 5: CCTV recording of enhanced interrogation techniques (*Green Zone*, 49:04)

Chiara de Franco's provocative use of the term "mediated" is helpful in framing *Green Zone* as both a text in itself, and as a platform to make the Iraq War more visible at the time of its release, mediating the "interaction between the agents of war and politics" (2012: 2, 182). Greengrass states that his intention was to bring the audience of his *Bourne* movies with him, and present the ongoing nature of the conflict to a "broad audience in the vernacular of popular genre cinema" (in Rose, 2010).

David Bordwell describes the use of rapid editing, close framing and intensive use of camera movement as "intensified continuity", and acknowledges that while the style of Greengrass' earlier films is undoubtedly visceral, this is often achieved at "the cost of coherence and spatial orientation" in *The Bourne Ultimatum* (2007: 2). Bordwell suggests that the purpose of this style is to compel attention in the viewer, generating anticipation and demanding total engagement from the audience who, if they were to look away from the screen, might miss critical information that a character has witnessed in that moment (2006: 180).

In his analysis, Bordwell argues that Greengrass over-extends the techniques of intensified continuity in The Bourne Ultimatum. In United 93, Bordwell suggests that the familiar locale of a passenger jet contains the action and would assist in the audience unpacking the information presented to them, but argues that this is lost when the aesthetic is transferred to the wider variety of environments in the later Bourne films. The use of intensified continuity in Green Zone is similar to that deployed in *The Bourne Ultimatum*, in that the protagonist is often out of focus, moves in and out of the frame, and is commonly positioned at the side of the frame from a camera position which does not reflect a conventional point of view. Matthias Stork describes these techniques as "a film style marked by excess, exaggeration and overindulgence"; what he terms "chaos cinema" (2011). In some ways, this aesthetic reflects the narrative and Bourne's state of mind and the inability of the authorities to apprehend him – but Bordwell makes an observation that this unusually visceral style requires that "to give it flow and high points, Greengrass must rely on sound effects and music. As a friend points out, we understand that Bourne is wielding a razor at one point chiefly because we hear its whoosh" (2006). It is sound which reconnects the visual style to the narrative events and the character's actions.

Methodology

In this chapter, I situate *Green Zone* in the wider context of its production culture. I consider the approaches taken in the making of the film through an analysis of industrial materials, the artefacts that surround the marketing of the film such as press kits, its critical reception by scholars and film critics and in interviews with production crew conducted by others at the time of the film's release as well as interviews I conducted afterwards. In the second half of this chapter, I undertake an intrasoundtrack analysis of the film, in order to compare what these media producers have said about the construction of the film with an analysis of the work itself. Caldwell argues that this "integrated cultural-industrial analysis" allows for a cross-checking of different discourses, which is less about uncovering an authentic reality and has more to do with an academic understanding of an "industry's own self-representation, self-critique and self-reflection" (2008: 5).

In addition to academic writing around media representations of the Iraq War, I make use of the *Green Zone Production Information* (Universal Pictures, 2010) pack. Universal Pictures released this 36-page press kit to journalists at initial press screenings as part of the film's marketing campaign. Caldwell describes this kind of material as a "Semi-Embedded Deep Text", the artefacts around a film such as press kits and trade publications that serve as a form of communication between media professionals. He describes the function of these texts as an attempt to "bring generalizing discussions of the nature and meaning of film from one corporate media company to another" – in this instance, those involved in the

film's production and journalists and critics writing about the film prior to its wider release (2008: 346-347). As Caldwell identifies, although not publicly disclosed documents, such texts are designed to stimulate discussion in the public sphere. In this example, I investigate how the *Production Information* is utilised to frame *Green Zone* as a different kind of film from earlier releases that had also made use of the Iraq War setting. I argue that this presentation is made through a focus on authenticity and as the film and its filmmakers having presented an alternative view of the conflict. The attention given to this authenticity furthers Joel Black's reading of "the reality-effect" (2001: 8) – as graphic and explicit as the war itself – and, although adding little to the narrative, lends a sense of significance, both in the canon of Greengrass as a filmmaker and of *Green Zone* within his body of work.

I also make use of interviews to inform the analysis of *Green Zone*'s production culture. With reference to these interviews, I explore the blurring of boundaries between the specialist roles that have traditionally come under the auspices of the sound department – particularly in the duties of composer, sound designer and Foley supervisor within this specific film. I also examine how changing working practices impacted the production of the film as a whole and the manner with which its final release makes meaning. These interviews were conducted by journalists and scholars contemporaneous to the film's theatrical release, and are supplemented by my own interviews conducted with key production personnel following the release of the film. Ultimately, it is my contention that the analysis of studio-sanctioned press material and these two forms of interview allow for differing perspectives on the production to emerge, which reveal contradictions in the presentation of the film by the studio and in its actual industrial practice.

The interviews were conducted with sources traditionally considered *above-theline*, including *Green Zone* producer Lloyd Levin, in addition to those working *below-the-line*, including those involved in the recording, editing, design and mixing of film sound, such as Foley supervisor Alex Joseph and music composer John Powell. Through these *Green Zone* interviews, I consider what Caldwell notes as the manner in which the film industry "researches and 'theorises' about itself" and the effect that this has on the interviewees' responses (in Mayer et al, 2009: 215).

The intention behind the practitioner interviews is to subject the working practices of those involved in the production of a studio-funded film and its component departments to detailed analysis, in addition to outlining the creative and management roles and responsibilities in the production. Connecting back to my broader thesis, I argue that these working practices affected the sound department of the production of *Green Zone* and, as has also been the case in visual effects, proved to be the catalyst for the increased practice of contracting independent companies specialising in sound production rather than retaining this work within the studio itself. These roles are complicated, as Susan Christopherson notes, by the processes with which media companies have pared down "their production workforces to an essential core [...] using temporary workers and self-employed workers on an as-needed basis" (2008: 157), where those engaged with *Green Zone* were all employed on a freelance basis.

Caldwell acknowledges the value of examining the culture industry and the citizens working within it in parallel, where the interpretation and analysis of their

own creative contribution can provide "a form of critical interrogation every bit as complex as those of professional critics" (2008: 339). He identifies a shift in the approach of corporations in film and television as being 'bipolar', a position he describes as a contradiction between "cultural expression at the public level and public information at the corporate level" (2008: 339-340). He argues that the demand from consumers and disclosure of extra-textual information is acknowledged by media companies as helping to cultivate deeper relations with audiences, but that the control of this information is managed within a rigid topdown corporate structure also echoed in the organisation of departments in film production. Caldwell argues that the academic tradition is to perceive such contradictions as an indication of "ideological fault lines" between corporations and creators, but that in fact such practice is evident of a fast-moving industry and developing practice (2008: 339). As Caldwell notes in his own studies, the testing of film's industrial reflexivity through the study of the self-representation of practitioners, and the texts and rituals generated in and around their production culture, allows for a deeper understanding of fundamental changes in cultural production much more "vividly and very differently [than] abstract generalizations about corporate economic practices" (2008: 342). In Green Zone, I argue, these deep texts present the film as a continuation of Greengrass' documentary practice and engagement as a filmmaker whose work is a significant catalyst for discourse and debate, but that this is problematic in the simultaneous presentation of the film as a thriller.

"Authenticity was the Mandate" (in Universal Pictures, 2010: 12)

The script for *Green Zone* was inspired by a work of non-fiction, the 2006 bestseller *Imperial Life in the Emerald City* by *The Washington Post*'s National Editor, Rajiv Chandrasekaran. In the book, Chandrasekaran offers a first-hand account of the operations of the Coalition Provisional Authority – the interim government installed in the International, or 'Green', Zone of Baghdad following the Coalition forces' invasion of Iraq in 2003.

Green Zone's Production Information describes how director Paul Greengrass had been developing a thriller set in the aftermath of the invasion of Irag by Coalition forces in 2003, and had optioned the book in his desire to tell fictional stories that connected to and commented upon real-world events (Universal Pictures, 2010). Greengrass developed early drafts of the screenplay himself before the Academy Award-winning screenwriter Brian Helgeland completed the final script. The Production Information highlights Greengrass' substantial work in documentary at ITV prior to his work in narrative film. It emphasises the significance of his earlier films based on real events – *Bloody Sunday* (Greengrass, 2002), the 1972 incident where British soldiers shot and killed 26 unarmed civilians in Northern Ireland, and United 93 (Greengrass, 2006a), which offered an account of the hijacking of a United Airlines flight as part of the terror attacks in the US on 11 September 2001. Co-producer Tim Bevan describes the desire of Greengrass and his team to work with historical information as they had with *United* 93. The film was distributed by the same studio, Universal, although its production budget was much smaller than that of Green Zone, \$15 million. In the Production Information, Greengrass is quoted as saying that, in *Green Zone*, the starting point of the production team had been to "make a bigger film, but still set against a real backdrop" (in Universal Pictures, 2010: 2-3).

Despite it being a work of fiction, the importance of articulating a sense of authenticity and realism within *Green Zone* is stressed as a significant driver of the production throughout the *Production Information*. The document highlights the involvement in the development of the script of "two dozen U.S. combat vets who served in Iraq, a half-dozen ranking former CIA officers with first-hand experience and an elite CIA paramilitary team leader" (No author, in Universal Pictures, 2010: 3-4). Their contribution echoes similar approaches to practice in Greengrass' earlier film *United 93*, where "authenticity was lent through the participation of nine people who played themselves, including the Federal Aviation Authority's (FAA) National Operations Manager Ben Sliney, re-enacting his harrowing first day on the job" (Marcks, 2006: 3). In the feature commentary that accompanies *United 93*, Greengrass states that the involvement of those who had been part of the events depicted in the film "gave a special veracity. I felt it was no longer acting, it was no longer make-believe" (Greengrass, 2006).

In his *David Lean Lecture* of 2014, Greengrass states that he felt he had found his own aesthetic through *The Murder of Stephen Lawrence* (Greengrass, 1999) and *Bloody Sunday.* He describes this as, "handheld, first-person, stripped out dialogue, action-led films of collision and conflict where you're thrust into the action gathering fragments and details along the way, and where the very sparseness of dialogue paradoxically allows characters and theme to emerge more clearly" (Greengrass, 2014: 9). He explains that his own voice as a filmmaker was one where his previous work in factual work met dramatisation, placing significance on his decision to deploy non-professional actors with professional actors in order to create a liminal space with a belief that this technique created a scene "without artifice [...] that feels real" (2014). The centrality of this to Greengrass' practice as a filmmaker is referred to in the accompanying *Production Information* to *United* 93 and *Green Zone*, and in interviews conducted with Greengrass at the time of the release of each film.

The importance of *Green Zone*'s military personnel is referred to throughout the Production Information. Under a subheading "Assembling MET-D: Veterans Join the Production," a number of military personnel and veterans are detailed as having been interviewed by the production team and cast in roles which mirror their own roles with the real Mobile Exploitation Teams (MET) deployed to Iraq after the invasion (Universal Pictures, 2010: 6). The advisors who perform in the film are profiled within the casting notes together with lead actors Matt Damon, Brendan Gleeson and Jason Isaacs. Under a second subheading, "Ensuring Realism: Advisors of Green Zone," Monty Gonzales, Chief Warrant Officer in the Army's own MET-A in 2003, is highlighted as a military advisor and the basis of Matt Damon's portrayal of Roy Miller (Universal Pictures, 2010: 8). A second veteran, Brian Siefkes, is highlighted in his role as Keating, mirroring his own role in the actual conflict with Gonzales and again articulating the accuracy and authenticity of the film when Siefkes states: "What you see us doing in this film is an accurate representation of what we did over there. It's what we experienced" (in Universal Pictures, 2010: 9).

In addition, in a scene within the film where the dismantling of the Iraqi Army is announced, the *Production Information* draws attention to the cameos of Rajiv Chandrasekaran himself, the writer of the text optioned for the screenplay, and one of the film's co-producers, Michael Bronner (Universal Pictures, 2010: 6). The document highlights this as another marker of authenticity and of the care and attention to detail in the production of the film. It states that both men attended the original briefing to the press by the Coalition forces in Iraq in 2003 on which the scene is based, the former as part of his duties at *The Washington Post* and the latter as a producer for CBS News (Figure 6).



Figure 6: Mirroring reality, press conference (Green Zone, 76:29)

In a later sequence, referred to as "bump street" in the *Production Information*, the mirroring of real events is again highlighted (Universal Pictures, 2010: 10). Taking just a minute of screen time, the MET-D convoy pushes through a traffic jam caused by a water shortage and near riot of civilians. The use by the production of Bronner's own reports of a similar incident which took place in Baghdad broadcast by CBS in 2003 is described. Highlighting the significance of these casting choices and production design decisions in press materials reiterates the importance to this production of a sense of realism and the significance in communicating to the press the reality-effect of this attention to detail. As in Henry Jenkins' examples of the liminal spaces of reality television (2008), these decisions serve to blur the boundaries within the film of what is real and what is not. Through their appearance in the film itself and their input in the realisation of scenes and sequences, these advisors present a validation of the authenticity of the production's depiction of the conflict and the action of the characters within its

narrative. The intention to manufacture a sense of 'reality' through the inclusion of these performers is common in the cycle of films which followed *Battle for Haditha*, including both *Green Zone* and *The Hurt Locker*, and is framed in the marketing materials for both films as significant in maintaining a sense of integrity to the source material.

Greengrass' intentions are made evident through the reliance at script stage and production on consultants and personnel speaking from their experience of the conflict, and this positioning of the film by the studio was reiterated in interviews at the time of the film's release, indicating the manner in which journalists and critics had made use of the materials provided by the studio. In an interview with Greengrass for the Guardian, journalist Steve Rose depicts Green Zone as having interwoven "two discrete strands of Greengrass' work to produce a movie that is both real-world political commentary and thrilling action ride" (2010). Rose stresses that Greengrass had "read all the key books and reports and interviews on Iraq" before highlighting the real-life consultants on the film and the dossier the director had written detailing the "choreography of the whole Iraq/WMD affair, with extracts, figures, bullet points and footnotes" (in Rose, 2010). This approach in the production echoes that made in *United* 93, where Greengrass compiled interviews with the families of victims in order to compile a dossier on each passenger on the plane. These dossiers, rather than a traditional script, were then provided to the actors (Marcks, 2006: 3).

The article iterates Rose's sense of a failure of previous films to address the issues surrounding the Iraq War, citing *Lions for Lambs* (Redford, 2007), *Rendition* (Hood, 2007) and *Redacted*. He positions *Green Zone* as "brazenly political" and

groups it with Greengrass' earlier films – *The Bourne Supremacy, The Bourne Ultimatum* and *United 93* – as an interconnected series critical of the George W. Bush presidency and the War on Terror which followed the terrorist attacks in New York on 11 September 2001 (in Rose, 2010). This framing of *Green Zone* by the studio and the deployment of this narrative by journalists is a repeated motif in media reports related to Greengrass, and has been evident more recently in the press campaign that accompanied *Captain Phillips* (Greengrass, 2014). Again drawing upon real events, this later film is based upon the hijacking of the Maersk Alabama cargo ship by Somali pirates in 2009 and the rescue of the titular character by Navy SEALS. Greengrass has since been attached to two further historical projects, *The Ballad of Richard Jewell* on the attempted bombing of the Atlanta Olympics in 1996 (Brooks, 2014) and *The Tunnels*, an account of an escape attempt from East Berlin in 1966 (McNary, 2014). In each of these reports, the focus is on the sense of authenticity in films directed by Paul Greengrass and a desire to reveal 'truth' through his filmmaking.

Of all his films, *United 93* marks the most significant shift for Greengrass in a return to the documentary form, production methods and filmmaking techniques that defined his earlier career. Cynthia Weber states that the challenge for Greengrass with that film was "to achieve the truth effects of documentary in the less truthfully felt medium of film without losing the fast pace of cinema that produces a feeling of immediacy much better than does documentary" (2008: 148). She describes the film's opening sequence as presenting a "unitary point of view" rather than the traditional shot/reverse shot of narrative cinema (2008). This muddying of the differences between documentary and feature film in these scenes adheres to the characteristics of the *Gulf War Aesthetic* and is significant

to the thesis in that the sequence she describes directly mirrors the opening sequence of *Green Zone* that I subject to intrasoundtrack analysis later in this chapter. In both sequences, a hand-held shot establishes the protagonist and foreshadows the forthcoming action through a close-up of a document accompanied by syncretic sound, but offers little other contextual information for that moment. Weber states that this differentiates *United 93* from traditional feature films and presents the film as operating in a documentary mode, in that the shot and its accompanying audio offer a single spatial and temporal position. In both *United 93* and *Green Zone*, a restricted narrative is initially presented, where both the point of view and the auditory point of audition is limited to that of the protagonists, although the documentary mode of shooting and editing is supported by more common generic techniques such as the use of the score and of actors in lead roles.

David Denby in *The New Yorker* problematises this approach to filmmaking in a piece on *Zero Dark Thirty*, director Kathryn Bigelow's 2012 account of the search for Osama bin Laden, which was marked in its *Production Notes* as an attempt to present an authentic account of the events – "an amalgam of action-film and investigative reporting and drama" – that led to bin Laden's eventual capture in Pakistan (in Columbia Pictures, 2012: 2). Denby comments that any authority lent by this claim for authenticity is inherently contradictory, in the filmmakers' desire "to claim the authority of fact and freedom of fiction at the same time" (2012). As Denby identifies, the use of the *Gulf War Aesthetic* is morally problematic here in its attempt to present truth, a problem that I will argue in Chapter Three is largely avoided in Bigelow's earlier film *The Hurt Locker*, where it is deployed in a more subversive way without a direct connection to historic events. It is this claim to

present truth in *Green Zone*, which Greengrass has repeatedly made, which I now explore.

Where the Factual Voice Meets Dramatisation

In his *David Lean Lecture* of 2014, Greengrass explains that his voice as a director developed when his past work in factual filmmaking met dramatisation. In his own impression of the significance of this work, the director notes that these liminal spaces between history and the contemporary moment, documentary and drama, echo the Op-Ed sections of newspapers offering personal comment on historical events. According to New York Times Op-Ed editor David Shipley, these should not speak "for the news side of the paper" (Shipley, 2004). For Greengrass, his depth of research, the deployment of non-actors, the limited point of view and point of audition offered by a roving camera and microphone sit in a position of participant observer/listener. This, combined with long takes which allow the actors to find their space, offers what he has expressed to be a more authentic representation on screen of more traditional, scripted feature film techniques, and allows for films which operate "without artifice" (Greengrass, in BAFTA Guru, 2014: 15).

The *Green Zone Production Information* repeatedly presents the combination of these techniques as an authentic account of the events following the invasion of Iraq. In the same document, however, Greengrass himself situates the film outside of the Iraq War film genre, stating "this is not a movie about the war in Iraq. It's a thriller set in Iraq" (2010: 2). Patricia Pisters argues that through the foregrounding of what she describes as perceptual technologies – evident in *Green Zone* through an opening voiceover from a real news channel report, and subsequent later

fictional representations of widely reported events such as the beginning of the 'shock and awe' air campaign within the opening sequence – the film finds that "different formats and screens are entangled in complex ways and present different point of views of the same events" (2010: 237). She acknowledges the similarity between the subjective and affective intensity of the images in Gulf War films to that of first-person shooter video games, and while she argues that this "translates into a conflict of points of view," it is the combination of these characteristics that allows this amalgam of texts to "ultimately convey an affective truth" (2010: 237-238).

In an interview, Green Zone's Cinematographer Barry Ackroyd describes the

shooting of a chase sequence that introduces the closing act of the film as having represented a deliberate break from both the generic conventions of action thrillers

in order to further distinguish the film from previous war films, and also to

distinguish the scene from similar sequences in Greengrass' Bourne films.

The sequence that happens in the streets at night [...] wasn't scripted, or it was scripted as much 'then there will be a chase scene.' [...] We didn't know what it was going to be, where it was going to be or the look of it, whether it was day or night. The *Bournes* tend to be day scenes when there's a chase, so we thought night would be good. I remember Paul saying "night would be good wouldn't it?" and I said "Yeah", before realising the consequences. There's no street lights. There's no generators. It's in curfew, they don't carry torches on their guns and they're in civilian clothes. So I was, "OK, we've got to distinguish all these people". It created a lot of technical problems in a way. I think we overcame them – the film's grainy and you don't register faces and eyes and all that stuff- you know, the conventions – but I think it gives a drama to the film that is kind of unique to that kind of war film. Having risked that, and having Paul prepared to let you risk it, and want you to risk it, you know to fight the studio that this is the look that we want. There isn't a kind of plan to make [the film] different. It's just that circumstances make them different. (Ackroyd, 2012)

Journalist Quentin Falk describes how Ackroyd and his team make use of multiple

cameras to capture the action and employ techniques that allow continuous

shooting for 30-minute blocks. This allowed the actors a freedom to perform and

move through the scene, and again distinguishes the blocking of the performers from conventional action cinema. Matt Damon describes that this freedom from the more common 11-minute maximum scene length, dictated by the load of film stock in a camera's magazine, allowed the actors "to stay in this heightened reality" (in Falk, 2010: 18). In an interview, Greengrass discusses the significance for him of long takes that allow for improvisation from his performers, and the use of restricted point of view and point of audition (in Thompson, 2007).

Unlike in his earlier films, however, in *Green Zone*, these long takes are rarely evident on screen, lost in a frenetic editing pace. Critical responses to this development in Greengrass' style have been mixed. Anne Thompson at *Variety* praises the director's coupling of documentary techniques with improvisation in an interview where the director explains that the crew had been "developing the story as we shoot and move" (Greengrass, in Thompson, 2007). David Bordwell discusses the use of the technique as effectively allowing Greengrass to "smudge" genre conventions in his *Bourne* films. He notes that in traditional action cinema sleek movement and clear framing allow for an audience to follow what is occurring on screen, but that in this kind of cinematography, "Greengrass's shot-snatching conceals the flamboyance of the stunt" (Bordwell, 2007c).

This energy works well initially and mirrors the assemblage style of documentaries discussed in Chapter One, including *Iraq in Fragments*. As Greengrass states, "I think it's a film that naturally put you in Iraq, one of the very few that did and really showed you the surreal nature of the place. You know, I thought it was superbly realized in terms of Baghdad and the chaos, and the Saddam palaces cheek by jowl with the chaos of the urban markets, and you could feel it brewing up into the

conflict it became" (2016). Bordwell observes the significance of the soundtrack in

connecting these frenetic visuals together, where "the resulting visual texture is so

of a piece, so persistently hammering, that to give it flow and high points,

Greengrass must rely on sound effects and music" (Bordwell, 2007c). Unlike

United 93, where many action scenes are presented without music, the shorter

shot ratio and multiple angles of *Green Zone* are rarely without music, in order to

provide continuity. This effectively undermines the verisimilitude in many scenes,

where in a number of sequences composer John Powell underscores the action

with low string tones and militaristic drums, this overly cinematic device serving in

sharp contrast to the subjective, in-the-moment visual action, as he explains:

It's just grease, that's all the music is – it's just grease that keeps everything moving […] Paul is all about pulse and rhythm, and just tension. Part of the issue with tension is that you can keep tension going. If music is nothing else, its tension and release. You create tension either harmonically or structurally or rhythmically and then you release it and how you release it, and whether you release it completely or you partially release it so you can create more tension overall is the key. I would just be trying to create the right kind of layer of tension he needed for that particular section of the movie and try and find the pivot point. If you notice, it's like never-ending music. (Powell, 2016)

This visceral visual editing pace presents a challenge in terms of Foley, effects and mix elsewhere in the soundtrack. Foley supervisor Alex Joseph describes the cinematography and editing of the film as presenting a challenge for the sound team, where Greengrass would have an "infinite amount of coverage for every scene but this allows him to change angles indefinitely through the edit" (in Riehle, 2010). He describes the complexity of the shoot, with multiple cameras and multiple angles in the final edit requiring the Foley team to "mic things differently depending on their proximity to camera" in order to resolve breaks between angles and shots (in Riehle, 2010), echoing Bordwell's observation of the importance of sound in this extreme form of "intensified continuity" (Bordwell, 2007a). Joseph acknowledges that his brief for *Green Zone* required "a fair degree of realism, so I spent a lot of time researching what kit the soldiers wore, what guns and weapons were used and what they sounded like" (In Riehle, 2010). He acknowledges the significance of what he defines as "creative sounds and textures" and notes in an interview that *Green Zone*'s production blurred the design of FX and Foley on the film, where he "recorded a lot of effects for chaotic scenes early in the film that enhance the pandemonium" (in Riehle, 2010). This would ordinarily be recorded by a team responsible for effects, but the complex camera framing and movement had lent particular importance for the sound design to track the movement of characters in scenes.

This is evident in the film itself, as characters enter the frame in unconventional ways, where the camera does not conform to eyeline matching and breaks the 180-degree rule that typically configures an axis of filming a scene in drama. These conventions have formed through keeping the audience within a story, a basic principle of continuity (Brown, 2012). In scenes that Ackroyd describes as having been shot in near darkness or where the camera movement is confusing and the blocking of central characters unclear, a style which dominates much of the film, Joseph explains that this required the sound team to "set up sonic conventions early enough in the film, [in order for] the viewer to take them in and associate them with the characters subliminally" in order for them to be identified, while unseen (in Riehle, 2010).

Ellis discusses how Greengrass trades upon the contemporary documentary gaze as indicative of the "intensification of audiovisual witness," producing scenes where the camera enters the action but within events – such as the search for WMD in the case of *Green Zone* – which move so quickly, the camera can barely keep up (2011: 86-87). This approach can serve to destabilise an audience as Greengrass' documentary techniques follow Roy Miller and his team, and situates the audience within the subjective storytelling of the film. The audience share the experience of Miller's MET-D team in the film, in that they are permanently behind the action, unable to find the non-existent Weapons of Mass Destruction.

The Unnarratability of the Iraq War

Garrett Stewart identifies the "most salient formal feature" of films representing the Iraq War, as "the blanketing of plot by a thick quilt of digital mediation. Battle fatigue has grown stylistic, affecting the picturing as well as its scene" and states that "anything approaching oppositional cinema in a realist combat mode risks being thwarted by the requisite authenticities of its own visualization" (2009). The desire by Greengrass and his team to present an anti-war film but to do so while presenting the narrative in a manner as close to a documentary style as possible is disorientating, and distracts from the wider ideological message.

In *Green Zone*, the drive for authenticity undermines the ideological anti-war stance of the film. The film communicates at different levels. Its restricted narrative, first-person point of view and "run-and-gun" (Jullier, in van den Oever, 2014: 160) camera techniques borrow from news footage and documentary, but this framing of the entire film through the visual aesthetic fails to serve as a mise-en-abyme, in that these techniques undermine rather than illuminate the larger ideological message of the film articulated in the *Production Information* (Universal Pictures, 2010). The filmmaker's anti-war position is countered by the necessity of meeting the genre conventions of the thriller in a film whose metanarrative is the

pointlessness of the search for Weapons of Mass Destruction. The audience are complicit here, in knowing there to be none from the very start of the feature, with the film's response to deliver the immediacy missing from its broader narrative through its aesthetic – achieving this by its multi-camera and position cinematography, its pace through its editing and the necessity of blurring techniques through its music where the sound track sits at the back of the mix, unable to unify the complex geographical spaces navigated by its characters. As Greengrass states "the film's ability to deliver [...] became muddy and a bit muddled. To me, looking back, I think it started to surrender to genre too much" (2016). The adoption of the *Gulf War Aesthetic* serves to undermine the political aims of the film, with the components of the action thriller overpowering the overarching thrust of the narrative – the Iraq War had been prosecuted on the false premise that Iraq was in possession of Weapons of Mass Destruction and was in a position to deploy them within 45 minutes (Williams, 2011).

Joshua Clover, writing about the HBO mini-series *Generation Kill* (White and Cellan Jones, 2008), an adaptation of reporter Evan Wright's account of his time embedded with a US Marine unit during the Iraq War, noted the "unnarratability of the Iraq adventure, its unreason, and inevitability of the idea that there was no reason to start with" (2009: 9). *Green Zone*'s initial premise is predicated on the search for WMD following the Coalition invasion of Iraq in 2003, but is undone through the audience's knowledge of the futility of that search. As such, the plot of the film presents the search for WMD as a MacGuffin and Miller's arc through the film is to determine how the poor intelligence he has been receiving from the Pentagon and the CIA is misleading. As Miller searches for the original source of the information, he states in a revealing line of dialogue, "The reasons we go to

war always matter. It's all that matters". As Miller pieces the truth together and blows the whistle in a leak to the press, the implication is that the flawed single source of the information related to WMD is indicative of a wider cover-up at the heart of the Bush administration.

In an account of the Iraq War films released before *Green Zone*, Stewart describes a commonality of movies tackling the second conflict in the Gulf. He argues that any genre template for traditional war films was lost in the nature of this specific conflict – where Improvised Explosive Devices had replaced a discrete embodied enemy. He states: "Gone are the choreographed and panoramic staples of the combat genre, beachheads to be won, fortresses held" (2009: 45), adding that with "no genre formats to count on, these narratives can only project a visual 'look', where the graininess of the image, infrared or video, must stand in for the true grittiness of the mission" (2009: 46). His position echoes Barry Ackroyd's focus on the significance of this visual representation of the narrative, but presents this aesthetic as being empty of meaning.

The significance of this tension – between the spectacular narrative of the war genre, and desire for authenticity – to the lack of WMD or indeed any easily identifiable enemy in the landscape of post-invasion Iraq of 2003 depicted in *Green Zone* is highlighted to journalists throughout the film's *Production Information*. This reiterates the importance placed by Greengrass and his producers on the responsibility of narrative film and television to be closer to the truth of the conflict than the news media, acting upon his stated belief that embedded reporters failed at the time to present an account of the Iraq War that

represented the truth on the ground at the time of, and in the years following, the invasion.

Inside Green Zone: An Intrasoundtrack Analysis

In this section, I determine how *Green Zone* uses the conventions of action cinema in its visuals and how this grammar of shooting is complicated by a discrepancy between the point of view (POV) shown on screen and an unusual use of the point of audition. Through close analysis, I test the manner with which the integration of visual and sound production practices works to create a unified and specific point of view and point of audition in the film.

The film was presented with a difficult premise. That the intelligence agencies of the US-led Coalition had created a false set of data – of sexed up reports and dodgy dossiers (McSmith, 2016) – to prosecute a war, would come as little surprise to audiences viewing the film six years after the news media, and numerous documentaries, had unpicked the events portrayed within it. As Philippa Gates observes, "the 'look' of war that was initialised by the realist combat film in the second half of the 1980s [...] reached maturity in contemporary Hollywood film with a fully developed and defined set of visual and aural conventions" (2005: 300). However, the landscape of visual and aural representations of war changed rapidly in the later part of the decade and into the 2000s, notably through the borrowing of techniques drawn not from cinema but other media properties. As Melani McAlister notes, these "narratives, born of amnesias, promise to stitch together a patchwork past. They are forged not just by policy makers, but at the intersection of news accounts, policy developments, and cultural texts such as films, novels, and even video games" (2006: 326). She acknowledges that these

narratives are powerful, in part through their familiarity to audiences, and in *Green Zone* these borrowed techniques certainly assist in placing the audience into the centre of events that follow the invasion. Through close analysis, I argue that, while this stitching together of disparate forms of these transmedia aesthetics is innovative and presents an advanced form of what I have identified as the *Gulf War Aesthetic*, *Green Zone* suffers from a lack of unification between the soundtrack and visual events within the narrative. The effect limits the ability of the film to communicate its subjective position to the audience.

The manner with which the film attempts to do this draws attention to a larger problem in *Green Zone*'s narrative. The film attempts to carry the flag of authenticity brought about by its similarity to transmedia representations of the Gulf War, while simultaneously challenging the 'truth' of events presented by those media – particularly in relation to news coverage – through its narrative. Through my analysis, I argue that the use of documentary techniques has been conflated with other transmedia modes of storytelling, and that the resultant film struggles to square its visual aesthetic within a unified sound design that makes use of the conventions of an action thriller, directed by and featuring performances from those involved in the fictional *Bourne* franchise. Although *Green Zone* did not necessarily resonate with its audience, where a muted critical response was followed by a poor box office return of \$95m against a reported \$100m budget (Corliss, 2010; Box Office Mojo, 2015), I evaluate how innovative its production practices are, and their impact upon the manner in which the sound design of the film and its relationship with the visual imagery construct meaning.

Despite Greengrass' claim that he avoids spectacle "by pushing everything into the present tense" (in Phelan, 2004), I argue that *Green Zone* makes use of what Geoff King describes as "spectacles of 'authenticity'" in its visual presentation and that the demands this places on the audience require complex work in the sound design of the film in order to unify both for the audience. This positions the film as one that makes for "respectable' representations of war rather than more 'lowly' works of action-exploitation" (King, 2000: 118). Thomas Ærvold Bjerre argues that, although *Green Zone* operates as a conspiracy thriller, "despite the framework of the genre, [director] Greengrass places the film in an almost real world" (2011). Bjerre argues that this is achieved through the use of professional soldiers performing as members of Matt Damon's team and the deployment of a documentary visual and audio aesthetic in order to build layers of verisimilitude (2011: 228), both of which I frame as part of Greengrass' filmmaking practice.

Green Zone is centred around Chief Warrant Officer Roy Miller, played by Matt Damon, who leads Mobile Exploitation Team (MET) Delta. Although not directly explained in the film, this team reflects a real unit comprising 24 troops, drawn from the US Army's 4th Infantry Division, who were tasked to hunt for Weapons of Mass Destruction (WMD) and related documentation during Operation Iraqi Freedom in 2003 (Lofy, 2003). The narrative of *Green Zone* charts Miller and his team as they investigate sites believed to hold WMD in the days following the Coalition invasion, and their subsequent discovery of a conspiracy that surrounds the US involvement in Iraq and the acquisition and deployment of intelligence information related to WMD. The *Production Information* that supplemented the film's press previews makes a series of claims for its authenticity, describing the film as a "high stakes thriller, drenched in the authentic details of a war zone" (Universal Pictures, 2010). The pack describes director Paul Greengrass as having begun "his career covering global conflict for Britain's ITV" and articulates the significance of the collaboration of soldiers and intelligence officers involved in the conflict itself within the screenplay's development (Universal Pictures, 2010), further underpinning the notion of truth-telling within the narrative of the film. As Bjerre notes in relation to *Redacted* and *Battle for Haditha*, "several […] directors have made it explicit that in the atmosphere of censorship and cover-ups of the war in Iraq, their films should be seen as spearheads of the truth" (2011: 226). Although commenting on these earlier films, both released in 2007, the same suggestion could certainly be directed towards Greengrass and *Green Zone*.

Brian Helgeland's script makes use of *Imperial Life in the Emerald City: Inside Baghdad's Green Zone* as its source material. Written by *The Washington Post*'s Baghdad bureau chief, Rajiv Chandrasekaran, and published in 2007, the book offers an account of the actions of the transnational reconstruction project installed in Baghdad following the invasion of Iraq in 2003. This presents a tension within *Green Zone*, in that the film makes a considerable effort to reflect the verisimilitude of troops' experience in the days following the US invasion of Iraq through its visual and audio style, while being presented as operating as a high-octane thriller from the same star and director of many of the films in the *Bourne* franchise.

In my analysis. I demonstrate how the aesthetic of sound and image deployed within *Green Zone* borrows from the aesthetic of news journalism, documentary

and combatant-produced footage distributed via Internet channels such as YouTube, and has a clear overlap with the developing aesthetic of video game franchises such as *Call of Duty*. Steve Neale argues that certain genres, in which he includes the war film, "appeal more directly and consistently to cultural verisimilitude". He notes that they "often mark that appeal by drawing on and quoting 'authentic' (and authenticating) discourses, artefacts and texts: maps, newspaper headlines, memoirs, archival documents, and so on" (in Stam and Miller, 2000: 159). As I demonstrate, this notion of an authenticating discourse is significant in that it has been associated with director Paul Greengrass throughout his career and is evident as driving some of the decisions made during the production of *Green Zone* and in the marketing strategy of the film itself.

The sequence chosen for analysis occurs close to the beginning of the film, where Miller and his team are first introduced. The scene shows the chaos on the ground in Iraq following the invasion, and sets the visual and sonic tone of the film. In addition, the central conspiratorial conceit of its narrative is articulated within the sequence – that the intelligence related to WMD provided to Coalition troops by the US government was not just inaccurate, but manufactured by the intelligence agencies in order to justify the invasion itself.

The film is introduced with a three-minute contextual preamble that precedes the sequence I subject to the more detailed intrasoundtrack analysis. This preamble is significant in understanding the film as a whole, in its presentation of aural information prior to visual information – thereby highlighting the significance of sound to the audience within the film. In addition, the preamble makes use of reportage from the war itself. By drawing its visual and sonic cues from news

coverage broadcast contemporaneous to the beginning of the actual campaign in 2003, the film immediately plays upon a verisimilitude between its cinematic events and those reported.

The film begins with the logos of co-producers Universal and Working Title, accompanied by the sounds of explosions, air raid sirens, jet engines and multiple degraded voices in the English language and journalistic in tone. The voices are initially indistinct, digitally degraded and difficult to distinguish in a cacophony dominated by the sounds of explosions. These first few seconds of *Green Zone* are reminiscent of *THX1138* and *The Conversation* (Coppola, 1974), in that sound is privileged over image, where there is a lack of an establishing visual shot and sound is foregrounded for the audience as significant. William Whittington articulates regarding these earlier films that these opening sequences are significant in the manner with which "the film-makers asserted the position of sound as equal partner to the process of cinema" (2007:76).

Further title cards list the production companies, as a single male voice is foregrounded in the audio: a news broadcaster announcing "another huge blast" in an attack "raining down here in a relentless assault on Baghdad". An interstitial card lists the date in white letters on the black screen as "March 19, 2003". The same voice states that "there is no doubt tonight that war has begun, and the Iraqi capital is experiencing shock and awe". This dialogue is syncretic with a second interstitial title card that situates the film in "Baghdad, Iraq". The "shock and awe" doctrine was developed in a report to the US National Defense University as part of a military strategy of "rapid dominance" through the use of overwhelming force over an enemy (Ullman and Wade, 1996). The phrase has a singularity of association with the Iraq War through briefings to the press by the US military prior to the commencement of the conflict, and is linked to the air campaign that launched the invasion at the beginning of the campaign rather than the longer war (Martin, 2003). The interpretation of events by the voice of the western broadcaster comes to dominate the soundtrack.

In the film, this acousmatic (see Glossary) sequence, in which sound is heard but its source is not seen, privileges sound in the first few seconds of the film while denying the audience an image. Sound designer Randy Thom describes this as "starving the eye," which, he adds "will inevitably bring the ear, and therefore the imagination, more into play" (1998). In this instance, these cues of dialogue remind the audience that the events they are about to witness are situated around historical events.

A whistling missile strike and flash of light opens the movie visually, accompanied by a non-diegetic music cue entitled *Opening Book* by composer John Powell. Powell worked with Greengrass on *United 93* and all three of the director's *Bourne* films, and the score echoes this earlier work with the combination of low orchestration and a relentless, driving percussion whose rhythm echoes the accelerated pace of the camera movement and editing. Using Claudia Gorbman's terminology, music here serves primarily as a signifier of emotion (1987: 73): the cue's low, orchestral strings and militaristic rhythm setting a serious tone of a significant moment in the narrative while the tempo sets a driving pace.

The first shot of the film features a photograph to the left of the screen in which Saddam Hussein is pinning a medal to a military officer. The camera shakes syncretic to the sound of a loud explosion accompanied by human screaming, before tracking to a close-up of an office in which a man in civilian clothes opens a safe. Arabic dialogue is low in the mix, drowned out by the screams, the music unifying interior and exterior spaces as the lights flash on and off. In this short sequence, an aide runs to the office through a building that appears to be a palace, addressing the civilian in Arabic as General AI Rawi, this dialogue both foregrounded in the mix and subtitled in English on the screen, signifying the significance of this character where the voices of other people shown in the sequence take the form of background Walla as civilians and military staff evacuate by torchlight. The sound is entirely syncretic to the action on the screen, and the camera continues to shake as the building suffers a number of direct strikes as part of the assault announced in the preceding interstitial sequence. Al Rawi picks up a hard drive from a desk and is escorted from the building by armed and uniformed troops.

The General passes the hard drive to an aide before entering a car, his subtitled dialogue drowned out by the thunderous sound of anti-aircraft fire, and leaves the compound in a convoy. As the pounding score fades to a high string note, the tone of which matches the sound of the air raid siren which opened the film, the camera tracks skyward on a crane in an extreme wide shot which reveals explosions lighting up the sky as a series of Coalition missile and bomb strikes explode in the city across the Euphrates river. The scene shares a verisimilitude with CNN's news coverage from 19 March 2003 of the 'shock and awe' campaign, a series of air strikes to infrastructure in Iraq that preceded the Coalition invasion the following day (Figure 7). The soundtrack is dominated by the sound of these explosions, as

the air raid siren and high string note fade into heavy reverb as the sequence fades to black. The title card "Green Zone" appears in white letters on the screen.



Figure 7: *Green Zone* (2:27) (left), CNN, 19 March 2003 (right) This connection between the journalistic introduction and the re-representation of the events described in the broadcasters' report reiterates the closeness of the film to historical events, and serves to accentuate the sense of authenticity of this fictional representation to the audience.

The AI Rawi scene establishes the visual theme within the film, in that the camera presents as the position of a character within the diegesis, with the hand-held shot and reverse shot positioning a clear point of view. The soundtrack conforms to the conventions of action cinema, with the sound entirely syncretic with the action seen on screen and accompanied by a loud non-diegetic score. The scene serves to extend upon the well-reported scenes from the initial airstrikes of the 'shock and awe' campaign, reported live through CNN and other news networks contemporaneous to the events occurring on the ground in Iraq (CNN, 2003). Importantly, the scene shows the effects of the strikes on people in Baghdad itself – citizens are notably absent from much of the news coverage of the time, which instead focused on the effect of the strikes on buildings and infrastructure. The scene is indicative of a narrative that will take the audience behind the scenes of the reportage of the conflict.

Intrasoundtrack Analysis 1: Search for WMD (2:46-10:00)

The first scene to be subjected to intrasoundtrack analysis takes place immediately after the AI Rawi sequence in the film, although it is situated a month into the US campaign. Titled Search for WMD on the DVD, the sequence has been chosen because it sets both the pace of the rest of the film and its visual and sonic aesthetic. The introduction of Miller and his team occurs as they arrive at what they suspect is a WMD site in Diwaniya, an Iraqi city where they discover US troops pinned down by an enemy sniper who occupies a high position in a tower block. This scene serves as a useful comparison to a similar story event that takes place in *The Hurt Locker*, where a small number of troops are pinned down by an enemy sniper. Both scenes play out in real time, are similar in length and have a soundtrack in which the sound design forms a significant part of the diegesis and the articulation of space, place and time. In the following chapter, I subject *The Hurt Locker* to a similar intrasoundtrack analysis in order to compare the different approaches of the two productions, and the manner with which sound and image make meaning very differently in each film.

The sniper sequence in *Green Zone* begins with an interstitial card that states the action takes place "4 Weeks Later" than the escape of General AI Rawi. This situates the scenes that follow shortly after the US declared victory on 14 April 2003, nine days after Coalition ground forces seized Baghdad (Dobbins et al, 2009). John Powell's music cue has faded with the sound of the air raid siren, signifying a shift to actuality. The white text is presented on a black screen to the syncretic sound of typing, retaining the tone of journalistic reportage articulated in the opening moments of the film. Revving engines are accompanied by radio

traffic communication which announces "Approaching target site, three five niner". This use of the radio is consistent throughout the sequence. It is, in Chion's terminology "textual", in that the dialogue acts upon the events in the pro-filmic world (1994: 172-176). The radio voice is authoritative in this first act of the film, and can be trusted as reporting facts from the ground in real time rather than from the intelligence sources, which are later discovered to be unreliable. The use of radio here also expresses that Miller and his men are not operating in a vacuum, but rather that their work is part of a more expansive conflict occurring beyond the frame.

The first shot of the sequence is an extreme close-up of a document titled "Diwaniya Chemical Weapons Facility, Verified WMD Site, Commander's Brief." and subtitled "Verified Intel. Report." The document dominates the frame for almost six seconds, before the introduction of any characters - the framing and relatively long take compared to the fast edit pace throughout the rest of the sequence highlights the significance of the document, in both the scene that follows and the film as a whole (Figure 8).



Figure 8: Extreme close-up (ECU) of intel report (*Green Zone*, 4:27)

In this moment, the document is trusted by its reader as representing fact. It states twice on its cover that the contents of the document – that Diwaniya is a Chemical Weapons Facility – are verified. This verification is later revealed in the scene as having come to US ground forces from US intelligence.

A close-up of Matt Damon's character, Roy Miller, follows. Riding in the back of a US High Mobility Multipurpose Wheeled Vehicle (HMMWV, more commonly referred to as a Humvee), Miller summarises the report for the rest of his team over his radio. Here the radio, or "on-the-air" speech serves as both delivering "theatrical speech" in Chion's terminology, in that it is central to the action and issued from a character who can be seen in the film frame, but also "textual speech" in the way it places the audience in a subjective position (1994: 171). Textual speech is often utilised where dialogue serves as witness to the main narrative, and this is an interesting application in this sequence, where Miller and his team later witness first-hand the differences in the manner with which Diwaniya is represented in the report and the actuality of events on the ground.

A crash zoom reveals the Humvee's turret gunner, then the rest of the small convoy, which consists of a second Humvee, a truck and a fourth vehicle throwing up dust as they travel with urgency along a dirt road. The crash zoom ends in a wide shot showing palm trees and a city backdrop where smoke from past explosions dominates the skyline, mirroring the scene at the end of the AI Rawi sequence and suggesting that the action is taking place in the day or days following the 'shock and awe' campaign. A reverse shot shows armed troops in the rear of the truck as the convoy moves over a bridge. Miller lists the contents of the site over the radio and informs his team that the "101st has been here all morning,

so the site is secure", referring to the presence at the site of the 101st Airborne, a US Army light infantry division.

As the intrasoundtrack analysis shows (Figure 9), Miller's dialogue sits loudly in the mix but is not foregrounded; rather, it is at a similar level to the effects in this section of the sequence, fighting for attention above the roar of the engine noise of his own convoy and the sound of the bystanders to whom the US troops throw bottles of water. There is no diegetic music. The soundtrack here serves to reinforce the notion of authenticity of the scene, its immediacy and the subjective positioning of the audience within the convoy.

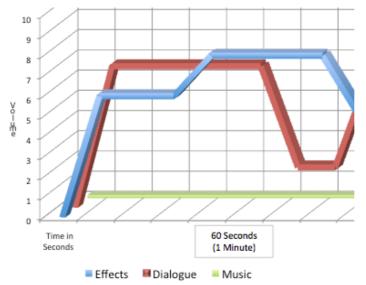


Figure 9: Green Zone, Intrasoundtrack Analysis 1 (2:40-3:40)

The result is unusual for expositional dialogue in an action film, which is normally foregrounded. Conventionally, sound design practice is to ensure "that speech and music [...] is heard with sufficient loudness, clarity, intelligibility, naturalness and with directional realism by the audience" (Klepper, 1972). Although this is evident in this sequence, as the sound designer Walter Murch states, when a soundtrack attempts to articulate multiple tracks with little dynamic range "you get a logjam of sound at the mix," where the audience "can't begin to separate out what they're

supposed to hear" (in Kenny, 1998). Although in this article Murch is making a critique of the temptation of the digital sound mixer to layer up audio tracks, in *Green Zone* the purpose is a deliberate confusion, serves to highlight the chaos occurring around the convoy and offers a sense that Miller is not entirely in control of his environment.

As the convoy drives on, a vehicle horn is foregrounded in the soundtrack, followed by the sound of incoming gunfire. Vehicle horns and the barking of dogs are used throughout the sequence to extend the action beyond the frame. The horn blast is not coming from Miller's convoy, but no other cars are evident and these sounds are utilised to render the unrest that surrounds the convoy. Chion refers to these sounds as a "superfield" which extends the boundary of the film frame and can be used to signify events of dramatic importance (1994: 159). As Miller's dialogue ceases, the visual switches to his point of view, showing the cityscape to the right of the convoy. The camera lingers on a large tower, before a shout from his Humvee turret gunner confirms the tower as the origin of the gunfire, this first-hand report re-broadcast by Miller over his radio – again the carrier of verified information.

In the first section of this sequence, the lack of an establishing shot and the shift from the extreme close-up of the intelligence report to the tight framing of Miller and his men in close-up offers little to situate the characters within the world visually. Miller may be placed at the centre of this world for the audience and for the men in his team, but what he knows of the environment is drawn solely from his intelligence report. The gunfire sits in opposition to his earlier statement of the site having been secured by other US troops, and undermines the intelligence report in addition to serving as a signifier of his own limited understanding of events on the ground.

As the men arrive at a chaotic scene at Diwaniya, looters run across the path of Miller's convoy with anything they can carry. The editing pace is fast, with handheld shots changing every 2-3 seconds. The cinematography is predominantly comprised of close-ups and point of view shots, embellished with whip pans and crash zooms. The soundtrack is situated at Miller's point of audition. Music is absent in the first two minutes of this sequence, increasing the sense of personal subjectivity with a soundtrack dominated by diegetic sound – which forms a barrage of effects – the Walla of the looting crowd, multiple car horns and the convoy itself as it screeches to a halt.

Mise-en-scene and mise-en-bande are unified in this moment, entirely diegetic and connected in point of view and point of audition. The words of the looters are not subtitled, and take on a collective roar. It does not matter what is being said by them, in that dialogue is not encoded here, but takes the form of effects or music, and imbues the film with an embodied feeling of fear and chaos, highlighting the lack of understanding on the part of the US troops. In the screenplay, but cut from the film itself, one of Miller's team reaches for the US Army phrasebook in order to determine whether a muezzin is issuing a call to prayer, or an incoming mortar strike, over the loudspeakers of a minaret (Helgeland, 2010). In the final cut, this scene has been deemed unnecessary. The men's lack of understanding of the Iraqi people, or events on the ground, is clear. Miller and his men disembark from their vehicles and attempt to secure the location. A cut to Miller's point of view shows a wounded and screaming US soldier being tended by a number of other US troops (Figure 10). Occasional cutaways to the looters are also from a point of view, presumably Miller's, with the exception of a single reverse shot point of view from a member of the 101st Airborne as Miller's convoy arrives at the site. The soundtrack continues to be dominated by sound effects reflecting Miller's point of view as he takes in the scene.



Figure 10: Wounded US soldier, from Miller's POV (*Green Zone*, 3:44) Miller shouts out for the officer in charge, and is responded to by the commander of the troops of the 101st, Lieutenant Asira. Asira indicates on a map of the site the position of a sniper, and explains his inability to secure the site, in view of the situation. As Miller approaches Asira, the two hand-held cameras take another position, that of observer. Throughout much of the following part of the sequence, this camera position is consistent with a member of the platoon as it tracks Miller in the third person. The two cameras used in the sequence are primarily orientated with, or roam around, Miller, who is most commonly centred in the frame – a position of authority in *Green Zone* (Figure 11). As Miller outlines the significance of the site as one containing chemical weapons, he decides to secure the site in opposition to Asira's advice. The dialogue shouted between the two men is punctuated by gunfire, closer this time, accompanied by the background sound of the shouting looters and shouted instructions between the US troops. The framing is primarily in close-up or extreme close-up, with few wide shots. Throughout the conversation with Asira, Miller is often centre of frame, although again there is no corresponding reverse shot indicating from whose point of view the shots are being made. In the soundtrack, the point of audition shifts to be that of the camera or observer, suggesting that the audience are hearing the information as the group hear it (Figure 11).



Figure 11: Medium close-up (MCU) with Asira to left of frame, Miller centred (*Green Zone*, 3:58)

The dialogue mix reflects the position of the cameras in some but not all shots, indicating that the sound designer has attempted to reflect the space, but this position of the sound in the mix is inconsistent in the scene and a little unsettling. As the cameras roam around the men, the audience are positioned no longer as Miller but as observer – suggesting another, unseen, member of the MET-D team – and, as Miller and his men learn the state of the situation on the ground, the audience learns in parallel, as if they are a character within the narrative. This marks a significant mutation in the film's framing of audio and visual information,

where the audience is positioned subjectively, as participant, rather than witness,

to the narrative. Green Zone's director of photography, Barry Ackroyd, explains his

approach to cinematography in the film:

We used an A camera that Paul had worked with on the Bournes, [Klemens Becker, who] worked on both Bournes and worked on *United 93* and on the *Green Zone*. A lot of Steadicamming [...] puts you close to the subject. You don't use a Steadicam on a 150-200mm lens. [...] So we'd set up a scene I'd be lighting and I'd be ready to shoot and it would have a Steadicam or hand-held shot or whatever but we'd always want another shot, Paul would say do your thing as well, we want some of that stuff. All I would do was have an optimum 11-1 zoom, which is a 24-290 zoom, massive 11kg of lens on a 5mm camera body with a mono pod underneath the lens to hold it up at shoulder height. [...] I would just follow the action like I'd never seen it before in my life, whip pans to find out what was going on. When someone turns their head to look for something I'd whip pan and all those things appear in the film. (Ackroyd, 2012)

As Ackroyd articulates, the whip pans and crash zooms of his camera are utilised to signify the observational nature of what is being seen by the audience, who initially view and hear the action from Miller's or, later in the scene, from the point of view and point of audition of this unseen (and unheard) member of the MET-D team. This cinematography is matched with the sound design, which is subjective initially to Miller and later to the camera's experience, the combination of which creates an unusually subjective space. Ackroyd notes that the hand-held camera techniques used in the film are not just deployed for the sake of it, but are used to accentuate the positioning of the audience close to the troops' experience, reflecting "how two humans in close proximity relate to one another, and [that] puts the audience in that position of being close to the subject" (in Marshall, 2012). In addition, he acknowledges the significance of the changing nature of footage of the conflict arriving from Iraq, often from the point of view of soldiers on the ground through their helmet-mounted cameras and distributed via online platforms. As Ackroyd explains:

Green Zone had more influence of that. The approach and accessibility and download speeds all those things gave rise to everybody being able to watch YouTube. I don't spend my life trawling through YouTube looking for war footage, but as reference it was there to be got. What did it look like? What was the night scope vision like? That was important for *Green Zone*. That would be kind of referenced. But then I don't feel the camera should be doing what those cameras do, I mean you do a little of that, the following shot you're in the trail of people and you follow. That's very Paul Greengrass. (Ackroyd, 2012)

Philippa Gates notes that this aesthetic, the sense of "the documentary feel of the combat sequences – marked by shaky, hand-held camerawork – offer[s] audiences a sense of immediacy, claustrophobia and realism but, more importantly, the subjective point of view of the grunts" (2005: 300) – what I have defined as the Gulf War Aesthetic. In the creative decisions Ackroyd outlines, the cinematography of Green Zone draws upon transmedia references from news and soldier-originated footage, but is also aware of what Neale describes as the "narrative" or "generic image" of the film (in Stam and Miller, 2000: 160) as sharing the storytelling grammar of other Paul Greengrass films. This aesthetic shares a verisimilitude with both reports from the war itself and earlier action pictures such as the Bourne franchise or United 93. In addition, as Bjerre argues, evoking YouTube as an "authentic mediator of the war, rather than the traditional television coverage, [...] once again points to the multi-perspectival nature of truth and representation" (2011: 228). Christina M. Smith and Kelly M. McDonald explore the problematic nature of this relationship, in describing soldier-originated films as "hybridized participatory media products" which both challenge and critique military purpose while simultaneously mirroring representations of conflict in popular culture such as in war films and video games (2011: 293-294).

Within this first minute of the sequence, Miller's understanding of the situation at Diwaniya falls short, with the site clearly far from secure and indicative of his

experience of the restricted narrative of the film. David Simmons explains, "the syuzhet [arrangement of the plot] not only controls the amount of information but also the source of this information along with its degree of reliability. A restricted narrative is one where the syuzhet is more or less limited to what a character knows" (2005: 8-9). Miller is foregrounded as a character within the film, and initially the camera takes his point of view, but it mutates to an unseen member of his team as his limited understanding of events at Diwaniya is communicated to the audience sonically and visually in this sequence.

Following his decision to engage the sniper, against Asira's advice, Miller briefs his own team and notes disappointedly that only 35 troops and a "butterbar", military slang for a Second Lieutenant, have been sent to secure the site. The screenplay is peppered with such codified military language and, as Erlend Lavik identifies, in HBO's *The Wire* (2002-2008) and *Generation Kill*, the use of such language in a script has a bearing on its sense of realism, and contextualises such shows in a sense of communicating a wider truth (2011). Miller instructs his men to split into two – a reconnaissance team which he will lead in order to spot the location of the sniper, and a second firing team who he instructs to seek a position where they can direct machine gun fire onto the sniper's nest. The camera continues to centre Miller in the frame, and the sequence is consistent, in that there are no reverse shots indicating the ownership of the camera's point of view, again placing the audience in the subjective position as a member of Miller's team (Figure 12).



Figure 12: Medium close-up (MCU) with Miller in centre of frame (*Green Zone*, 4:27)

The positioning of the sound again shifts slightly in the mix, reflecting the position of the camera in terms of its volume levels and retaining the subjective positioning of the point of audition – perhaps suggesting the position of two members of Miller's team – but otherwise the action sequence that follows Miller and his team's arrival at Diwaniya begins to conform more broadly to the conventions of action cinema. Two minutes into the scene, as Miller briefs his reconnaissance and fire teams, a non-diegetic music cue entitled 1St WMD Raid from John Powell's score is introduced. As with the previous cue, the music couples low orchestral strings with a militaristic percussion track, which again matches the fast-paced editing of the sequence and serves as an indicator of the forthcoming action. There is little in the way of variation within the score to either distinguish the film's characters or offer much in terms of dynamism of tone. Instead, the cue serves to highlight narrative tension, pace and drama. The intrasoundtrack analysis shows that there is no one single clearly foregrounded audio element within the sequence, with the dialogue and effects similar in level, and not dramatically different from the volume of the score (Figure 13).

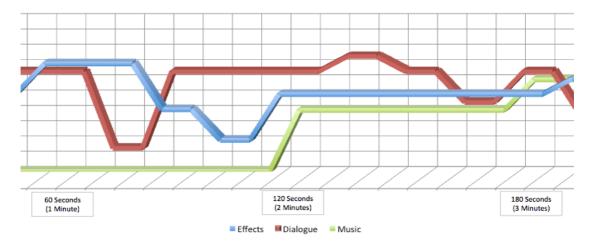


Figure 13: Green Zone, Intrasoundtrack Analysis (3:40-5:40)

The music comes to dominate the following action sequence, foregrounded as the two groups of Miller's troops move into a position from which they can identify and target the sniper, who is situated on the sixth floor of the partly constructed tower block Miller has identified on his approach to the site. The use of Powell's score drives the action forward, unifies the two groups of troops in a single action and highlights the significance of the men's undertaking. Without defeating the sniper, they cannot investigate the WMD. As in the preamble AI Rawi sequence, the action ends as the music cue ends. The cinematography in this sequence takes one of three positions – (1) from Miller's point of view, (2) from the position of the audience's position in the platoon, or (3) framing Miller from positions where there is no corresponding reverse shot (Figure 14). These positions articulate the space that Miller's two teams are moving through, and situate Miller and his shooting team in relation to the tower block. In each of these three positions, the point of audition continues to match the point of view undertaken by the camera.



Figure 14: Medium close-up (MCU) with Miller in centre of frame (*Green Zone*, 5:20)

Whip pans serve as establishing shots, clearly positing the camera as taking a character's point of view, and placing the troops in chaotic framing as the Iragi looters continue to strip all they can from the buildings. The camera moves quickly, and occasionally suffers lens flare from the sun. Julie Turnock notes that this photorealistic effect was popularised as part of the "documentary materialist aesthetic" and is again in keeping with the film's desire to evoke the authenticity and veracity of the image (2012: 161). As the troops get closer to the sniper's tower, Miller's dialogue – shouted over the now-dominant volume of the score, rather than communicated by radio – articulates where the men are and exactly what each member of each team is to do. Miller explains to one of the team his requirement of cover fire in order to cross an alley that falls under the auspices of the sniper, in order to move into a building to the left of the tower in a flank manoeuvre. As the men reach the tower, the cinematography switches to a more conventional film grammar, with a fast editing pace and point of view shots followed by reverse shots, with a third position occupied by the point of view of the sniper.

The reconnaissance team is shown from the sniper's point of view, with a reverse shot from the troops' perspective showing the sniper running across the open windows of the tower block. The music loses its percussion and becomes guieter, foregrounding the dialogue of the reconnaissance team, who identify the sniper's location to Miller over the radio. This is the first time the radio has been used for foregrounded dialogue in the sequence, and signifies the first-hand authority of the information communicated – that it has been seen or heard by troops on the ground, rather than read from the report. The music reaches its crescendo and stops briefly as the two teams fire upon the window. In a brief moment of quiet, a dog barks but is not seen, the two teams of US troops call out to one another and the music begins again. There is no sign of the sniper, who appears to have been killed, although the ominous new music cue suggests to the audience continuing danger as the men move forward to the building itself. Foley becomes dominant as the men move through darkness to the gate of the building and use a mirror to view inside. The implication is that the point of audition remains with the troops, still hyper-aware of their surroundings, rather than shifting to that of the sniper, who no longer poses a threat.

Intrasoundtrack Analysis 2: Bad Intel (10:00-16:35)

As his team moves crates of equipment into the ground floor of the now-vacant tower block, Miller issues an instruction that he "wants everyone in full MOPP". This acronym refers to the US Army's Mission Orientated Protective Posture, the clothing used by personnel as protection in areas where there are potentially chemical, biological and radiological hazards (Boehm, Rimple, Laukton and O'Hern in Tuorinsky, 2008). This equipment is revealed in a following series of jump cuts as the men open the crates, don their suits and seal them, and place

masks over their faces. Foley sound dominates the soundtrack within this sequence, the music having dropped in volume to a low drone creating continuity across the rapidly edited sequence. The click of each clasp and crunch of Velcro as they seal their suits is clear in the sound mix, and sits in contrast to the low frequency thuds of the previous exchange of fire.

This shift in the soundtrack moves the onus from the unity of the reconnaissance and fire teams back to the individuals within the team as a whole through their bodily movements. It highlights the significance of the men as individuals and of their bodies, and reinstates the significance of the chemical weapons to the audience in a narrative that has been dominated by the less abstract and immediate danger of the sniper in the preceding scene. Once the exterior threat of the sniper has been eliminated, the men switch from their role as combat troops to that of investigators. From action thriller, the scene slows to that of detective story. Weapons are put down and replaced by equipment for searching and evidence collection, and the scene returns from the chaos of the firefight to order and procedure. Powell's score loses its rhythm track, replaced by the clicking of the men's radiation detection devices. This sequence represents an unevenness in approach in its shift from the action thriller to one of authenticity. The scene is about care and attention, and of a return to protocol – following an action scene where Miller dispensed with Asira's advice in favour of action in order to reach the perceived real threat at the site, and the purpose of their mission.

Again using a mirror to check the space in front of them is clear, the team breaks a padlocked chain that secures the doors of an adjoining warehouse. Both sounds are again foregrounded in the mix. As the warehouse door is opened, the

cinematography switches from a shot of the men grouped around the door to a black transition, held for four seconds before flashlights illuminate the scene from the point of view of the men. The sound of the door hitting its mounts reverberates, in an unnatural digital reverb tuned to the fading string drone of Powell's music cue. This moment has echoes of the earlier shift from the AI Rawi scene, of action to darkness. Chion notes that "the more reverberant the sound, the more it tends to express the space that contains it" (1994: 83), and notes the ability of sound to exaggerate variations of scale and depth (1994: 191). The use of reverb here extends the actual space of the warehouse, and creates an impression of an otherworldly space distant from the reality of the insurgency occurring outside the warehouse doors. Chion describes this dramatic technique as "acousmatization" or a "process whereby we are made to hear without seeing" (2009: 465), and its effect in this instance is to highlight the significance of the scene to follow, breaking the sequence into three distinct parts. These points of sync both puncture the action and service the much slower editing of the sequence to follow.

The warehouse is lit only by torchlight, with the camera position returning to a point of view – either Miller's or that of the unnamed member of the team inhabited by the camera. Again, there are no reverse shots or establishing shots. With little light, Foley continues to dominate the soundtrack. Miller is revealed by torchlight in his mask from a point of view shot and the music cue begins again very quietly, with Foley foregrounded through the irregular clicking of a Geiger counter and the breathing of the men through the masks – both indicators of their closeness to danger and their reliance on the MOPP equipment to protect them. The men's footsteps and rattling of the equipment continues to echo through the space. There is no dialogue until a series of short bleeps is followed by one of the troops

Page 164

reporting over the radio – again the source of first-hand experience on the ground, rather than the written report – that his equipment is not reporting a reading. As the large doors are opened at the end of the warehouse, the troops remove their masks and hoods and the sound of a helicopter can be heard, alerting the audience to the continuing action occurring outside the very specific work of Miller and his team.

A high-frequency string line in the score accompanies Miller looking around the space, now lit by daylight through the doors. In this part of the sequence, music is used to underline a moment of significance. Royal S. Brown describes music used in this manner as a powerful force that arrives from beyond the diegesis in order to single out an element of the narrative. Brown memorably states that this use of score can serve to consummate a scene, in this instance where music serves to highlight Miller's introspection to the audience (1994: 92). The men identify pigeon excrement on the floor, indicating nothing has been moved recently within the building and toilet parts under a tarpaulin, a nod to the baby food factories falsely reported as WMD manufacturing facilities in the Gulf War. A colleague comments to Miller, "this is no WMD site". When Miller is asked over the radio whether he has found anything, he responds that the "site is empty". Returning outside, Miller asks a colleague the source of the intelligence report. They respond that it was not from the United Nations but from US intelligence agencies, a signifier of the conspiracy narrative to follow.

The warehouse scene sits in contrast to the first half of the sequence. The editing pace slows considerably, indicating the care and attention of the men as they survey the space and the changing nature of the danger they face. This danger is

not immediate, in the sense of the sniper's fire, but the potential of lingering illness brought upon by exposure to the chemical weapons indicated in Miller's intelligence report. The intrasoundtrack analysis demonstrates how the loss of dialogue operates in parallel with the loss of image, this absence denoting the key component of the film's narrative – the absence of the WMD detailed in Miller's report (Figure 15).

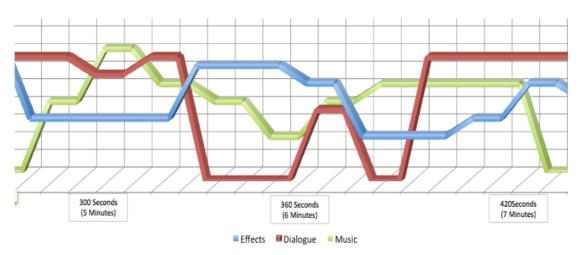


Figure 15: Green Zone, Intrasoundtrack Analysis (7:04-9:14)

Conclusions

This initial sequence sets some of the tone for the rest of the film, particularly in the use of sound and the positioning of the viewer in Miller's space as subjective, the success of which is integral to the film's narrative. As Miller discovers, the situation at Diwaniya is far from secure, and the warehouse does not show any signs of chemical weapons or their delivery systems. The cinematography and sound design more often than not obfuscate the position of Miller and his men, demonstrating the veils of disinformation that surround the space around Miller. The vocal tracks fight with sound effects throughout the sequence, where nearly every line is shouted. This decision on the mix operates in contrast to influential war movies such as *Saving Private Ryan* (Spielberg, 1998), where dialogue that provides important narrative information is foregrounded in the mix, even in the early beach landing sequence otherwise dominated by loud effects. In *Green*

Zone, however, as the information presented within the report unravels, the characters are squeezed into a tight frame and can barely hear the dialogue of their commanding officer. The scene is set up with the Diwaniya report privileged in the mise-en-scene and mise-en-bande as it is read aloud by Miller in the opening seconds of the film, yet the authority of this report – and to some extent of Miller – is undone as the men arrive at the site, with each discovery on the ground serving in opposition to the intelligence of the report.

These aesthetic decisions are echoed in extra-textual cues. The sequence's dateline, for example, situated ten days after the announcement of victory by US forces, operates in opposition to the chaos Miller and his men witness on the ground. Although this is not directly explained by way of exposition in the film, the suggestion in Miller's briefing to his men is that he expects the site to have been secured, suggesting that the war had been won. The sniper is significant, an indicator of the continuing danger of small pockets of resistance to the overwhelming power of the 'shock and awe' campaign which opens the film, and indeed, the conflict itself. These moments are echoed in a small way in the elliptical scripting, Miller's use of language specific to military slang and terminology – "101st", "butterbar" and "MOPP" for example – is not explained within the narrative itself, requiring the audience to make their own connections from actively listening to these cues within the dialogue. Nicholas Chare argues that this requirement of the audience to attend to the soundtrack in this way through dialogue both adds to a sense of realism in a drama and serves as a device for film or television to engage the ear of the audience, positioning "at least equal status to the audio in relation to the visual" (2011: 15-16).

The grammar of the sequence is unusual in cinema, but the positioning of the camera and shift of subjective position within a single sequence is familiar from documentaries since the Iraq War such as *Gunner Palace* (Epperlein and Tucker, 2004) and conflict documentaries situated in the War in Afghanistan including *Armadillo* (Pedersen, 2010) and the BBC series *Our War* (2011-), both of which make use of traditional techniques and helmet-mounted cameras. This notion of two forms of immersion is significant in *Green Zone*, where the change of point of view and point of audition articulates a narrative shift from the internal response of the characters to that which is happening around them, to the significance of the space in which they are situated. This correlates in some part with the narrative of *Green Zone*, as Miller comes to understand the situation in Iraq following the invasion and the film turns to Miller's uncovering of the conspiracy narrative related to the WMD intelligence.

In *Green Zone*, the subjectivity of the narrative is accentuated through its cinematography and complicated by its sound design. The film makes use of hand-held cameras that present scenes in apparent real time, where whip pans and crash zooms are driven by the action around a camera that typically takes the point of view of Miller or members of his team. The mobile camera often reflects the subjective point of view of the characters, rather than occupying an objective position. Editing is extremely fast-paced, and moves between two hand-held cameras. This visual aesthetic is echoed in a dense, multi-layered sound design in which Miller initially occupies an unusually subjective sonic space.

The resultant effect is that for part of the sequence being analysed the audience hears what Miller hears, in a chaotic environment where sound effects –

comprising gunfire, engine noise, vehicle horns, radio traffic, the shouting of Iraqi civilians – are foregrounded and often compete against dialogue, and where Miller is often required to shout to his team. This deviates from the conventions of action cinema, where dialogue that offers exposition or context for a character's action or agency is typically privileged in the sound mix. Unusually, although the visual aesthetic is consistent throughout the scene, the point of audition makes use of more than one subjective position, shifting from that of Miller to that of his men. This subtle mutation of the point of audition within the sequence is unusual and unsettling, effectively positioning the audience as a member of his team unseen by the camera, and further restricting the visual and sonic information available.

In *Green Zone,* these transmedia techniques have been compressed, not entirely successfully, into a single media property. The manner with which these complex visual and sound design techniques are deployed within the film are significant. Their interaction serves to defamiliarise the audience in a film whose use of a wide range of grammar in its visual and sonic aesthetic dilutes some of the transmedia properties of the forms from which it borrows. The film, released six years after George W. Bush first declared combat operations over in Iraq, lacks the immediacy of the news media which occurred contemporaneous to the conflict. The authority of soldier-originated footage in clearly articulated documentary narratives such as *Gunner Palace* is obfuscated by the narrative demands of a fast-moving action thriller.

The use of sound to further challenge Miller's authority within the narrative of an already complex story is undermined in places by an inconsistency in the deployment of subjective sound design techniques, and suffers from Bordwell's

notion of "intensified continuity" (2007: 2). This device requires the point of audition to mutate within scenes and sequences in order to articulate a spatiality or temporary lack of clarity in the visual image, although the intrasoundtrack analysis has revealed moments in the film where this is not operating in parallel with – or unified with – the accompanying point of view.

The impact of the *Gulf War Aesthetic*, although evident throughout the film in terms of Ackroyd's kinetic, hand-held cinematography which focuses the narrative on the subjective experience of Miller and his team, is repeatedly impeded by a soundtrack which operates firmly within the conventions of the action thriller genre. The film's production culture, particularly its reliance on non-diegetic music, effectively undermines the film's verisimilitude. In the following chapter, I will examine the significance of a film which more effectively unifies sound and image and argue that this serves to both advance the *Gulf War Aesthetic* and better reflect transmedia representations of the Iraq War within narrative feature film.

Chapter Three The Man in The Bomb Suit: *The Hurt Locker* as Production Study

Sound design was something Mark [Boal] and I had spoken about early on, in order to complete the canvas. We met with Paul Ottosson, who's a true artist and extraordinary sound designer [...] He also happened to have been a sniper in the Swedish military [...] which added another degree of I suppose realism or specificity to certainly his sound design. We wanted it to be a predominantly sound design movie, not score heavy, and really get the sound design to complete the image. (Bigelow on *The Hurt Locker*, in Bigelow and Boal, 2009)

In this chapter, I use *The Hurt Locker* (Bigelow, 2009) as a case study and test Bigelow's assertion that sound design works to "complete the image" within the film. Using the same methodology as the previous chapter on *Green Zone*, I investigate how the relationship between the image and elements of the soundtrack – dialogue, effects, music and silence – create meaning within the narrative, through an intertextual analysis of selected sequences framed by a study of the production itself through the analysis of primary and secondary research interviews with those involved with the production of the film.

I argue that an unconventional and sophisticated use of sound in *The Hurt Locker* operates in contrast to *Green Zone*, and films of the action and war genres more broadly. The analysis will demonstrate how, in selected sequences, the sound mix and the cinematography and visual editing are unified in an unusual way, and demonstrate how this assists in making sense of a complex visual aesthetic. In the adoption of innovative production practices with the aim of unifying sound and image, I argue, this film is exemplary in its adoption and exploitation of what I have defined as the *Gulf War Aesthetic*. I evaluate how the soundtrack within the film is critical in evoking the spatial and temporal components central to the bomb disposal narrative, and demonstrate how a privileging of sound is evident throughout the development, pre-production, production and post-production

processes of the film. In emulating transmedia representations of the Iraq War from news media and documentary, and newly emergent forms such as firstperson combatant-originated footage, the film can be seen to fully advance the aims of the *Gulf War Aesthetic* in representing verisimilitude and subjective firstperson positions in order to present an immersive audience experience. I will detail that these developments to the aesthetic are, in part, a response to representing the compromised nature of the Iraq War which is complicated by unknowability and complexity – what Joshua Clover has described as the conflict's "unnarratability" (2009: 9).

In order to test this hypothesis, in the first half of this chapter I make use of primary research interviews. In addition, I consider secondary research interviews conducted by others together with an analysis of material used in the film's marketing – what Caldwell describes as "semi-embedded deep texts" (2008: 346-347) – in order to understand the culture of the film's production. In doing so, I argue that there is a significant privileging of sound within the film's storytelling, and detail how director/producer Kathryn Bigelow and screenwriter/co-producer Mark Boal articulated the importance of this to the crew early in the development.

In the second half of the chapter, I make use of a close "intrasoundtrack" analysis of sequences from *The Hurt Locker* and situate these within the wider context of the film's production practice (in Buhler, 2000: 339-359). This allows me, as Nicholas Garnham argues, to analyse "the cultural producers, the organizational sites and practices they inhabit and through which they exercise their power" (in Mayer et al, 2009: 2). In taking this approach, this chapter as a whole considers the spaces between creative and technical practice in pre-production, during

production itself and in post-production. This shift in production practice quite strikingly parallels some of the characteristics I identify of an advanced *Gulf War Aesthetic*, and operates in response to the notion of the Iraq War being difficult to narrativise. I argue that, in the production of *The Hurt Locker*, technical skills and creative input are more commonly blurred than distinct and delineated, and detail examples where roles long considered fixed or easily defined are more fluid. I suggest that the normalisation of these roles has been reinforced by the practice of film critics, traditionally tasked with conducting the majority of interviews with those considered above-the-line during the marketing of the film. As outlined by John Caldwell, these are in fact often "manufactured identities" (2008: 150), whose articulation equates to a form of apartheid between those involved in production and post-production processes.

Methodology

In order to test these ideas, I again make use of "semi-embedded deep texts" (Caldwell, 2008), including the *Production Notes* from *The Hurt Locker*'s German distribution company, which accompanied the theatrical release of the film worldwide in August 2009 (Ascot Elite, 2009), and the later notes from the distributor Optimum Releasing which accompanied the UK DVD/Blu-ray release the following December (Gumbar, 2009). This examination of press and production materials will demonstrate how the producers and distributors positioned the film at the time of its release.

In addition, in order to analyse the operation of the sound department in narrative feature film production, I conducted a series of interviews with those involved in this production. These interviews include the film's director/producer Kathryn

Bigelow (2009), screenwriter/co-producer Mark Boal (2009), film editor Chris Innis (2009), director of photography Barry Ackroyd (2012), sound designer and rerecording mixer Paul N.J. Ottosson (2013), and music composers Marco Beltrami and Buck Sanders (2013). Conducting and analysing these interviews allowed me to present a challenge to current thinking in production studies by making an intervention into the debates surrounding the increasingly blurred lines of crew roles and hierarchies, and the significance of shifts in feature filmmaking informed by transmedia production practices.

In the film, the boundaries between score and sound design are blurred, where sound effects are incorporated into the score, and vice versa, with musical components integrated into the sound design. Ottosson explains that "a lot of the score was built out of sound effects, so that kind of made it easier to merge sound and music" (in Lodge, 2013). I test this claim through intrasoundtrack analysis and draw upon a number of practitioner interviews to explore the reasons for this, in order to investigate how some roles were expanded or blurred from more conventional sound department hierarchies, and the impact this had on creative practice within the film.

The intention behind the practitioner interviews was to subject the film's working practices to analysis, in addition to outlining the creative and management roles and responsibilities in the production of *The Hurt Locker*. Making use of the interviews, I argue that differing approaches to individual roles – particularly those of the composers and sound designer – and the value placed on sound by the producers and director allowed for impactful and dynamic sound design. An initial decision to not use any music within the film, and the later integration of the score

into the sound design ratifies Bigelow's proposition of how sound completes the image, particularly in the articulation of space, place and character. I offer examples including the methods of recording the majority of the production sound on location, significant in the feeling that the action taking place in the film is 'live' and directly connected with the techniques and transmedia properties of news reporting and combatant footage, and examine the effect of this decision on its subsequent post-production design. Mirroring the close analysis of scenes from *Green Zone* in Chapter Two, scenes selected from *The Hurt Locker* will be subjected to Rick Altman, McGraw Jones and Sonia Tatroe's notion of a unified "mise-en-bande" analysis (2000).

Kathryn Bigelow: Sonic Transgressor

Scholars including Laura Rascaroli (1997), Robynn Stilwell (2003), Deborah Jermyn and Sean Redmond (2003), Katherine Barcsay (2008), Heidi Wilkins (2010) and Jean Martin (2013) note that director Kathryn Bigelow has a history of defying classification within her films, with her work often transgressing the boundaries of genre and classical cinema. These scholars observe that this transgression is evident in terms of visual aesthetic, narrative, characters and gender representation in her films. Significantly in terms of this thesis, some also specify sound as a key component of this transgressive practice.

Stilwell observes that the soundscapes of Bigelow's early films are consistently experimental and innovative, particularly in their use of music. She describes the articulation of subjective experience in her analysis of the police thriller *Blue Steel* (Bigelow, 1990) as "remarkable", identifying a complex and unconventional relationship between the film's electronic score and the Foley and environmental

sound effects (2003: 51). The score to the film makes use of electronic drones, driving the ear to the other elements of the sound mix which are in places hyperrealistic or positioned as being heard from the subjective point of audition of the lead character. This serves to reward those who pay attention to the sonic surroundings of the protagonist, presenting clues to other characters' motivations within the narrative. As I will demonstrate in the intrasoundtrack analysis of *The Hurt Locker* in this chapter, music is absent from key moments of action in *Blue Steel*, and emerges after key events rather than in accompaniment. Stilwell concludes that this sound mix deviates from the conventions of action cinema, commonly driving violent scenes as part of the "spectacularisation of the image" (2003: 53). In Bigelow's films, this convention is inverted in order to question the use of music.

Wilkins describes the deployment of sound within Bigelow's filmmaking as operating "in a subversive or unconventional manner" (2010: 98), and argues that Bigelow uses sound to "complement, and sometimes, subvert those generated by the narrative" (2010: 99), particularly through the combination of music and ambient sound. In her analysis of Bigelow's 1991 film *Point Break*, Wilkins argues that the soundtrack is intricately linked to both the narrative and thematic elements of the film. She details the manner with which the camera's movement is dynamically connected to environmental effects of the soundtrack, particularly the use of water linked to the film's surf settling. In her analysis, she identifies many of the characteristics which come to define the *Gulf War Aesthetic* that in addition to blurring boundaries within the war film genre also blur the boundaries of genre in this action thriller. In one scene, water floods the camera itself, and Wilkins identifies how this is used with the Foley of breathing and a range of non-diegetic

music to assist in articulating the contrasting political and cultural relationship between the film's principal characters (2010).

Jean Martin observes how the sophistication of these links is further developed in the use of subjective sound in *The Hurt Locker*. He states that the production recording is not "burdened by music tradition" and "increases the division of labour between the image and soundtrack" in order to reflect the polarised extremities of the environment of the bomb technicians, and their emotional state (2013: 133). The film's composer Marco Beltrami states that the music of *The Hurt Locker* "was more of a textually based score [which] allowed for these things that may normally be in the background to come in the foreground; it became a change in perspective" (Beltrami, 2013). This use of the score is unusual in the war film genre and contrasts with the deployment of the score in *Green Zone*, where composer John Powell describes in Chapter Two his music as having "greased" the cogs of that film's action sequences in order to unify fragmented cinematography (Powell, 2016).

Jean Martin describes the use of sound in *The Hurt Locker* as further augmenting what he describes as the documentary reality of the film – critical to the construction of the space and place – and how off-screen cues are deployed early in the film in order to establish a grammar of sonic themes which later within the narrative assist in the foreshadowing of threat and signification of danger (2013). I argue that this evidences an advancement of the characteristics of the *Gulf War Aesthetic*. Although a number of these recurring sound cues occur off-screen, that is, without a corresponding visual event, they are diegetic and situated within the environment – the call of a muezzin or the sound of a jet overhead. Within *The*

Hurt Locker, I argue that Bigelow's transgression continues in a complex soundtrack enabled through her production practice, which successfully unifies complex visual and editing techniques through an unusually, and equally, complex soundtrack.

Striving for Authenticity

Thomas Ærvold Bjerre identifies a number of combat films that make use of the Iraq War as their setting, including *The Hurt Locker* and *Green Zone*, *Redacted*, *Battle for Haditha* and the HBO mini-series *Generation Kill*. He argues that each marks an important shift in the representation of war through "dismissing both the mythic heroism that pervades World War II films and the disillusionment of many Vietnam War films," in favour of presenting a tendency to move away from earlier genre conventions in favour of a "striving for authenticity" and the focus on the experience of combat itself from the perspective of the protagonists rather than through the prism of a distinctly anti-war position (2011: 223-224). Bjerre's argument builds upon Robert Eberwein's observation of how an earlier cycle of films, set in the Gulf War although made after the end of combat operations, had begun to destabilise generic conventions in their critique of US foreign policy (2010: 123).

In order to satisfy this desire for authenticity, filmmakers making films about the Iraq War have responded with increasingly subjective modes of visual and aural storytelling. I argue that this has been driven by the immediacy and hitherto unseen sense of closeness to these conflicts experienced by audiences consuming television news coverage drawn from embedded reportage and footage shot, edited and distributed via the Internet from the combatants themselves and those affected on the ground. This advanced form of the *Gulf War Aesthetic* is again complex, in that the case study films examined in this thesis again destabilise generic conventions as they make use of transmedia texts to present their explicit critique of the war, articulated by Greengrass in Chapter Two in relation to *Green Zone*, and a more complex and implied critique informed by social realism in *The Hurt Locker*, as I detail in this chapter.

In *The Hurt Locker*, as in *Green Zone*, the sense of subjectivity is achieved in part through its story – based on the account of those on the ground. Barry Ackroyd's cinematography makes use of a range of techniques, including hand-held camerawork, multiple crews and perspectives on each sequence, and the use of crash zooms and whip pans. However, *The Hurt Locker* differs from *Green Zone* in its articulation of geographic place and subjective space though its cinematography and the manner with which the sophisticated soundtrack mirrors these cinematographic techniques. This is achieved through a combination of the deployment of a similarly subjective point of audition in the sound design, with the use of non-diegetic music that defies the conventions of the action thriller in that this technique is rarely deployed in the action sequences but instead foregrounded in the soundtrack in moments of relative calm.

The Hurt Locker was Kathryn Bigelow's second feature film to have been adapted from historical events, and this use of recent history has been reflected in all of her subsequent work. The first, *K-19: The Widowmaker,* was released in 2002 and charted the 1961 disaster that took place on board the titular Soviet nuclear submarine on which 28 sailors died after a leak in the reactor coolant system. The film's screenwriter Christopher Kyle explains: The screenplays were based on a documentary film that National Geographic had the rights to, and on research that Louis, Kathryn, the producers and I gathered during the development of the script. National Geographic Films, as you might expect, provided a wealth of research support while I was writing. After I wrote my first draft, Kathryn and I went to Russia in search of more details. We met with the widow of K19's captain (he had died only a few months before, of cancer that was likely caused by his exposure to radiation) and with several surviving members of the crew. Their personal and sometimes quite moving testimonies of the events helped us flesh out the world of the film. (Kyle, 2013)

This significance placed on maintaining the articulation of the integrity of the

material and on informing the film's historical accuracy through actively gathering

information from those involved is not uncommon in the war film genre, and

echoes the techniques used by Spielberg and Rydstrom in Chapter One, and

Greengrass' comments on United 93 and Green Zone in Chapter Two. Following

the release of K-19: The Widowmaker, Bigelow actively sought out more stories

drawn from real events and experiences and also began work with screenwriter

Mark Boal for the first time, as she explains:

I had a desire to be more topical. *K-19* came from Pravda, courtesy of Glasnost and, for me, *The Hurt Locker* was the opportunity to extend realism as a text within the medium and push film to be relevant, as opposed to fantastical. A colleague, Sally Cox, a senior agent at Creative Artists Agency, introduced me to Mark [Boal]'s journalism. I'd spoken to Sally at length about non-fiction material and had a deliberate interest in journalism and its potential application for film. I'd pursued a number of magazine articles through her, before she introduced me to Mark's work, and I became extremely interested when he told me that he was going off on a journalistic embed to Baghdad with the bomb squad. (in Bigelow and Boal, 2009)

Boal's position as an embedded reporter is specified throughout the Production

Notes (Ascot Elite, 2009), in the first page of the synopsis of the Optimum

Releasing press kit (Grumbar, 2009: 2), and is also referred to in reviews of the

film (Elley, 2008; Sandhu, 2009; Taubin, 2009) and a number of interviews where

Boal and Bigelow refer back to retaining the integrity of Boal's experience and

material drawn from his time embedded with an EOD team in Iraq (Johnston,

2009; Sancton, 2009, Skidelsky, 2009). As an example, in an interview with Scott Tobias, Bigelow states: "a couple things [sic] to bear in mind that are fascinating is that when Mark came back from his embed and his observations, I realized that the real responsibility of the filmmaking here was to keep the film reportorial, keep it as honest, realistic, and authentic as possible" (in Tobias, 2009).

Mark Boal had worked as a journalist for a number of years, and had first worked with Bigelow following her interest in 'Jailbait', another non-fiction article Boal had written for Playboy in 2003. This feature focused on the FBI's Violent Crimes Unit, and the pair subsequently developed it into a crime television series, *The Inside* (Contner, Gaviola, Gerber, Gillum, Gomez, Grabniak, Hooks, Little, Kroeker, Minear, 2005). A second *Playboy* article titled 'Death and Dishonor' (Boal, 2004) was an investigation of the murder of US soldier Richard T. Davis outside his US base by members of his own infantry unit following their return from combat duties in Iraq. This story was also adapted for the screen, where Boal shared a story credit with Paul Haggis, the co-writer and director of *In the Valley of Elah* (2007).

The Hurt Locker screenplay was drawn from Boal's account of his experience as an embedded reporter within an EOD team in Iraq during 2004, which was first published as 'The Man in the Bomb Suit' in *Playboy* (Boal, 2005). Boal had been in communication with Bigelow during his time in Iraq, with the pair discussing the unique nature of the conflict – neither ground war nor traditional conflict, but a "war of invisible, potentially catastrophic threats" where her interest was born of the psychology of the soldiers in the bomb squad and the protocols of their work, particularly in relation to the significance of geography in their work and exposure to danger (Bigelow in Dawson, 2013: 143-144). Prior to principal photography, Boal had stated that he and Bigelow had been driven to tell a story from the perspective of a soldier from a unit which "you can't see on CNN," stating that embedded photographers rarely worked with the EOD units (in Borys, 2007).

The Hurt Locker's story presents a series of episodes in the final days of a threeman EOD team tasked to find and dispose of IEDs in the final days of their tour of duty in Baghdad, Iraq. The team comprises Sergeant J.T. Sanborn, Specialist Owen Eldridge and their leader Staff Sergeant Matthew Thompson, with Thompson the bomb disposal specialist, and Sanborn and Eldridge serving as a support team. As in *Green Zone*, *The Hurt Locker* begins without a traditional title sequence; instead, a single interstitial with a quotation from war correspondent Chris Hedges leads in media res to the first in a series of bomb disposal sequences. In the opening sequence, Thompson is killed in an explosion, and is replaced by Staff Sergeant William James who, in later scenes, unsettles Sanborn and Eldridge with his deviation from protocol and a seemingly reckless approach to their work. The film makes use of an episodic structure, where each episode is accompanied by an interstitial which counts down the days left before the team are scheduled to return home to the US. These episodes offer little causal connectivity beyond the characters learning about one another, but instead account for a day's events for the team as bombs are defused and an enemy sniper team is encountered in the desert.

In an interview, Boal distinguishes his work with Bigelow from the Gulf War and Iraq War movies that preceded *The Hurt Locker*, and the story realised with Haggis *In the Valley of Elah*:

We made a distinction from that film's focus on the reintegration of soldiers from the Gulf back into the home front. We were very specifically thinking

about this war. People talk about *The Kingdom* [2007, Berg], even though it takes place in Saudi Arabia, *Three Kings*, which is primarily a satire, and *Jarhead*, which though it is a true story memoir, the source material isn't so much about the Gulf War, but the psychological state of being a marine sniper. [...] There's not a lot of social realism in film these days, which is a shame, as I've never really understood why those kinds of movies aren't made anymore. Obviously I believed there was an opening there, or I wouldn't have spent the last four years working this, and I was naïve enough at the time to be excited about the value of importing some of the ideals of journalism into film. (Boal in Marshall, 2013: 200)

Boal articulates here his belief that the earlier cycle of films representing the Gulf

War had not fully captured his experience as an embedded reporter, and felt that

there was space within the war film genre to better depict the everyday experience

of troops on the ground in Iraq while still being able to offer social or political

comment on the situation in doing so. I argue that Boal's writing of The Hurt

Locker screenplay and his continuing role with the film's development as one of its

producers is essential to both the integrity of the material and the privileging of

space and spatiality within the final shooting script. This notion of retaining fidelity

to Boal's reportage and experience is referred to throughout interviews around the

film (Axmaker, 2010), and in the Behind the Scenes (Boal, 2009) electronic press

kit which accompanied the DVD release of the film. Bigelow explains:

Mark's script carefully crafted the reader's orientation in any given bomb disarmament sequence. Not only does the film try to humanise that event, but also be slavishly clear as to how important geography is in the process and protocol of bomb disarmament. It had to be very clear where the bomb tech was in relation to the bomb itself, the 100 metres, 75 metres and 50 metres before they reached the point of no return – the kill zone. To achieve that, we needed a very dexterous camera, and it was important to be able to shoot both tight and wide. Tight in order to capture the emotionality, and wide to make sure that the audience had a fundamental understanding of what was going on in any given environment. I guess what I'm saying is that the degree of specificity in the script was both exciting and inspiring, and also so important that we wanted to make sure we could capture all of it. (in Marshall, 2013: 201)

Unlike Green Zone, typified by medium close-ups and close-up cinematography,

Bigelow focuses here on how she could capture this geographical information

visually by shooting from a number of different positions in order to help situate the

characters within the spaces around the bombs. Although she focuses here on the visuals, the soundtrack to the film follows a similarly methodology. Music cues normally precede action and cue the audience to pay attention, but respond dynamically to action, moving to the background as Foley sound and effects are foregrounded as the action commences. As articulated in Chapter Two with *Green Zone*, Foley is significant in demonstrating the physicality of spaces, and the relationship and distance between characters in the EOD team as the bomb technician moves further from his colleagues, and closer to the devices to be disarmed. Without music, this Foley has the necessary space in the mix to be foregrounded. Similarly, dialogue shifts from conversation and shouted instructions to on-the-air sound over radios as the technician moves out of earshot – again often signifying positions of danger within the film, and shifting the audience to the subjective point of audition of the person occupying the bomb suit, accentuated by the close contact microphone in the suit foregrounding the character's breathing.

The sound design moves between external *places* – the wider geographical environment occupied by the characters, with each signifying an implied or explicit danger – and more intimate *spaces* within that geography. These intimate, internal spaces signify relative safety for the men; the soldier's barracks, the EOD team's Humvee and the bomb suit itself. Importantly in terms of this thesis, these smaller spaces shift both visually, with increased use of medium close-ups and close-ups, and also aurally. As Jean Martin observes, this allows the audience to "hear the tiny nuances, when James holds his breath, or breathes irregularly because of his tension" and notes that this mirrors the subjective position of the camera (2013: 128). Both are indicative of intimacy within the film, countered with wide shots with deep focus accompanied by a barrage of effects and environmental sound in the soundtrack.

In a sequence titled Break Out the Suit, music moves dynamically through the sequence. As the EOS team prepare for their first engagement with an IED with their new leader James, they come across an abandoned Humvee. As the team locate the occupants of the Humvee, who are taking cover in a nearby building having come across the IED at a road junction, the music cue builds tension. James puts on the bomb suit and lets off a smoke grenade, obscuring his colleagues' view of him as he walks down the street: the music stops entirely at the sound effect of the smoke grenade exploding. This is followed by a sound of a jet overhead which comes to dominate the soundtrack as Sanborn loses sight of his colleague. As Jean Martin articulates, this blending of music with the effects normally situated in the realm of emotion – with the tone or timbre of the effects – has the effect of anchoring the music more directly in the physical and social world of the characters (2013: 127). He describes this as an "augmented reality," where the soundscape – with actions occurring off-screen in terms of the jet – and the music transforming the space from physical to narrative. The sound then mirrors the opening sequence, shifting from James' point of view and point of audition inside the suit, to his team. The music cue in the sequence is characterised by drones, little percussion and repetitive cues and also presents ethno-cultural Otherness. The music is minimalistic, and deploys both synthesised and real instrumentation, articulating the mechanical nature of the bomb to be defused and the fragile nature of the individual approaching it. Throughout the film, the score operates to achieve the intimacy and verisimilitude, closeness to action and

psychological experience of the characters, in turn functioning to achieve what I have defined as the *Gulf War Aesthetic*.

The Spectacle of Authenticity

Bigelow acknowledges that if a studio had financed the film, it would have been likely to direct her to shoot in Morocco, as *Green Zone* had been: "Certainly, you couldn't have shot it in the Middle East. I can't imagine a studio sanctioning that production, and the way we cast it. What it gave us was complete creative control, final cut and the opportunity to cast emerging break out talent" (2009). This contrasts with the tensions that Paul Greengrass, Barry Ackroyd, and John Powell describe in the previous chapter between a desire for authenticity and verisimilitude and the conflicting demands of meeting the genre conventions of the war film or action thriller.

Although she had scouted Morocco, Bigelow states that the location did not look sufficiently authentic for a film set in Iraq and explains that in order to retain final cut, in a film without major stars as leads, to retain the naturalistic tone of the screenplay, and to shoot in the Middle East, the film needed to be independently financed, with the \$11m budget subsequently raised from Voltage Pictures rather than a studio (Hond, 2009; Dawson in Keough, 2013). The production settled on Amman in Jordan, where the majority of the film was shot and initially edited, as providing a closer architectural substitute for Baghdad and secondary locations within a few miles of the Iraqi border, and in Kuwait. This decision to finance the film independently and shoot on location in the Middle East was central to the film achieving a level of authenticity far greater than that of *Green Zone* and a commitment to the realisation of an advanced *Gulf War Aesthetic*.

This decision to situate the action of the film's production close to the events fictionalised within the narrative - albeit substituted in a country which bordered Iraq – provided a number of benefits in terms of the shoot, particularly in casting from a pool of Iragi extras, actors and performers who had relocated to Jordan following the Coalition invasion of 2003. She explains that "the architecture is perfect, but you can swing the camera 360 degrees, and there's not a bad angle to be had. Your background players and your bit players and your speaking Iraqi parts are Iragi. So that became my modus operandi" (in Tobias, 2009). In an interview with Nick Dawson, Bigelow explains that this 360-degree set allowed for four camera units operating throughout the film in a production which shot each disarmament scene from beginning to end, from these multiple perspectives (in Keough, 2013: 145). John Trafton describes this technique as a "moving" panorama, the merging of two different cinematic traditions: montage and the moving frame" (2012). He details that this montage presents competing gazes for the audience, and argues that this technique presents "a new visual language for war" where "the viewer is surrounded on all sides by a 360-degree panorama field. and experiences the event depicted as a montage of different perspectives" (Trafton, 2016: 54). He determines that in deviating from previous generic practice, The Hurt Locker is the first Irag War film to find a cinematic grammar which matches the battlefield experience of that specific conflict – a significant development of the Gulf War Aesthetic described in Chapter One.

The use of Middle East locations allowed for freedom in the cinematography, but also in the sound recording, which also takes advantage of this notion of the moving panorama Trafton describes. As Bigelow explains, "We had an incredible sound recordist, Ray Beckett, who actually works a lot with Ken Loach, he came back from location with tracks upon tracks upon tracks upon tracks. He usually stayed on location hours after the crew had left and we had wrapped to gather more and more sounds for Paul [Ottosson]" (in Marshall, 2009: 77).

The use of Ray Beckett represents a desire to limit the use of Audio Dialogue Replacement (ADR) in post-production, in favour of retaining the fidelity of the film through the use of as much sound recorded on location as possible. As Ottosson explains to *Variety*, the film makes use of only 10 lines of dialogue not captured on location, contrasting this to the more common 1,000 or so lines replaced through ADR in post-production on other features he had worked on. "Kathryn said, 'We have to try to make the recorded dialogue work, because the ADR just won't.' So every single person on the set was miked, we had two boom mics for every shot, and mics further back to capture the texture of everything" (in Carinacas, 2009).

The employment of a sound recordist skilled in recording production dialogue, particularly in his previous work with Ken Loach, has been noted by both sound designer Ottosson and Bigelow as significant. Ottosson suggests that this use of production sound further assists in presenting the events of the film as reality. "For Ray [Beckett] to actually go out and record [with] the border to Iraq a mile away, they could see Iraq from where they were in some scenes there. So you get that reality, and over time in the movie, all those bits and pieces that were correct to it makes it more coherent and makes it more truthful" (Ottosson, 2013). In the construction of a number of sequences in *The Hurt Locker*, Jean Martin also notes this use of what he describes as creating a "documentary fiction", observing that the first and second bomb disposals in the film play out "almost in real time in a

documentary fashion" (2013: 128), a point which resonates with Bigelow's comments about the on-set culture where the crew repeatedly ran through these sequences in their entirety, shooting with multiple camera teams.

Elizabeth Cowie describes "documentary sound" (2011), suggesting that sound in documentary film is understood to represent utterances of the real or the actuality of the real. She states that in documentary, the camera acts as a subjective prosthesis which experiences the environment, often in real time, and that the soundtrack typically follows this in that it is presented as being found within this environment rather than designed in order to retain a complicity within the gaze/hearing of the audience. In describing this preference for production sound rather than sound re-recorded after principal photography in *The Hurt Locker* soundtrack, Jean Martin appropriates social anthropologist Tim Ingold's notion of taskscape in describing the significance of capturing the sonic activity as the camera teams capture the visual environment. He differentiates this use of the sonic taskscape of the soundtrack from Murray Schafer's definition of "soundscape" (1999) by arguing that a taskscape is an environment defined by an activity occurring in time. He states that this effectively furthers the reality of the environment on screen, presented as whole sequences played out in large spaces, and argues that the effect of locating sound in its environment can "create a sense of place on a visceral, emotional level" for an audience (2013: 125-126).

Although fictional, and making use of the complex cinematography and audio postproduction techniques of narrative cinema, this terminology is helpful in understanding how *The Hurt Locker*'s soundtrack makes use of documentary techniques to iterate the actuality of the environment and experiences of the

Page 189

characters during principal photography. This activity, although focused on throughout the press materials and interviews related to the film, is significant not solely in the soundtrack itself but in understanding the production culture in the film where creative and logistical decisions are made in order to retain integrity to the environments in which the characters are operating. Similarly, the use of complex and unconventional techniques in the film's post-production sound design and mix effectively recreate the conventions of documentary production practice in order to further this sense of actuality. I will analyse these techniques in the intrasoundtrack analysis later in this chapter.

Writing about *Saving Private Ryan*, Geoff King describes the desire of filmmakers to distinguish between what he deems "serious" war films from traditional genre conventions as formulating a "spectacle of authenticity" (2000: 119). King cites Spielberg in the opening of his article, where the director states that the use of practical effects within the film had created a sense of a situation for the cast and crew of "being under combat conditions" (in Magid, 1998: 62). Constance Balides describes this as a "cinema of immersion", where "spectators are invited to experience ephemeral effects as if they were inside diegetic events" (2000), which Michael Hammond argues marks a development in combat films of the late 1990s typified by *Saving Private Ryan* (2004). Writing about the use of physical, rather than computer-generated, effects in the opening sequence of Spielberg's film, Hammond characterises this as a "special affect" where shot construction, camera motion and colour grading all emulate historical footage. This, once combined with the uncertainty of documentary techniques such as crash zooms and whip pans, presents a recreation of reality as an affect which plays down its artifice to the

audience. The "affect" is to accentuate the documenting of actuality, as opposed to the computer-generated explosions which characterised earlier war films (2006).

The narrative of *The Hurt Locker* allows for a development from the audio and visual staging of Spielberg's film, where the particular specificity of the bomb suit and the singular work of the EOD team divorce them from the wider events of the Iraq War. This emulation of events drawn from Boal's experience in the field, the use of physical effects in the film and the cinematographic decisions which mirror documentary techniques in *The Hurt Locker* echo earlier war films, and these techniques are furthered by the use of taskscape sound, the moving panorama of Bigelow's 360-degree set and the four camera units, all of which further foreground the use of both a subjective point of view and a clearly defined sonic point of audition. In addition, the actors in the film note that the decision to shoot in Jordan places their performances in an unusual position, culturally. Boal recalls that:

Jeremy Renner talked about how, at a certain point, it didn't feel as though he was acting at all, but reacting. After all, he may have been playing a white guy in the Middle East but, whether he was an actor or not, when he stopped acting he was still a white guy in the Middle East, standing amongst a crowd of people who didn't speak his language and with a cultural gap that's hard to bridge. (in Marshall, 2013: 202)

There is a distinct difference between what Mark Carnes describes as "reel" history (2004: 47), the representation of how the past looked, to *The Hurt Locker*'s representation of a conflict still ongoing at the time of the film's release. Rather than the historically concrete events of the Normandy landings in *Saving Private Ryan*, the audience of *The Hurt Locker* were exposed to a stream of moving image and audio contemporaneous to combat operations taking place represented daily in news reportage and other footage being generated by those involved in the continuing conflict of Iraq. Although I have tracked the impact of transmedia

properties on what I have defined as the *Gulf War Aesthetic* from the earliest narrative cinema which represented the Gulf War in Chapters One and Two, I argue in this chapter that *The Hurt Locker* brings together all of the individual characteristics I have identified in the *Gulf War Aesthetic* in a unique way. Utilising data from practitioner interviews, which have provided detailed insight into the production culture of the film, and combining these with academic perspectives on the characteristics that cohere to privilege a sense of authenticity in the film, it is possible to see how, from the outset, the production of *The Hurt Locker* sought to blur the conventional boundaries of genre and further develop the *Gulf War Aesthetic*.

The sequences under examination from *The Hurt Locker* have been selected because they offer examples of the use of unconventional filmic language. In the nine-minute opening sequence – titled A Beautiful Neighbourhood on the DVD – I examine how the soundtrack sets the tone of the film and outlines for the audience the importance of space in its articulation of danger within the narrative – particularly in the relationship between the bomb technicians of the EOD team featured in the film and the explosive devices they are tasked to disarm or destroy. The second sequence occurs later in the film where, having met a team of British private military contractors in the desert, the EOD team and these contractors engage in an exchange of fire with an Iraqi sniper team at a distance of close to a mile. Both are representative of the aesthetic and narrative decisions indicative of the film as a whole, and share a number of other characteristics.

The combination of real-time narrative and the dispatch of high-profile actors – Guy Pearce in the opening and Ralph Fiennes in the sniper sequence – further differentiates the film from the conventions of action cinema. This is accomplished by privileging a sense of authenticity in the narrative, which corresponds with techniques that defy the conventions of sound and visual editing identified by King as having the "impact aesthetic" more commonly associated with action cinema and earlier Gulf War films (in Williams and Hammond, 2006: 335). In both sequences, the traditional delineation between production sound – such as dialogue – and post-production sound – commonly Foley and effects – is broken. In addition, the traditional modes of differentiation between sound that is diegetic, such as effects, and non-diegetic, such as the score, are also blurred.

Importantly, in both of the scenes under examination, the traditional convention of the sound of explosion and gunshots being syncretic – that is, matched to the action on the screen – in cinema is also broken. In action cinema and other war films – including late-cycle Iraq War films such as Green Zone – sonic events and corresponding visual events are typically syncretic, or occurring at the same point in time, and clearly connected in the filmic space. In these sequences within The *Hurt Locker*, however, explosions are seen before they are heard and muzzle flashes are shown seconds before the accompanying sound of bullets passing or hitting their intended targets. This serves to accentuate the importance of the geography in terms of the distance between combatants, the importance of time and real-world physics, where light travels faster than sound. As such, the film subverts a number of generic conventions in the design of its soundtrack, and the manner with which the unification between soundtrack and the image within The Hurt Locker privileges spatial relationships. Using intrasoundtrack analysis, I analyse the manner with which this is matched to the accompanying image, and argue that this places the audience in an unusually subjective space and

constructs a greater sense of verisimilitude, or perception of realism, reinforcing the message from the production materials.

In addition to this consideration of the soundtrack and its relationship with narrative, I show how the film's complex cinematography and sound design furthers this complication. While the use of multiple, mobile cameras is aesthetically similar to that in *Green Zone*, I argue that their use is entirely unified with the design of the soundtrack in *The Hurt Locker*, which also takes a number of different positions, and is as mobile as the cameras, rather than presenting a single point of audition. Throughout each of the scenes under examination, extreme long shots, whip pans and crash zooms are utilised to signify the observational nature of what is being seen. Unusually, this cinematography is matched with production sound, the origins of which are often represented as being at the location of the camera rather than a central and unified space more common in genre cinema. This creates an unusually subjective space from the point of audition. In doing so, I argue, the film offers an advanced articulation of what I have defined as the *Gulf War Aesthetic*.

Completing the Image with Sound

Sarah Atkinson observes that audiovisual conventions deployed in cinema "have a tendency to be inflexible and unchangeable" and even the potential for the multichannel surround soundtrack in terms of delivering narrative is rarely explored, as to "intentionally override the restriction would invariably foreground sound as the primary aesthetic of the cinematic experience" (2011: 10). In *The Hurt Locker,* however, this is exactly the stated intention of the filmmakers, and the interviews in this chapter reveal that this was evidently followed through in the development of the film and its culture of production and post-production.

The opening sequence – which is subjected to an intrasoundtrack analysis later in this chapter – is dominated by a soundscape designed by Ottosson, rather than a traditional sequence with composed title music. Jean Martin argues that the effect is of "entrusting an important role to sound in the construction of meaning from the very beginning of the film, and relieving the establishing sequence from some of its functions through sound offering a sense of place without the need for an initial wide shot" (2013: 128). This introduction to the film echoes that of *Green Zone,* in that it privileges sound from the beginning and signifies that important information will be communicated via the soundtrack in addition to the visuals and requires the audience to listen to the film in order to garner important narrative information.

As Gianluca Sergi identifies, given that sound is often not necessarily the most expensive element of filmmaking, "the gap between low-budget movies and bigbudget movies is not as wide as one might logically assume" and, in terms of effective use of sound, budget is less important than the communication and collaboration between the director and their heads of department (2004: 142). As articulated in many of the interviews conducted with those working on the production of *The Hurt Locker*, this communication was evident from the early development of the film. In *The Hurt Locker*, this privileging of sound occurred from the script stage and serves to unify elements of the soundtrack with the cinematography in order to further the film's verisimilitude. This was achieved through the early integration of a number of traditionally separated film sound roles and practices, and the importance placed upon sound in the narrative by the

Page 195

director and co-producers throughout the development, production and postproduction of the film.

Unusually, much of the dialogue, Foley, effects and environmental sound deployed in *The Hurt Locker* was recorded during the production, rather than being added in post-production. This has been raised in a number of interviews and features around the release of the film (Caranicas, 2009; Jackson, 2010). This distinction from conventional filmmaking practice and sound recording and mixing workflow is significant to the film for a number of reasons. As Ottosson explains, it is common in action films for actors to 'loop' or re-record their production dialogue in the controlled environment of a recording studio some time after principal photography, due to the typically poor quality of recordings obtained on set (2009). He confirms that an Automated Dialogue Replacement (ADR) session did occur two months into the post-production process for *The Hurt Locker*, but the actors were so far from the experience in the Jordanian desert. Ottosson states:

We stopped after twenty takes of one of the guys and Kathryn said, 'well, I don't think we're ever going to get this'. So we had to figure out a way of fixing it going with syllables and consonants, whatever we had [...] I think there were five principal ADR lines in the whole movie, for me, unheard of. It is 100% unheard of. I have never been on a movie like that. I have been on movies where we've shot maybe 1,000 lines, and I've used six or seven hundred lines. Here we used five, when I tell people that they can't believe it, they think we're lying or something. (Ottosson, 2009)

Ottosson suggests in a later interview that this lent a further sense of authenticity to the film, as the actors delivered their dialogue in a realistic geographical and aural space (Ottosson, 2013). In an interview with Blair Jackson, Ottosson states that he also made use of a great deal more Foley than he ordinarily would in order to assist with the differentiation between the main character and other actors in the film: Even when the camera's moving, I was doing things mixers usually would not do. I would pan dialog and Foley with him, so I needed a lot of coverage because often they stick Foley in the center and it lives there because that's where the dialog is sitting and usually people don't pan dialog because it becomes a nightmare. But I said we needed to do that because we're playing it from the perspective of you being this person, so when the guy is talking from the left I want to hear it from the left, and then when the camera moves over we bring it into the center, and whatever Foley we had needed to follow that. But then we also needed Foley for the guy on the right side, so mixing it was not easy because you had to really differentiate what sounds came from where [...] I always tried to convey the feeling of the person we were with [in the film]. Technically, I think it is a very different mix from what most are used to. (in Jackson, 2010)

A distinguishing feature of the film's development and consideration of the

soundtrack is Bigelow's initial intention to forego the use of non-diegetic music in

The Hurt Locker (Beltrami, 2013). This commitment to sound is confirmed by

Ottosson, who was brought on board as sound designer at script stage:

It was very unusual in how early I came on. I'd just finished *Spiderman*, and I got a call. A producer of this movie said it was to have very demanding sound and Kathryn and Mark wanted to see if I was interested in working with them. I read the script and went up to the house and we talked a little bit about it and Kathryn broke this news, she said you know we have no intention of having music in the movie. We want it to be a movie that is very much placed in reality and how the war situation makes you feel. They felt that going out with a lot of strong music in scenes would make it feel like we were watching the movie, rather than being there with them. I had been in the Army in Sweden as an officer and had quite a background in how things should really sound, and how those situations make you feel. (Ottosson, 2013)

Composers were eventually commissioned, initially for two scenes, and twelve

music cues from Marco Beltrami and Buck Standers appear in the final film,

though these are deployed unusually. As Beltrami explains, it was felt that "if the

music worked really hand in hand with sound that maybe the music could be used

to intensify the emotional experience without overtly drawing attention to itself"

(2013). Bigelow compromised on her initial intention to not use any music in The

Hurt Locker, as Greengrass had in United 93, but the music in the film is

introduced through the sound design, and in cues which transgress the

conventions of the war genre. The importance of maintaining the integrity of the

source material is repeatedly referred to in interview, with the screenplay having originated from Mark Boal's experiences as an embedded reporter, although the significance cannot be discounted of his continuing role as a co-producer and key collaborator on the film in terms of the visual and sonic articulation of spatiality within Bigelow's realisation of his script. As Bigelow explains in relation to the sniper sequence subjected to an intrasoundtrack analysis later in this chapter:

On the page, scenes such as the sniper fight read not only in real time, but offered a highly-nuanced examination of that kind of combat. The high degree of specificity in Mark's script was both exciting and inspiring and I really wanted to protect that aspect, and make sure we could capture it all. In my storyboarding of the scene, I really wanted to protect that aspect not just of the engagement, but the almost unendurable wait for yet another moment of engagement. I wanted to make sure that the beats were there, and that the silence was as excruciating as the surprise of the engagement. That aspect was really palpable on the page and something that the film's cinematographer Barry Ackroyd, Mark and I spoke about in the desert - that making sure that both the engagement and the wait were equally weighted. (Bigelow and Boal, 2009)

As Bigelow describes, the sniper sequence takes place almost in real time and makes a visceral use of Foley with a complex sound design and mix in which music only emerges when the action is over. All of the bomb disposal sequences which occur throughout the film take place almost in real time and foreground Foley sound – of equipment, clothing and tools used in bomb disposal, and also highlight the breathing of the EOD technicians who must wear the cumbersome bomb suit. This is communicated on the soundtrack both through the protagonist's point of audition from within the suit itself, and by the on-the-air sound as he communicates over the radio to his colleagues.

Intrasoundtrack Analysis 3: A Beautiful Neighbourhood (00.00–10.00)

The ten-minute opening scene sets the tone for the rest of the film, particularly in the use of sound and the placing of the viewer in a subjective space, the success of which is integral to the film's narrative construction of the danger surrounding those tasked to neutralise improvised explosives. The sequences establish the importance of sound in the film as a whole, which is characterised by the relationship between the image and soundtrack and the specific deployment of the elements of music, Foley, dialogue and effects within that soundtrack, as well as the manner with which it is mixed. As I have stated, much of the diegetic sound – dialogue and otherwise – was recorded during the production, rather than making use of post-production sound recording and design more common to the genre of films set within the Gulf War and Iraq War, or more broadly in action cinema. The use of the original music score by composers Marco Beltrami and Buck Sanders is also distinctive in this soundtrack of the sequence, particularly in its relationship to spot effects and diegetic music within the filmic space.

The scene starts unusually, as the opening shot of the film emerges from a bleached out and glitching image from a camera that tracks inches above dusty, litter-strewn ground. This is initially disorientating, in that it is unclear as to whose, or what, point of view is being represented. A cutaway to a dolly shot tracking the source of this point of view reveals that the camera is mounted on a Remotec Inc HD-1 bomb disposal robot, which races parallel to a set of railway tracks in the centre of a dusty and litter-strewn city street. As the camera cuts to a medium shot of civilians being directed by US troops away from the direction in which the robot is travelling, a subtitle announces the location as Baghdad. An extreme wide shot from a crane above the highway crash zooms to a dusty railway siding, revealing the moving robot as being approximately the size of a small dog.

The arrival of a Humvee and Ratel Armoured Personnel Carrier signify the arrival of more US military to the location. As the infantry dismount from their vehicles, a droning music score emerges from the previously diegetic Arabic chatter and a muezzin's call. The use of Arabic – particularly in the muezzin's call to prayer – situates the location as the Middle East; what Schafer, Chion and Anahid Kassabian have described as "representative speech" (1994, 1999, 2001), an indicator of racial or cultural Otherness. This music is supplemented by a regular low thud, which carries the connotation of a heartbeat. Traffic noise and the sound of car horns are both amalgamated into the droning score, which is in a similar key, thereby blurring the boundary between diegetic and non-diegetic sound. The arrival of an Iraqi police vehicle introduces a siren into an already chaotic sound mix. Cutting back to the robot camera, civilian footsteps move across the frame. As the robotic vehicle reaches a suspicious package, the first line of dialogue is spoken by a principal character, Anthony Mackie's Sergeant Sanborn, who utters "Approaching". This is spoken during extreme close-ups, first of his face and then of his gloved hands on a console, establishing him as being in control of the robot. Shortly afterwards his colleague, Staff Sergeant Thompson (played by Guy Pearce), announces, "I think we have touchdown".

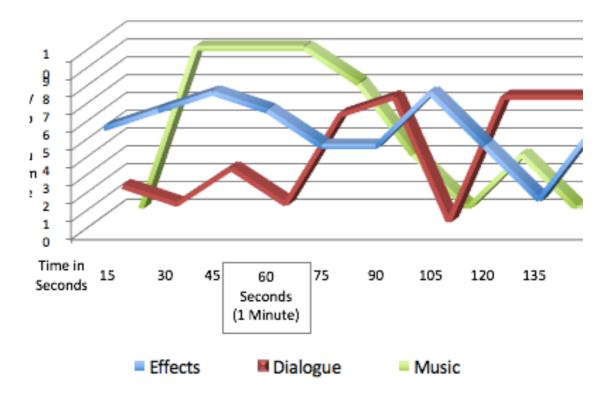


Figure 16: *The Hurt Locker*, Intrasoundtrack Analysis (0:00-2:15)

The intrasoundtrack analysis of the first 90 seconds of *The Hurt Locker* shows a complex and dynamic sound mix initially dominated by effects, and that remain consistent in volume throughout much of the scene (Figure 16). Non-diegetic music initially emerges from the sound effects and encompasses some elements of those diegetic sounds that appear to emanate from the environment as the scene progresses. Unusually there is a little expeditionary dialogue until the main protagonists are shown, and this creative decision, coupled with the film's lack of a traditional title sequence and initially frantic visual language foregrounds sound in the articulation of what is happening, and the geography of the environment. These opening seconds of the sequence maintain a fast editing pace, with over 24 edits drawn from a dozen different camera positions. These shots come from predominantly hand-held camerawork, although they are supplemented by shots from the POV of the robot and a crane shot. The chaotic nature of the scene is further accentuated by the use of crash zooms and whip pans. The film's director of photography Barry Ackroyd explains:

What Kathryn wanted was to bring [...] all those years of documentary, and I have got to say at the same time it's about humanism, and it's about understanding human life. It's not like making a film, its capturing life and I think that's intensely important if you want to make intensely important films. It's not a documentary. It's all constructed, and no one is in particular danger at any one point. We went to a good location and we could use that street pretty much as wide as we liked, but most of the time you still want to get in close, you want to have that sense of closeness. (Ackroyd, 2012)

Ackroyd's comments here articulate the political dimension of the *Gulf War Aesthetic*, detailed earlier in this chapter by *The Hurt Locker*'s screenwriter Mark Boal and in Chapter Two by Paul Greengrass, who both argue that the role of cinema in the telling of the Iraq War is to present a more complete story than that articulated by the news media. In the film's *Behind the Scenes* extras, Ackroyd describes his approach as placing the camera as a participant in the scene (Bigelow, 2009). Typically, as he describes, the camera would be positioned in the middle of the scene itself, but he preferred to be at the edge of the scene and participate in what went on. Bigelow describes working with Ackroyd with four discrete camera units in scenes (doubling the more conventional A and B cameras of *Green Zone*), allowing her to shoot the action completely surrounded by cameras (Boal, 2010). Bigelow told Sean Axmaker: "We even blocked it in such a way that many of the cameras didn't know where the actors were and the actors didn't know where the cameras were, and everything was in motion and in flux, so everything was constantly surprising, just like the soldier in field doesn't know" (2010), a point reiterated by the film's lead actor Jeremy Renner in a number of interviews (in Boal, 2010).

This production practice is explicitly designed to immerse the actors within a chaotic space in order to elicit a reactive performance which mirrors the experience of war. The argument presented in the promotional and press materials surrounding the film suggests that the actors are not entirely in control of their performance, and that control has passed to the filmmakers. Deborah Jermyn and Sean Redmond connect Bigelow's practice as a director to the "authorship traditions of European Art Cinema" (2003: 3), and *The Hurt Locker* continues in this tradition. Throughout her work, Bigelow has storyboarded her films and, in an interview with Gavin Smith, describes an approach to action sequences which deviates from conventions through privileging the geography of space around characters, using coverage and a variety of angles, rather than a more typical compliance with traditional axes of camera position (in Keough, 2013). Bigelow's description of the capturing of long scenes and potentially unbroken point of view

shots in *Near Dark* (1987), *Point Break, Strange Days* and the TV series *Wild Palms* (Bigelow, Gordon, Hewitt and Joanou, 1993) can be applied to the shot choice and construction of the edit in *The Hurt Locker*, "I'll always have two or three cameras working simultaneously [...] to get the tie in, so I'll get behind the subjected with another camera so you can see the geography" (in Keough, 2003: 21).

It is critical to The Hurt Locker that this sense of cinematic realism articulated by

Ackroyd through his cinematography is entirely underpinned by a similar 'three-

dimensional' approach to the recording and reproduction of sound within the film.

Bigelow describes the film as one that operates in 360 degrees, and privileges the

experiential over the observational:

You want to make it as real and as authentic as possible, to put the audience into the Humvee, into a boots-on-the-ground experience. How do you do that? You do it by finding a look, a feel and a texture that is very immediate, raw and vital, and yet also is not aestheticized. I wanted, as a filmmaker, to sort of step aside and let just the rawness and integrity of the subject be as pronounced as possible and not have it feel sort of "cinematic" [...] We were constantly creating a fluid set that was alive and active in 360 degrees from a camera standpoint, a production design standpoint and a performance standpoint, so we were basically re-enacting with each take, from beginning to end, a bomb disarmament. You are looking at it from different perspectives, but it all is cut as a continuous linear whole. It's not broken into different stories from different points of view. (in Dawson, 2010)

Bigelow indicates here that these production decisions further develop the Gulf

War Aesthetic as a raw, realist and transmedia aesthetic. Unusually, this freedom

allowed by documentary camera and the use of location filming in Jordan is also

extended to the sound design. When Ackroyd's documentary camera whip pans

from one character to another, the audio follows. Ottosson explains:

When someone talks to you from the left side, you hear it clearly from the left side and I think it helps you to put you in a space, and a position where I think makes you more I shouldn't say nervous, but you get more tense because there are more important sounds in a different sound space that

you're used to. Here, the stuff that is off the screen or off to the sides is even important, something on the left side and something on the right side and I think it jars your hearing in your mind and becomes stressful. It also becomes very real, because when you are in those situations – if there's something left you need to react to the left because it could be something that could kill you. (Ottosson, 2013)

Martin Barker outlines a number of shared elements of films depicting the Iraq War – the "styles, themes and narrative moves – that go to make up a cinematic space within which film-makers feel that they can create an 'Iraq War experience'" (2011: 28). In addition to narrative themes that focus on the presentation of soldiers as ordinary people, Barker outlines a series of aesthetic decisions which amount to a rough image, reflecting the soldier-originated footage from the conflict. Christian Christensen presents this footage as offering a "clean war" through the US Defense Department-sanctioned MNF-I (Multi-National Force – Iraq) YouTube channel not dissimilarly to previous conflicts, most notably the Gulf War. He argues that unofficial clips uploaded from troops on the ground in the Iraq War undermine this 'official' footage, providing "opposing views [and] presenting a 'dirty' war" (2008: 167-168), or Barker's notion of a "rough" image.

Karii Andén-Paradopoulos argues that these two juxtaposed sets of footage changed perceptions of this conflict compared to those that preceded it, and serve to "subvert traditional forms and standards of war reporting" (2009: 17), as examined in Chapter Two. She notes that the "reality effect" presented by the authenticity of this footage lends a "heightened sense of veracity and immediacy to their representations of war [...] underscored by the soldier's personal points of view and the often raw emotionalism and poor technical quality of their amateur videos" (2009: 26). She also argues that this combination of soldier-originated footage presents soldiers as vulnerable. As Bigelow notes:

I wanted a very dexterous camera, so we chose Super 16 as our format. I've always worked with multiple cameras so that wasn't in and of itself that challenging to choreograph and stage, certainly once you've board it out and you have rough schematic in your head. Working with [director of photography] Barry Ackroyd it just all becomes a very exciting process of execution. (Bigelow and Boal, 2009)

The soundtrack matches this complexity, with a number of points of audition, or subjective positions, matched to the camera position. These include the perspective of the bomb disposal robot itself and an accompanying dolly shot showing this robot in motion, a crowd of civilians being moved away from a suspected IED, two separate groups of US soldiers, a roadside, a butcher's shop and the bomb disposal team. The opening sounds of servos and tracks on gravel are initially confusing, although clarified seconds later with the dolly shot that depicts the robot, and still further with a later wide shot from a crane which establishes the geography of the scene. Much of the sound that follows acts, in Michel Chion's terminology, in "syncresis" to visual events (1994), sound that adds value to the image through appearing to emanate naturally from the events portrayed on screen. The initial muddle of instructions – some shouted through a bullhorn – and disorderly civilian chatter, both clearly spoken in Arabic though not subtitled, precedes English dialogue that arrives with the US troops at the location and the emanated shouts of "Go", repeated as they dismount from their vehicle. Ottosson explains the design of sound in this sequence:

With Mark being so immersed into that world, not being a soldier himself but being around them enough and being in situations where he has the same knowledge of the situation. He was great to have those discussions about the sound, where we would talk scene by scene. They are pretty long scenes within the movie, when they go to the first bomb, he was thinking how would this work in real life and not quite real time but most movies would have cut those scenes a lot faster and a lot shorter. We wanted to see how does this actually work, to try it out not having music for twenty minutes is a little bit hyper-real but with Mark and Kathryn sitting there talking about the reality, trying to stay true to what that script is telling us and what those spaces would be that we are in, how you perceive those spaces. A lot of times there are a lot more sounds than maybe there would have been and sometimes less sound but the intention was to make you Page 205

feel like the character. (Ottosson, 2013)

Initially what unifies these locations is the sound of an Iraqi voice through a loudhailer, unseen but understood to be part of the diegesis due to its varying volume depending on the position of the camera. The dynamism of the mix is, again, driven by the importance of offering a subjective point of audition. As the unit's robot reaches the bomb, the call to prayer of a muezzin sounds, carrying the tonal quality of the initial loudhailer. This call of a muezzin – amplified in some way, and initially situated at the same level of the volume as the non-diegetic score – remains acousmatic throughout the sequence, with no visual cue to its origin. The sound recedes into the musical drone heard earlier in the sequence, which re-emerges as the non-diegetic score fades. This is therefore reintroduced as the first element of theatrical speech is heard, the first line of dialogue issued by Sanborn, which also corresponds with the sound of a jet passing overhead, again unseen. The on-the-air sound and the sound effects of these war fighting technologies - such as the movement of the robot and the helicopter flyover accentuate the characters' discomfort, the impending danger and the significance of distance, together with extending the production value of the sequence through the later sound of the unseen jet. Ottosson explains his exchange of sound files with composers Marco Beltrami and Buck Sanders:

They received all my sounds in stereo, but I also sent them individual sound files, this would be the mix down of a reel for their reference. They would use it for inspiration and see how their music would work with it. I sent them a mix of broadcast wave files in stereo. Actually it might have been a mix in 5:1, but I also sent them individual sound files from the city, like helicopters, a call to prayer in Iraq or the call to the mosque, alarms, car horns, and other sounds. They made these sounds a part of their score, so the film music is very organic based in the real world of Iraq, just like being there. That's how we managed to bridge the music and the sound effects together seamlessly, so you're not aware of where a lot of these cues start unless we really wanted it to feel like a particular part like the sniper scene. The music needs to take over at this point and give us emotion, but there are a lot of things you might not even be aware of that is music because they

sound very much like a part of the sound design. (in Koppl, 2010) As soon as this dialogue from the principal characters begins, the non-diegetic music also fades to a percussive heartbeat, before disappearing entirely. The muezzin's call continues as the men plan how they will engage with the IED, highlighting the men's difference to those around them and the Middle Eastern, Muslim location. The call serves two functions, which Altman describes as pseudonarrative, serving to connect narrative events and to join atmospheric effects in order to assure continuity and a sense of space (2000: 353).

The sound of servos and tracks as the robot is moved around the suspect package to reveal the IED, which the men identify as a 155mm artillery shell, punctuates the dialogue between Sanborn, Thompson and their junior colleague, Specialist Owen Eldridge, played by Brian Geraghty, as they consider how they intend to initialise a controlled explosion. As the men bring the robot back to their Humvee in order to attach a trailer loaded with detonation charges, the image cuts to the movement of civilians away from the package. As the Iraqi police and US troops cajole the crowd into moving away from the perimeter, a loud drone of nondiegetic score briefly returns, corresponding with an extreme long shot of the men and their Humvee through a wire fence (Figure 17).

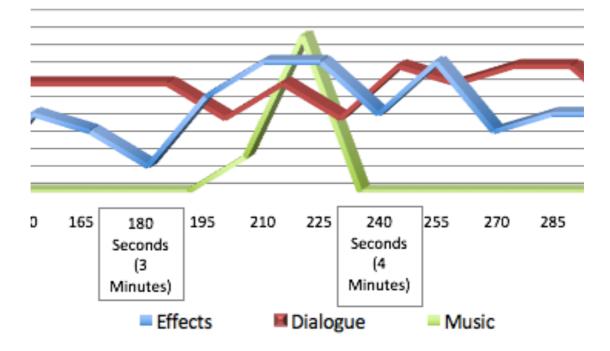


Figure 17: *The Hurt Locker*, Intrasoundtrack Analysis (2:45-4:45)

The intrasoundtrack analysis shows this peak of non-diegetic music that serves as a marker of danger, where rhythmic low thuds carry the connotation of a heartbeat – an effective use of sound to heighten tension. Although in this sequence the music also serves as an indicator of the team being observed, there are no corresponding shot matches with who is doing the observing, either from the point of view of the EOD team or in a wider shot of the location from which the film later reveals the team are being observed. As this music fades, so does the diegetic call of the muezzin.

As the men watch the robot return to the bomb, the sound of the robot dominates the mise-en-bande, before a wheel on the trailer breaks. The men return the robot to the Humvee and dress Thompson in protective armour; the "bomb suit" of Mark Boal's original article from which the film takes its source material (2005). As Thompson is locked into his helmet a helicopter passes overhead, his dialogue comes on-the-air – through a two-way radio. As Thompson walks towards the bomb, the film cuts to an extreme long shot of Sanborn and Eldridge behind the Humvee. The pace is slower, dominated by an extreme long shot from close to the bomb, one from Thompson's point of view (the shots blurred by the Perspex of his visor), a medium close-up follow shot showing the back of Thompson's helmet, the tops of his shoulders and the neighbourhood into which he is walking, and a reverse medium close-up of his face through the visor. The music is reintroduced to this sequence, and the Foley of Thompson's footsteps and heavy breathing within the suit dominates the mise-en-bande. Ottosson explains the sound design in this sequence:

When James is walking down the street this one time, I kept his breathing in the whole time and I took out all the other sounds around him, that was just a creative decision to take out this whole world but that space that James is in. He is like a solo man. In that scene it is very much all about him and he couldn't give a rat's ass about anyone. I put him in that space and he became like a man walking on the moon almost, it just all went away, just his breathing. With other people I would have them breathe irregular and more scared, but if you go and listen it would cut to him and just be more calm – just breathing, nothing stressful about it. You put you or me in the situation it would be rapid breathing, heart would be beating, but James, it's one of those scenes that I played to Kathryn and she really, really loved it. Most of the time in scenes such as that I put the breathing all around him, so we're inside him almost, rather than just putting it in the centre, in front of us. (Ottosson, 2013)

As Thompson calls his distance from the IED over the radio, "150", the score

increases in tension. Half way into his journey, the sound of a helicopter causes

him to look up, with the first visual representation of air support indicated by a

Black Hawk helicopter through his visor. As he looks away, he glances at the

butcher's shop, with a non-diegetic thud sounding on the score as he does so -

foreshadowing the events to come. Barry Ackroyd explains the importance of the

spatiality of the sequence:

It's definitely not one of those things we're like let's improvise the explosive device thing and see what happens, it's all very carefully scripted and plotted out. I didn't have a problem with that thing of distance, because what they were describing is a reality. So we worked in physical spaces that were real so we didn't have to suggest the distance from, as Guy Pierce is walking away from, or running away from, a bomb that's about to be detonated, he is physically covering those distances. The camera stays in the only place it can be then, in a safe place, i.e. in the only place it can be with the other characters in the film. That's always the case. That's over a distance of 100 metres. That's the same principle as if you're standing in a room with six people, and the room is small, you're still in a small room and the camera can only be over the shoulder. I describe this as being outside the circle. Perhaps what you say about when you teach the conventions of film, you say the eyeline has to be to the camera, therefore you put the camera between the two actors and the eyeline has to be just to this cross, I find that a real tyranny and try to remove that because it complicates things. (Ackroyd, 2012)

This significance of space articulated by director, screenwriter, sound designer and here stated by the cinematography distinguishes the film from *Green Zone*, where space is less important in a narrative where within the first scene the Weapons of Mass Destruction do not manifest themselves and the story shifts to the threat posed from the conspiracy surrounding the build-up to the Iraq War. Critic Amy Taubin notes in her review for Film Comment that *The Hurt Locker* is both, "Breathtakingly kinetic and spatially coherent (a rare combination)," and that the audio is "as dense and alive as the image" (2009).

The third section of the sequence begins with Sanborn being approached by a civilian who asks the soldier "Where are you from?" An over-the-shoulder close-up establishes the spatial proximity of the men, as a crash zoom shifts from a crane wide shot to a medium shot, accentuating Sanborn's discomfort. As Sanborn pushes the man away, an unseen jet passes loudly overhead, and the scene cuts to a medium shot of Eldridge from behind a vehicle, then to a close-up as he raises his rifle, and finally shifts to his point of view, which whip pans back and forth between Sanborn and the civilian. A medium close-up shows Eldridge as he speaks over the two-way radio to his colleague, "Making friends again, Sanborn?"

distance, serving to accentuate the distance between the two men and also signifying the danger posed to Sanborn. Significantly, as the civilian moves away Sanborn shouts back to Eldridge rather than using his radio, signifying that the threat has passed.

Again, this use of on-the-air radio traffic sounds occurs a number of times in the sequence to signify both distance and imminent danger, with more traditional dialogue effectively dissipating this tension. In a later scene, Jeremy Renner's character Staff Sergeant William James abandons his headphones, transgressing the Standard Operating Procedures of the EOD team, and causes consternation amongst Sanborn and Eldridge who are no longer able to communicate with him. The Hurt Locker is consistent in this privileging of the importance of the ability of the team to communicate. This dialogue operates in four distinct spaces. When the men are in the range of spoken communication, this typically indicates relative safety, while on-the-air dialogue is moderately safe if the protagonists are within visual range of one another. The third, more dangerous, space is on-the-air sound where a character cannot be seen visually through being obscured by smoke, darkness or the environment. The most dangerous space is where the men are unable to communicate entirely, which occurs when James abandons his headphones, in a scene where James leaves the base without authorisation and in a scene where Eldridge becomes separated from Sanborn and James.

The visual cuts back to the medium close-up of Thompson's face in the visor, accompanied by the non-diegetic tone of the score, heavy breathing and footsteps, and a second non-diegetic thud. Thompson calls "25" over the radio. Cutting back to Sanborn, he acknowledges the call and replies over the radio that Thompson is, "Now in the kill zone". The extreme long shot reoccurs – Thompson crossing the frame from left to right, revealing Sanborn and the unit's Humvee in the distance, blurred by heat haze. A cut to Sanborn's point of view shows Thompson entirely in the centre of the frame of an extreme long shot. The mise-en-scene is messy, the frame broken by a burnt-out car to his left in the foreground and the out-of-focus wing mirror of the men's Humvee to the right. He is entirely exposed, on his own and surrounded by machinery (Figure 18). This isolation of characters in the centre of the frame literalises the kill zone of *The Hurt Locker*, and is later indicative of a character's subsequent injury or death.



Figure 18: Extreme long shot (ELS) showing Thompson's isolation within the frame (*The Hurt Locker*, 6:25)

As Thompson kneels to check the detonation charges and pick up the broken robot trailer, the music is reintroduced, an extreme close-up of the bomb suit helmet and the cord, before returning to him centre of the shot. As he reaches the IED itself, long shots show the rubble covering the bomb, the editing switching between close-ups and extreme close-ups of Thompson preparing the detonation cord and laying the charge to the IED in order to enable the controlled explosion and increasingly extreme long shots again showing his isolation in the frame (Figures 19 and 20). His breathing becomes heavier, and non-diegetic highpitched drones pierce the sound mix. Thompson walks away from the device and the music continues to dominate the soundtrack, together with Thompson's heavy footsteps and his calls to Sanborn over the radio of his distance from the device: "Five metres out".



Figure 19: Long shot (LS) of Thompson, Figure 20: Extreme long shot (ELS) of trailer and IED (*The Hurt Locker*, 6:54) Thompson and IED (*The Hurt Locker*, 7:02)

The camera returns to the men at the Humvee, with the editing cutting from the extreme close-ups of Eldridge and Sanborn observing the perimeter, to extreme long shots of them under observation. There is no reverse shot indicating who is doing this observing. The music is absent for over ten seconds, as the conversation between the two men becomes foregrounded before the music is reintroduced as Eldridge observes activity at the butcher's shop (Figures 21 and 22).



Figure 21: Extreme long shot (ELS) of Eldridge and Sanborn (*The Hurt Locker*, 7:25)

Figure 22: Close-up (CU) of Eldridge (*The Hurt Locker*, 7:27)

Music throughout this sequence is used to draw attention to danger and, in this final minute of the sequence, increases in its intensity. Eldridge's point of view first shows the butcher's shop and, as he raises his rifle, a point of view shot through

the scope shows the butcher in a white coat in the doorway of the shop holding what appears to be a mobile telephone. Another pulse of percussion in the score coincides with Thompson calling "Twenty-five" over the radio, reiterating his distance from the IED and, as indicated by Sanborn's dialogue earlier in the sequence, still positioning Thompson within the kill zone.

As Eldridge runs towards the butcher, the pace of the editing increases and the soundtrack becomes more complex, with the Foley rattle of Eldridge's heavy kit, the shouting of Eldridge and Sanborn, and Thompson's voice heard over the radio. The score issues the same low thud at each cut to the butcher's shop, with the music also increasing in intensity and speed as the editing pace increases, and as Sanborn instructs Eldridge to shoot the butcher. As Eldridge raises his rifle to his shoulder to shoot, the low bass tones in the score increase in volume and tempo. The editing cuts from an extreme close-up of the butcher dialling a number to one of Eldridge with his eye to the scope of his rifle as he prepares to take the shot, and one of Thompson's visor as he begins to run from the site of the IED. The bleep of the phone's keypad is introduced into the soundtrack, before a final closeup of the butcher's eyes and then of his finger pressing the 'send' button corresponds with the explosion of the IED. This is shot from two perspectives in a slow-motion sequence that shows dust and gravel being thrown into the air from the percussive blast of the explosion, first from the road and then from the roof of the burnt-out vehicle. The soundtrack combines the thud of the explosion with that of the score, heavy breathing, and the sound of fragments being issued by the explosion which land back onto the metal roof of the car. Paul N.J. Ottosson explains how sound design and music are unified in this sequence:

When a guy comes up to the cell phone, those are from the sound design and a tonal sound that tied this together. It was in the sound design, but then the music is building, the sound design is building, it's almost like their worlds became one very unique sound. (in Koppl, 2010:2)

This moment of synergy between dialogue, Foley, effects, music and narrative is

entirely unified with both the score, which presents clues as to where the audience

should pay attention, and the visual editing, which provides a framework of

ordered spatiality around the complex cinematography.

Non-diegetic wind noise accompanies this slow-motion sequence and the slow

sound of breathing, before a return to the syncretic sound and visual

representation of the explosions in real time from an extreme long shot, and a

return to slow motion as Thompson completes his fall to the ground. Director of

photography Barry Ackroyd explains the use of crash zooms in the sequence:

I can see the whole world here, I can see this very wide shot of Guy Pierce and this explosion going off and when it happens, fuck, what do I do? I want to see if I can see into his eyes, so I'll push the camera and the lens as close as I can. It's not about chasing, it's about positioning yourself and then I use literally the quickest move in any film set is not a crane shot, or a Steadicam or a running hand-held shot, it's simply that you change the focal length from 24mm to 200mm. I had done a documentary about explosions called *Kaboom* many years ago and [...] filmed the bubble of energy that is the killer, it's not the shrapnel of whatever, it's just energy, that's why you're in the kill zone 25 metres away. We couldn't afford to do a CGI bubble and we couldn't generate the force of a real bomb which I'd shown previously in the documentary. That's where I came up with the idea, we did ultra-slow mo. We just made the earth shudder, dirt on a tracking board and just whacked it with a sledgehammer on the other side of a parked vehicle with dust on it and just photograph that, that was a cinematic interpretation of what I knew to be the real deal. (Ackroyd, 2012)

This use of slow motion is accentuated by the music and sound design in the

scene and again prompts attention to what is occurring, both the death of a major

character within the opening sequence of the film and the uncompromising nature

of the threat. Thompson is not killed by the explosion common to action films, but

by the percussive blast wave that follows the explosion, against which the bomb

suit offers no protection within the critical zone. The audience are prompted to pay

attention not just to the cinematography, which showed many potential threats, but to the combination of sound and image – the pulses of the score, and the use of this within a sound design unified to the visual aesthetic and editing, in order to indicate the threat of the butcher. Conversely, spoken theatrical dialogue – that is between the principals and spoken in English – signifies safety and closeness, particularly evident in the closing moments of the sequence. Thompson is differentiated and isolated from his colleagues by the bomb suit, represented through the Foley sound of the suit, his heavy footsteps, laboured breathing and dialogue restricted to being broadcast "over the air" of the two-way radio. The sound design trigger of the explosion from within the butcher's shop is foreshadowed a number of times within the sequence both visually and sonically. There is a unification of the pulse in the score as a sonic leitmotif each time the butcher's shop appears in the frame, indicating the threat posed by the butcher later in the scene.

Intrasoundtrack Analysis 4: No Place for a Picnic (50:43-63:53)

The second sequence – titled No Place for a Picnic on the DVD – occurs in the middle of the second act. In the desert, the EOD team encounter a team of British 'contractors', a euphemism the film uses in place of Special Forces, whose vehicle has become incapacitated by a flat tyre. After attempting to change the tyre, both teams come under fire and proceed to engage with an insurgent sniper team at a distance. The drawn-out nature of this sequence, almost 15 minutes in length and played out in real time, again serves to defy the conventions of sound and visual editing more commonly associated with action cinema. A high-profile actor is dispatched early in the scene, where the demise of a contractor played by Ralph Fiennes echoes the death of Guy Pearce in the opening sequence of the film. The

effect of bullets in the exchange is seen long before they are heard, death coming

to those targeted quickly and without conversation. Kathryn Bigelow explains:

On the page, scenes such as the sniper fight read not only in real time, but offered a highly nuanced examination of that kind of combat. The degree of specificity in the script was both exciting and inspiring and I really wanted to protect that aspect, and make sure we could capture it all. In my story boarding of the scene, I made sure that the beats were there, and that the silence was as equally excruciating as the surprise of each moment of the engagement. We had an incredible sound recordist, Ray Beckett, who usually stayed on location hours after the crew had left and would come back with tracks upon tracks upon tracks, and we also benefitted from having Paul N.J. Ottosson on the crew. He is an extraordinary sound designer, probably best known for his work on the *Spider-Man* series, but who had also happened to have trained as a sniper in the Swedish military years earlier which helped bring another layer of specificity to his contribution to the film. (in Marshall, 2013: 201-202)

The sequence begins with the EOD team stopping when they see an unmarked SUV in the desert, surrounded by armed men, with keffiyeh masks covering their faces. Sanborn approaches the closest man, armed with an AK-47 assault rifle rather than a Coalition rifle, and shouts at him to drop his weapons as he raises his own rifle. There is no dialogue from any of the masked men, who initially appear submissive but do not drop their weapons readily. Ralph Fiennes plays this character, listed only as Contractor Team Leader in the closing credits, who first speaks in English and removes his keffiyeh to reveal his face before engaging Eldridge and then Sanborn in conversation. He introduces his team to James and Eldridge, stating that they have lost the wrench for their vehicle. Dialogue dominates the soundtrack, before the sound of the Humvee engine closes this element of the sequence, which returns to dialogue and Foley sound – of prisoners having their hoods removed and drinking. The Contractor Team Leader indicates two enemy prisoners of war bound and hooded next to their vehicle, and explains that his team has captured Nine of Hearts and Jack of Clubs, showing James and Eldridge the deck of Most Wanted playing cards, issued by the US Department of Defense on the outbreak of war (Huppke, 2003). Again, the use of

Foley, as he pulls the cards, is relatively loud in this scene, in which the background is a soft wind sound, before a cut to show Contractor Feisal making use of the wrench from the EOD team's Humvee penetrates the quietness of this element of the soundtrack.

In the sequence, sound leads the direction of the predominantly hand-held camera. Initially the shots consist of a mixture of extreme close-ups of the troops and wide shots showing the two groups of men and their vehicles. As the two groups engage in conversation, whip pans track between the British and US troops in the direction of those delivering dialogue, following the sound within the scene. Although whip pans are common in what David Bordwell has described as "intensified continuity" (2007), in *The Hurt Locker* the sound design of this sequence is dynamic, in that the dialogue and effects pan across the stereo field syncretic to the camera movement and their volume is uneven throughout – louder as the camera frames the person speaking, quieter as they leave the frame. Ottosson explains the purposes of this as underpinning the importance of the camera's subjective position within the film, and of immersion:

When [Barry Ackroyd] whip panned the camera, I am one of the characters looking at what I'm seeing. It wasn't shot for any other purpose than help you the viewer become part of that scene and I think sound had to honour that and be part of that, otherwise I would counter the effort of putting you into the space of being that person. If I kept my sound static, then I would just become the viewer of the movie again and by moving the sounds around I think it becomes part of the movie versus someone who bought a ticket to watch the movie. (Ottosson, 2013)

This syncresis of the sound design with the camera movement expands both the immersiveness of the scene and its spatiality, where image and sound are unified throughout the sequence. Unusually, visual edits within the sequence are also led by the sound design, the sound design providing narrative and spatial information *before* the camera shows the action on-screen. This is achieved through the use

of a number of sound bridges, elements of the soundtrack which typically link geographic or temporal markers, which appear to prompt the camera to pan to the source of sound. As an example, early in the sequence, the sound of the wrench on a wheel nut is followed by a cut from a close-up of Contractor Team Leader, James and Eldridge to an extreme close-up of a contractor's hand on the wrench (Figures 23 and 24).



Figure 23: Close-up (CU) of Contractor Team Leader, together with James and Eldridge (*The Hurt Locker*, 51:25)



Figure 24: Extreme close-up (ECU) of Contractor (*The Hurt Locker*, 51:28) Shortly afterwards, the sound of running water is followed by a whip pan to show Sanborn in the centre of frame, urinating with his back to the camera. In both of these instances, the action is acousmatic first and visualised later. Chion refers to this technique as being "active off-screen" where the intention is "to engage the spectator's anticipation" (1994: 85). In these examples, the space occupied by the Page 219 characters is normalised by familiar sounds, prior to the enemy engagement. This use of a dynamic sound design which leads the camera in the opening moments serves to instil a sense of the importance of sound within the sequence. As in the opening bomb disposal sequence, the audience's understanding of distance and spatial relationships is critical to building tension within the engagement. Ottosson explains that this movement of dialogue and Foley around the soundtrack is unusual, and details some of the complexity in doing it:

In a movie you would play dialogue, I would say almost all the time, up in the centre cone. It would be very unusual that you would play something on the side. Most of the time it would be static, someone calling for you offscreen somewhere. That means also that we would generally play all the Foley up in the centre because that would be married to those people talking, otherwise it would be would be weird to hear some of the Foley of the feet slightly to the right when we hear the dialogue out of the centre. When you record production dialogue there's always a constant of some noise married to the track. Most of the time when its well done you don't hear it so much in the movie - because it's constantly static in the centre cone but you accept it and put all the backgrounds around. If I have a scene where you have the constant in the middle and the camera moves and I move the dialogue far left, then all that noise that was with the dialogue goes with the dialogue out the left side. So there's now a hole in the centre and you have this noise out of the left side. Technically, it just sounds bad. You have to then kind of double your workload by filling in that centre and the sides the whole time. You have to figure out a way to manipulate the noise in the left and the noise in the middle plus the Foley. (Ottosson, 2013)

Ottosson describes both the technical challenges and the deviation from traditional sound design practice, but throughout the interview acknowledges the significance of doing this and its impact on the narrative of *The Hurt Locker*. The importance of trying to create the first-person experience described by Bigelow as director, and the three-dimensional space articulated by the director of photography Ackroyd are in keeping with the effort expended by Ottosson in developing techniques in his sound design and mixing to assist in maintaining the overall verisimilitude of the film. Sergi notes that the actual cost of this attention to detail in the sound in terms of production budget is minimal; rather, it requires a production culture which allows the sound recordist to acquire the sounds in the first place and to

bring in the supervising sound mixer's creative input and involvement early enough in the production in order to execute a complex sound design and mix (2004).

As the conversation continues, a wide shot shows Feisal walking from the rear of the Humvee, from which he has taken a wrench. Cutting to a close-up of the man's back, a whistling sound is followed by a bullet penetrating his body armour, returning to the wide shot as he falls to the ground. The two teams react not to his fall but to the acousmatic sound of the rifle's report that follows and reverberates loudly, suggesting distance. Again, Ottosson explains the sound design in this moment:

With the sniper scene, I said to Kathryn, "I'll play this for you and I really like it, as when you get shot at, you never hear the bullet because you're going to be dead by the time that sound will get there". I think it's far more scary than hearing the gun, the bullet going in and the guy drops. (Ottosson, 2013)

This notion of an invisible enemy has been articulated in previous war films, but is made unusual in *The Hurt Locker* through denying the audience a reverse shot of the origin of the shot for a full three minutes in this scene. Although scholars have noted the use of similar techniques in other films, most notably in the opening sequences of *Saving Private Ryan*, Ottosson articulates how this is made unsettling for an audience, who are denied the usual sonic and visual conventions of the genre. Sound designer Randy Thom notes that "Starving the eye will inevitably bring the ear, and therefore the imagination, more into play" (1999), but by starving both ear and eye, *The Hurt Locker* transgresses the conventions associated with both the war film genre and most Hollywood realist cinema.

Cutting to a close-up, the Contractor Team Leader calls "Contact left" to his colleagues before a wide shot shows a loud explosion that throws debris into the

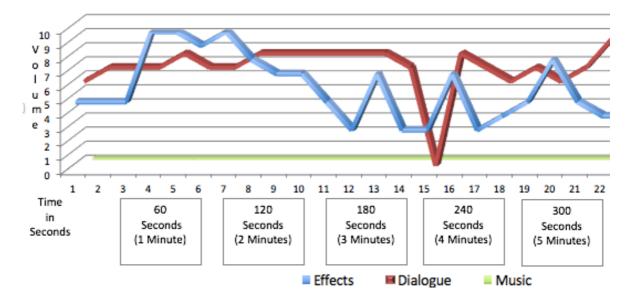
air close to the men. A second explosion occurs, before the rattle of machine guns indicates the men returning fire. Rapid fire from a number of rifles unites a mix of wide and close shots, as Contractor Team Leader calls one of his men to return to the Humvee in order to fire the roof-mounted 50-calibre machine gun, and another to "grab the Barrett" – a large-calibre sniper rifle. A medium shot of the Contractor Team Leader firing in the direction of the camera is followed by an extreme wide shot of the desert that whip pans from left to right – a subjective point of view shot of one of the group scanning the horizon. One of the British contractors, Chris, fires from the roof-mounted machine gun. The sound of this heavy machine gun is lower in tone, although quieter, in the sound mix than the other rifles, and the repetitive nature of the sound provides a rhythm to the scene broken by the louder explosions and whistles of incoming gunfire. Unusually, throughout the first two and half minutes of this real-time sequence, the enemy troops continue to remain unseen. A character comments that he "can't see a thing," and Eldridge's shouted question of "What are we shooting at?" is responded to by a perplexed Sanborn: "I don't know." Ottosson explains:

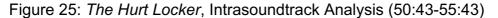
In these scenes, most of the time we had an enemy that wasn't human, it's a bomb somewhere or maybe there isn't a bomb. There might be someone hiding who, when you disarm that bomb, is going to shoot you. So we have an enemy that is almost never seen. Where there is uncertainty, that is the worst of all. I'd rather know there is an enemy and know where that enemy is, than be in an area where I knew there could be an enemy, even if there was only 10% chance. Even a 1% chance is in some way worse than if there is an enemy and you know where it is because then you can protect yourself against it. In the Army any sound, or any movement that wasn't expected, was a huge event for you and your adrenaline would be spiked and you would see this hyper-reality. I would think who is the person who has the strongest point of view in that scene and what are they looking out for. Sometimes those were very subtle things because the soundtrack goes very, very guiet. It's dense with a lot of stuff but it doesn't play it loud. So, when anything happens in the movie it is a little bit startling. (Ottosson, 2013)

Although the sniper sequence represents a traditional engagement with an

identifiable enemy – albeit eventually seen at a distance – rather than the inferred

threat of a remotely detonated explosive device, Ottosson explains that this sequence functions in the same manner as the bomb sequences in drawing out the drama and playing up the realist aesthetic through bringing the audience into the subjective experience of the soldiers under fire. This evidences a further unification of the visual and sonic grammar throughout the film, regardless of the drama unfolding in the sequence, and again distinguishes the film from the uneven deployment of sound and character subjectivity found within *Green Zone*. In a further distinction from the genre conventions of *Green Zone*, despite the beginning of enemy action – marked in the intrasoundtrack analysis by the crack of the enemy rifle, the break in dialogue and the US and British troops initial return of gunfire - there is no accompanying music cue in the soundtrack (Figure 25). This is unusual in an action sequence and a creative decision that maintains the subjective positioning of the soundtrack, both reaffirming the continuing danger to the men and verisimilitude of the situation.





As the men regroup in a ravine, the Contractor Team Leader unpacks and sets up the sniper rifle. The camera cuts back to Contractor Chris in the Humvee turret, with the mise-en-bande dominated by the sound of his heavy machine gun. A second angle from between his legs shows him in medium shot from the base of the turret situated in the centre of the frame – a position of danger in *The Hurt Locker* (Figure 26).



Figure 26: Contractor Chris exposed in the Humvee turret (*The Hurt Locker*, 53:39)

The point of audition shifts to the position of the camera as shell cases fall to the floor of the turret, in slow motion, the sharp high-pitched sounds contrast against the heavy thud of the weapon firing. A short close-up of the magazine ejecting the shell cases is followed by a medium close-up of the Contractor Team Leader preparing the sniper rifle, which dominates the frame, as the operator is squeezed into the left-hand side of the frame. As he lifts the weapon's scope cover and places his eye to the sight of the sniper rifle, he calmly comments, "Chris is shooting wild". This line of dialogue is foregrounded in the mise-en-bande, suggesting that Chris has not identified the source of the enemy fire, which is confirmed in the subsequent reverse shot where the characters scan the landscape for the origins of the incoming gunfire.

Contractor Chris is advised over the radio to conserve his ammunition. The film cuts again to the rear of the turret operator, who acknowledges the message – stopping for a moment to speak, "Roger, that" into his radio. Situated in the centre

of the frame. Chris is in the same position taken by Guy Pearce's Staff Sergeant Matt Thompson before he was killed by the explosion in the film's opening sequence. As noted previously, in *The Hurt Locker* this position within the film frame is one of vulnerability, and on-the-air communication accentuates his exposure to risk. A high-pitched whistle indicates an incoming gunshot as Chris is hit by the sniper and falls to the base of the turret. "He shot Chris," states one of the characters calmly to the Contractor Team Leader. In this moment, all shooting and dialogue stops and wind noise dominates the soundtrack, the camera cutting between extreme close-ups of the sniper team and extreme wide shots of the apparently empty desert, replete with heat haze. This use of filmic silence is interesting, in that it would conventionally be followed by a music cue; however, the death of Chris is instead followed by an extreme close-up of the Contractor Team Leader looking through the scope, followed by a zoomed whip pan of the landscape mirroring his point of view. Within this shot, a two-storey concrete building moves from right to the left of the frame, before a pan brings the building back into the centre of the frame, where a human figure can be seen in the top right-hand corner.

The men remain under threat, and both cinematography and sound design – still unified – focus on their professionalism and continuing jeopardy. Played out in real time, this is presented awkwardly for the audience, who are not released from the scene through the conventions of action cinema. In *Green Zone*, similarly presented sequences are immediately followed by a militaristic music cue from John Powell's score indicating a successful denouement, but in *The Hurt Locker* this fails to arrive, heightening the tension and verisimilitude. In this third section of the sequence, the editing pace of the film slows and becomes much guieter than the chaotic soundtrack when the men first came under fire. A medium shot of the British sniper team from the front re-establishes their authority, cutting between the point of view zoom of the building through the scope, which wobbles in the heat haze, an extreme close-up of the spotter, a shot of the Contractor Team Leader behind the rifle and a medium shot where the rifle dominates the frame. A crash zoom to the Contractor Team Leader's cheek on the rifle butt cuts to the extreme long shot of the building occupied by the enemy sniper team before a loud bang indicates he has pulled the trigger. The sound of the ejected shell case is followed by a high-pitched whistle – marking the trajectory of the bullet itself – before a crash zoomed medium shot shows the position of the enemy fire team. The building is shown again in extreme long shot, with dust thrown up by its bottom right-hand corner indicating the impact of the bullet, although its report is not heard as a sound event, the significance of distance being articulated through the unification of the real-life physics of sound. The camera returns to the Contractor Team Leader in medium close-up as he reloads the rifle, adjusts his sighting and prepares for another shot. The film's visual editor Chris Innis explains:

As for the sniper sequence, we really had to put that together and pull it apart numerous times to get the right pace. Kathryn Bigelow's main goal with that sequence was to show that the Barrett – a 50mm gun – could fire quite a long distance - I think the range is almost two miles – and for the audience to "feel" that distance (2009).

At this stage, almost four minutes into the sequence, a reverse shot shows the two-man enemy sniper team within the building – consisting of the sniper himself and his spotter. The enemy sniper team are initially shown in medium shot silhouetted in the window, before cutting to a point of view shot as the enemy sniper looks over the barrel of his rifle with the focus pulled to show what he is aiming at – the British contractors together with James and his team under a viaduct in the desert. An extreme close-up shows the enemy spotter sighting the US and British troops, and a POV through his scope of the Contractor Team Leader and his spotter. Other than the Foley sound of their footsteps and handling of the rifle and scope, the men do not speak and there is no sound other than the exhalation of breath. They are voiceless, and therefore mirror the quiet professionalism of the EOD team. In an action sequence which would typically be dominated by sound effects or expository conversation giving detail to the audience, dialogue remains sparse and highlights the significance of sound for both teams in their respective environments.

The building is shown again in extreme long shot from the Contractor Team Leader's position, showing the flash of the muzzle from the sniper team followed by a sharp crack as the sound follows the light of the rifle shot. The return to a medium shot places the Contractor Team Leader in the centre of the frame – the kill zone of *The Hurt Locker* – shortly followed by the now familiar whistle of the incoming enemy bullet. As with Contractor Chris, the sniper's bullet strikes the Contractor Team Leader's body and knocks him out of the frame. He falls into the ravine in a wide shot and again it is the Foley sound of his fall – rather than the crack of gunfire – that causes both his spotter and Eldridge to turn and see him on the ground. It is the soundtrack, rather than image, that motivates character agency throughout the scene.

As the British contractors call for air support and Eldridge shouts a warning to the EOD team to be careful, Sanborn climbs to the abandoned Barrett rifle and James picks up the spotter's scope. The sound of the on-the-air radio chatter between the

operator and his base is initially foregrounded in the soundtrack as Sanborn uses the scope to examine the building occupied by the enemy sniper team. The shot construction matches that of the earlier sequence, switching between medium close-ups and extreme long shots of the building, and the dialogue between the two men again dominates the soundtrack. As James describes movement on the roof, Sanborn lines up his first shot and fires. The rifle is much louder than the dialogue. Although the shot hits the building, there is again no corresponding sound of its impact, retaining the integrity of the scene and continuing to privilege the distance between the two fire teams. Image and sound are operating in unity.

James calls a correction and the rifle loudly clicks in the soundtrack as Sanborn attempts a second shot, before announcing that he is out of ammunition. Foley sound dominates as Eldridge moves from the ravine to find ammunition for the rifle, searching the dead body of the Contractor Team Leader. Sanborn clicks the ammunition clip into place, though is unable to cock the rifle, blood within the magazine causing it to jam. James passes the clip back to Eldridge and the Foley of the two men's heavy breathing and the sound of Eldridge spitting on the shells to clean them is accompanied by louder wind noise in the soundtrack. James moves down the ravine, encouraging Eldridge to calm down and breathe. As Eldridge cleans the shells, the Foley of bodily movements and breathing dominates the soundtrack, highlighting the vulnerability of the men's body, and introducing physicality and closeness to a scene dominated by the battle of snipers across a considerable distance where a single shot has proven to be fatal. Again, and in stark contrast to the chaos that dominated the original exchange of gunfire, no enemy shots are seen or heard in these sequences, as the enemy sniper team have nothing to shoot at.

Sanborn reloads the rifle and fires at the building, with a return to the long shot showing him hitting a member of the enemy sniper team. There is no reverse shot, and no sound of the impact. James guides Sanborn to a second target, "twenty metres to the right of the building" with a point of view whip pan articulating the space visually as wind noise mirrors this sonically. Sanborn takes a long breath before firing, the loud report of the weapon again contrasting with the whispered dialogue and the sound of his breathing. Ottosson describes this scene as having been constructed in a similar way to a traditional score, and indicates his privileging of bodily sounds, again drawing the audience into each man's personal experience and their jeopardy. He explains:

That's the only thing for this scene that we built which you hear, so I had to construct it similar to the way you would score a film. It had an arc that gave the impression of how it affected the characters differently. SSG James is in control, he knows what to do and yet SPC Eldridge is terrified, so I played a lot with the perspective of the sound, who the characters were, like we did with SPC Owen Eldridge. I had 5:1 sounds that I panned a little center [sic] in the room, not just the center speaker, but directly center in the room and you hear this oppressive feeling. Once you're in that he's really scared, but when you're with SGT Sanborn and SSG James it almost feels like open winds, you could hear them breathing. James is breathing calmer, then we cut to the enemy's perspective of looking at him, his breathing, there's more trembling in his voice, so I try to hit all the cuts to tell the story sonically with all of these characters, the spirit they were in, whether they were scared as well as their reactions. I tried to get the more ominous winds over where the bad guys walk into the room. It was like scoring with a full symphony orchestra, but with Foley, sound effects, backgrounds, and human breathing. (in Koppl, 2010)

Again, Ottosson articulates a unity of the scene which operates to the conventions

established in the opening sequence of the film but is unusual in terms of the

subtleties in the sonic framing of each character's emotions in response to the

enemy action. Rather than articulating the action of this sequence, Ottosson

focuses instead on each character's subjective position and the manner with which

the sounds they are producing attempts to realise or embody their emotional state.

Sanborn misses the enemy sniper, although an extreme long shot shows the enemy combatant rising to his feet and firing to his right.

James calls a correction and Sanborn makes another shot, which is shown to hit the man, again in long shot. As James confirms the kill, an extreme long shot of the building itself shows the enemy sniper team re-entering the window. An extreme close-up of the enemy sniper's eye, together with a fly crawling over it, accompanied by the sound of his own breathing, is followed by a medium close-up of him firing the rifle. The film cuts to the long shot of the men in the window from James' perspective as he witnesses the muzzle flash and the enemy sniper reloading the rifle. The report of the rifle is heard loudly and from the enemy's perspective, building the tension in the scene. The film cuts to James and Sanborn, though their rifle report is much louder and lower in tone. Following an extreme long shot which shows the bullet striking below the window of the building, a medium shot shows the sniper falling back from the window. James announces, "He's still there," and the sound of the flies buzzing around the men is foregrounded together with wind noise. In the sequence, the environment is represented itself as an ongoing enemy, in addition to the sniper team.

James informs Sanborn that the sniper has moved to a second window, prompting Sanborn to fire again. As the shell is ejected, a slow-motion close-up shows the shell falling to the ground, its sound reverberating in a sonic slow motion. Syncretic music is reintroduced to the soundtrack, its timbre matching the sound of the shell casings striking stones in the earth. As James confirms the kill, the film cuts to a small dust devil moving its way along tracks in the desert – wind noise and the sound of a birdcall are combined into the music cue, 'Goodnight Bastard' (Beltrami

Page 230

and Sanders, 2010). Ottosson acknowledges the significance of the use of the score at this moment:

The music comes in just before the last enemy gets killed. He'd been laying there in silence for quite a bit of time now and that's when we hear a full on melody. It's the first time that we actually have the Main Theme being expressed musically in the movie and that's after the kill, before that you can hear tiny little hints of melodies, so it's at the very end of the scene when the music resolves everything. (in Koppl, 2010)

The use of music and slow-motion cinematography in this moment mirrors the

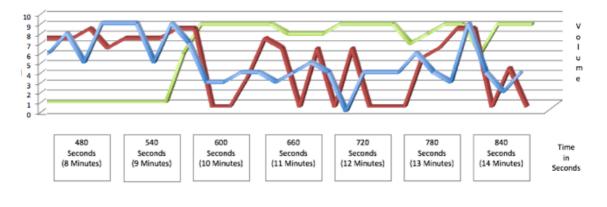
bomb blast which killed Thompson in the film's opening sequence, and the end of

the scene again demonstrates a unity of soundtrack, cinematography and

narrative that is consistent throughout the film. The intrasoundtrack analysis shows

how music provides release, filling the spaces created in the soundtrack by the

end of the gunfight and the men's quiet contemplation of events.



■ Effects ■ Dialogue ■ Music Figure 27: The Hurt Locker, Intrasoundtrack Analysis (58:43-63:53)

Philippa Lovatt acknowledges that war films celebrated for their use of sound, in which she includes *The Hurt Locker*, "often present the phenomenological experience of war from the perspective of soldiers" but rarely present this experience from alternate perspectives (2016: 167). Though her observation is centered on the experiences of those civilians and refugees impacted by conflict, the enemy snipers in *The Hurt Locker* are similarly denied both a voice but also in Page 231

terms of their Foley, where the characters are almost disembodied through their absence in the soundtrack. Lovatt argues that this lack of vocalisations or embodied sound serves to emphasise the vulnerability of characters and their lack of agency (2016: 168). Instead, their eventual deaths are noted from the perspective of the US team both visually – through the point of view of their rifle scopes - and sonically, from Sanborn and James' point of audition. This sequence in *The Hurt Locker* highlights the dominance of the US fire team over the enemy fighters but also offers commentary on the wider conflict presented by the film. The sonic disembodiment of the enemy sniper team serves as a cypher for the lack of an identifiable enemy elsewhere in the film, typified by bomb makers who are rarely seen and difficult to distinguish from the civilian population.

A long shot shows Sanborn and James with the viaduct behind them for the first time and the editing pace slows. Extreme close-ups of the two men looking through their respective scopes is accompanied by the music and the sound of the two men breathing, before James begins to cough and spits dirt from his mouth. The music borrows from the scoring conventions of the western film genre; with a slow tempo and instrumentation which includes a repetitive guitar motif underscored by orchestral elements. Here, the music is intrinsic to the drama in the scene, and makes use of score to accentuate a sense of safety. Kassabian describes these moments as "assimilating identifications" – pathways which connect genre through film music via the history of a film genre (2001:2). As Kathryn Kalinak notes, film music has various relationships, to the film itself, to the narrative world and to other tracks of the film such as visual images and dialogues (1992: 11) – here the connection is to Bigelow's original conception of the man in the bomb suit as a cowboy, faced with multiple threats in a challenging

environment. Bigelow had initially commissioned composers Marco Beltrami and

Buck Sanders because she had been using a temp track – a piece of pre-existing music used in the edit to provide atmosphere before being replaced – from their earlier score for the remake of *3:10 to Yuma*. As Beltrami explains:

The reason she specifically picked Western tunes for it was the main guy in the bomb suit. She likened him to a cowboy in that he sort of went against all the rules and conventions, was doing his own thing and really was a stranger in a strange land. He was in his element in this very foreign environment. The loneliness of the Western theme is the strong but soulful nature of it is something she had responded to. That was something that, when we worked on the actual music for the cue, for the theme, that's where the inspiration came from. (Beltrami, 2013)

Alex Vernon notes that the film's references to the western extend beyond the characterisation of James as cowboy, but identifies a number of notes within Mark Boal's shooting script in addition to visual homage to the genre, noting shots of dust devils, close ups of eyes, long shots of empty vistas and "the maverick protagonist's striding toward a final confrontation down a dusty, deserted town street at high noon" (2017: 378). James calls for Eldridge to pass him some juice, and the music changes again as Eldridge searches for, finds and passes a drink to James and Sanborn. As Eldridge takes a drink himself, the tone of the music changes to a detuned drone as he observes goats on the viaduct behind him. The sound of goats precedes the music's fade to silence. Filmic silence dominates the scene, before Sanborn announces, "It's real quiet, I don't like it". In *The Hurt Locker*, silence often precedes action and, by drawing attention to it, Eldridge's dialogue signifies an ongoing threat. As he finishes the line, a medium close-up shows the goats on the viaduct railway track, as an enemy combatant takes aim (Figure 24).



Figure 28: An enemy combatant takes aim from the viaduct (*The Hurt Locker*, 64:11)

The music begins again, but in a more sinister high-pitched tone, as the combatant moves forward. Eldridge raises his rifle to look through the scope and calls the movement to James. He asks whether he should fire. Following James' response, the music stops as Eldridge fires a volley. The sound of each shot reverberates loudly in the ravine, accompanied by the sound of shell cases as they fall to the floor. An extreme close-up of the killed combatant is accompanied by the return of the lower tone of the 'Goodnight Bastard' cue and the sound of the goats around the combatant's now dead body. A relieved Eldridge is followed by an extreme long shot of the setting sun. "I think we're done," announces James. In the sequence, music appears to originate from the sounds of the environment, as Ottosson explains:

When Marco and Buck came on it was a little bit later in the process. We talked a bit about the sound, and Kathryn had spoken to them about keeping it very much organic and trying to tie things into the real. We never wanted to hear the introduction of music, it needed to come out of something, so I would give a lot of sound design elements to Buck and Marco and I know that they did this natural and record a lot of sounds themselves and kind of make an instrument out of them. So we had this kind of soft entrance of music throughout the movie and a lot of times we would start out with sound design – probably 100% of the time it would start out of sound design or some sound effects – that would evolve into being Page 234

the music for a scene. Sometimes it was more obvious than others. Music never led what we're supposed to feel in the movie, in a lot of movies it does that – almost telling you what to feel before you're ready to feel it, that was something we never did and was very respectful of the story and the script and these people. (Ottosson, 2013)

Unlike composer John Powell's assertion in Chapter Two of his music serving the conventions of the genre through forming "the grease that keeps everything moving" in Green Zone (2016), in The Hurt Locker, music is deployed more dynamically. In this sequence, music is introduced as action is coming to a close rather than breaking the verisimilitude of the scene, and shifts in response to the conditions and emotional state of the characters. Throughout these sequences, sound predominantly leads the camera and the edit, particularly where the cinematography makes use of point of view shots, often in extreme or medium close-up, with the effect that the audience are placed in a subjective position both visually and sonically. Although this mirrors the Gulf War Aesthetic in terms of the convention of the POV through a sniper scope and the use of whip pans to direct the attention of the audience. The Hurt Locker is unusual in that it also matches this subjective position sonically in terms of the point of audition. As Ottosson explains, this deviates from the conventions of the genre but also of typical practice in the sound mix and requires the development of new techniques to service the narrative effectively. The camera is mobile and distracted by noise, most commonly dialogue, but also sounds that do not correspond to the existing mise-en-scene visible within the frame – whether this is the helicopter in the opening sequence or Sanborn urinating in the sniper sequence. Where the camera is not operating from a point of view, such as in the use of wide establishing shots of Thompson approaching the bomb or of Contractor Chris from the base of the Humvee turret before he is wounded, there is a connotation of danger, observation or exposure. This position is repeated throughout the film,

using a language of centrally framing characters in danger as though within the target of a rifle scope, a signalling device that is initially established in the opening sequence with the death of Thompson and reoccurs in later sequences. In the majority of shots in the film where characters are not in immediate danger, they are positioned to the side of the shot or partly out of frame.

This visual framing is matched by the sound recording, which roams the

geography of the location, rarely placing dialogue in the centre of the stereo field,

instead moving dialogue across the field as the camera roams these spaces.

Ottosson explains how sound helps to unify a complex visual narrative, the 360-

degree panoramic space that Bigelow has articulated and the unusual approach to

blocking described by the actors:

[Visual editors] Bob Murawski and Chris Innis did a fantastic job of editing the movie. Just like Kathryn said, they didn't stop shooting and I think the thing that she did that is different, I don't think she used start marks for the actors and I don't think that she used camera positions for the camera either. The actors, they never knew where the camera was, so at some point you can't act to the camera because you don't know where it is. They started doing their scenes as though cameras weren't there, and I think that Kathryn tried to capture. I know in the editing process for continuity and stuff, shots weren't take one and take two. They might be the same vocal words, but they'd be doing completely different actions. I think with the [visual] editing they did a fantastic job and sometimes then with the sound we would take care of the rest so the continuity of what they were doing. I think also that a lot of these things I would drive over cuts together with sound which would keep telling me I'm in the same space because that sound is consistently going and then I would then do the reverse, to cut stuff off or cut somewhere else, placing time cuts in it to define that this was supposed to be a different time, to clarify that. (Ottosson, 2013)

This use of a complex sonic and visual language in The Hurt Locker offers the

audience a sense of omniscience but one that is often usurped in terms of the

communication of narrative information through the design of the soundtrack and

the manner with which it is entirely unified with the image. As an example, the

butcher in the opening sequence is one of many characters framed with suspicion

by the cinematography, but he remains ambiguous in terms of the danger he poses. It is only the accompanying *sound* – the non-diegetic booms that accompany Thompson's point of view when he looks towards the butcher's shop – that distinguishes the butcher from the other witnesses of the EOD team's activity, and that serves to foreshadow the events to come and rewards the audience's attentiveness to the soundtrack. This technique serves a similar function in the opening sequence of *The Hurt Locker* to that of the audio zoom that opens *The Conversation* (Coppola, 1974), where the communication of important narrative information through audio is highlighted by the film's unification of visual and sonic language, and where both present a series of the many visual MacGuffins in these films' respective sequences. In *The Hurt Locker*, these include the arrival of the goats or the conversational Iraqi civilian in the opening sequence, and the sniper sequence, both of which are accompanied by a build-up, and eventual release, of dramatic tension.

The importance of space in the opening sequence, and in the film as a whole, is iterated initially by dialogue between Thompson and Sanborn where, as the latter points out, his colleague has entered the kill zone. However, this is articulated in both the cinematography – particularly the use of close-ups juxtaposed against extreme long shots from each man's position – and the film's sound design. On-the-air sound as the men communicate by radio is used throughout the sequence to isolate Thompson both within the bomb suit and within the kill zone. Where characters communicate by radio in the film, there is always an inference of danger; where they are able to speak face to face, the dialogue is dominated by its conversational and everyday nature. This includes the sexual metaphors

exchanged between Sanborn and Thompson, the conversation related to cutting grass between Sanborn and Eldridge, and the easy conversation between the British contractors and James' team prior to both coming under fire. The everyday nature of their speech is accentuated by cinematography that shifts from the multiple cameras and perspectives when the men are in danger to the more conventional use of documentary-style close-ups and medium close-ups which imply the men's closeness and safety.

Further, where enemy fire is commonly matched in the war film genre with a reverse shot of the enemy firing, effectively breaking the subjective position of the audience, The Hurt Locker denies the audience this omniscience, entirely in the case of the opening sequence, and within the opening minutes of the sniper exchange. In the first third of the sniper sequence, the enemy are entirely unseen, with rapid editing and a mixture of hand-held shots revealing the confusion of the men under fire, and few corresponding establishing or wide shots allowing the audience to understand the geography of the engagement. The sound of the British and American gunfire is erratic and inconsistent, with a range of tones. The enemy fire acts in sharp contrast; controlled, regular and accurate. The gunner mounting the turret, Contractor Chris, is shown exposed and from an unusual position before being killed in the centre of the medium shot – the kill zone of The Hurt Locker. After the shooting of Contractor Chris and as the Contractor Team Leader sets up the Barrett sniper rifle, the editing pace and range of shots used slows in the second half of the sequence and the soundtrack quietens. After this point, the enemy are seen primarily through Sanborn's telescopic scope on the sniper rifle, and through the spotter scope held by James. James calls the action, directing Sanborn to arcs of fire. In the second half of the sequence, the point of

audition switches between the two sniper teams. Effectively, this places the audience in the position of the enemy soldiers, previously distant in this sequence.

A later scene which indicates the significance of sound in the storytelling takes place as the men attend the scene of a tanker explosion. The mise-en-bande is dominated by a droning music cue in the same key as the sound of the burning debris around the tanker, entitled 'Oil Tanker Aftermath' (Beltrami and Sanders, 2010). The soundtrack also contains the non-subtitled dialogue of the victims of the blast and the attendant police forces and the low rumble of a passing helicopter. Here, the soundtrack unites a range of disparate shots and very dark images. As James walks further from the explosion, towards the camera and pointing a torch, these sounds fade to the background. He picks fruit from a tree, explaining to Sanborn that the survival of the fruit indicates the edge of the explosion's blast radius and reiterating for the audience the kill zone central to the narrative of *The Hurt Locker*.

A siren sounds as the men are joined by Eldridge and they speculate as to the nature of the bombing. Music is initially used more conventionally in this sequence, building tension through the sound of stringed instruments. James orders the men to turn off their torches but the music begins to fade at the sound of the firing of an airborne flare, which lights the men before they disappear entirely into darkness for almost ten seconds. Continuity here is instead provided by diegetic sound in this section of sequence: the Foley sound of the men's packs and boots, their breathing and, at the end of the sequence, the spot effect of the distant barking of a dog. Ottosson describes how he made use of his sound design to flesh out the

tanker scene:

That part of the movie was basically like a depiction of hell. We have the Americans there and the Iraqi police and all these people who've been killed. Just a lot of havoc and chaos and not knowing what's going on. So we talked about the importance of communicating that [...] there's so much sound there that isn't on the screen, and that was to sell what the scene was about. It's the scene that shows how it affects so many people. They're all walking around confused; it's the biggest bomb they've seen. (in Jackson, 2010)

As the men re-enter the light, a hand-held camera tracks James, as he first walks towards the lens and then is followed by the camera in a continuous shot before dialogue returns as the men discover a depot. In this sequence and elsewhere, sound effects blend with music, but instead of providing a conventional sound bridge between scenes, they are used to indicate the closure of scenes. What is unusual is not that these techniques are all driven by a desire to stay true to the notion of reportage of Boal's script, even though these are centred initially on the significance of the kill zone around the IEDs within the narrative, but that they remain consistent throughout the film, even in sequences where bombs are not the threat. Significantly, these approaches to spatiality and character subjectivity are *unified* across the blocking of scenes from the perspective of the cinematography and production sound, and strengthened by the visual and sound editing.

Conclusions

John Caldwell identifies a delineation of film production roles as labour that includes either "below-the-line technical crafts (operators, editors, grips, etc.)" or the "above the line creative sector (cinematographers, directors, writers, producers)" (2008: 38). However, in the case of *The Hurt Locker*, the delineation between some of these roles and departments is largely an arbitrary consideration placed upon a film production by its accountants and marketing teams, rather than Page 240 through a consideration of the creative input of each role holder. As outlined, Caldwell also sees these as often "manufactured identities" (2008: 150), whose articulation equates to a form of apartheid between those involved in production and post-production processes. In this instance, technical skills and creative input are more commonly blurred than neatly distinct and delineated.

In *The Hurt Locker*, the intentional privileging of sound over image by Bigelow and Boal, director and screenwriter respectively and also perhaps more importantly both co-producers of the film, serves to disturb traditional understandings of the hierarchy of film production. Bigelow's position as having final cut on the film, and her relationship with Boal as producer allows for an unusual level of control by director, writer and producers over the way in which space and place are articulated in the film and the significance of retaining the integrity of Boal's screenplay. The development of the *Gulf War Aesthetic* within the film was enabled by the film's unusual production practice. This was, in part, enabled by the majority of the shoot taking place in Jordan and outside the interference of a traditionally funded studio production – particularly in terms of an unconventional delineation between sound designer and music composers – destabilising traditional industry roles.

As scholars including Laura Rascaroli note, Bigelow's films regularly challenge notions of reality with the use of the camera. While restricted by the conventions of the two-camera shoot on *Green Zone*, the director of photography Barry Ackroyd was free to extend ideas of transparent cinema in service of the narrative of *The Hurt Locker* through the deployment of between four to ten units, as he explains:

I describe my cinematography as kinetic. My 3D feeling comes from my sculptural background, but the difference between a painting and a

sculpture is that it has weight and substance and fills space. I see my direct lineage through what I do to my art school background and my interest in solid objects to make life, human life particularly, feel as real as possible. 3D is a way of saying realism [...] Someone said to me that Kathryn's films are very diverse, they can be very organised and planned, big budget films and small budget films, but she certainly knew herself what she wanted which was a film which took these lives, this story of life and danger and wanted to portray it. I'm sure in her head she had a vision of how that could be but at the same time I know she wouldn't know how to achieve it, more than within the conventions she knew herself. (Ackroyd, 2012)

In *The Hurt Locker*, however, this transgression is also evident in the sound design which avoids the conventions of sound typical of the war film genre where syncretic sound commonly works to accentuate the image. Instead it is the composition of sound and image, often out of step with what is being represented on the screen, and the deliberate lack of sync matching that creates "perceptual events" (Prince, 1996). Paul Sharits has described this as sound "cinematics", which he argues comments "both on an image's function in time as well as its confined position within the frame" (in Ragona, 2008: 173-174). This is exemplified in *The Hurt Locker* by the soundtrack drawing attention to the butcher bomber in the opening sequence. Sharits' intention in his own practice was to consider the spatiality of the world, what Ragona refers to as a "compositional dimensionality" (2008: 180), and this encapsulates how Ottosson describes the purpose of the sound design and music in that sequence. This notion of spatiality is reiterated in an interview with Ottosson, who acknowledges the influence on his sound design of his own experience in the Swedish Army:

I was never in Iraq, but I remember how you think and feel in an environment like that. Every corner you turn, there could be something that could take you out. Or something behind you. So every time we cut, even if we're going somewhere in very close proximity to the previous shot, I thought it was important to establish an audible difference – to play with that perspective, make the spaces tighter. It takes a lot of work (in Lodge, 2013).

In *The Hurt Locker*, the distinction between the viewer/listener and what is viewed/heard is entirely consolidated through the use of sonic whip pans that

match the physical world represented on the screen. These multiple points of both view and audition have a reliance on sound to communicate important narrative information. While academic monographs and the film industry's own awards commonly credit achievement to a single individual, there remains far less consideration given to the manner with which each member of the highly specialised, technical staff in each department – the sound recordist within the sound department, or camera operator – contributes to the creative enterprise of filmmaking. With few exceptions, their contribution continues to be perceived as one of competence, rather than of creativity, yet in *The Hurt Locker*, the delineation of roles and unity of sound and image create a film that operates as part of a contingent whole. This blurring of boundaries within the crew, and the development of new techniques – in both sound design and the approach to the visual environment by the director of photography – all serve to retain the integrity of the subjective and spatial positioning of the characters in the narrative.

The combination of the visual panorama in the cinematography matched with a similar approach to sound design blurs the boundaries of off-screen and on-screen space in *The Hurt Locker*, parallels the transmedia representations of the Iraq War identified in Chapter One, and serves to advance what I have defined as the *Gulf War Aesthetic* through its unification.

Conclusion

A movie works the best when I'm never aware of the individual efforts of anyone in the movie, whether an actor, cinematographer, the sound, the music, whatever that might be, when all that feels like it came from just one place – unified effort versus individual effort. (Ottosson, 2013)

This thesis has examined the working practices of a number of filmmakers in a range of roles working on two case study films representing the Iraq War: The Hurt Locker and Green Zone. Responding to a call to arms by scholars of film sound including Rick Altman and Gianluca Sergi, my intervention into the field of film sound scholarship has been to draw together two differing methodologies in order to both examine the production culture which surrounds each of these case studies and to test the *impact* of this culture through the close, intrasoundtrack analysis of each film text. This mixed methodology has allowed me to determine how the practitioners involved articulated their intent to others working within each production and the manner with which they were able to retain the integrity of their narratives from the earliest stages of script development, through principal photography, post-production and release. The second stage of this analysis has been to consider the effectiveness in realising this creative vision and to articulate the significance of the unification of the soundtrack with the image in the construction of meaning in films representing the Iraq War, specifically in relation to their adoption and development of what I have defined as the Gulf War Aesthetic.

The examination of the production culture of each film was conducted through the study of industrial semi-embedded deep texts, and a series of interviews with the filmmakers and a number of their crew serving in both above-the-line and below-the-line roles. This analysis has revealed each case study to demonstrate a shift in Page 244

the roles of responsibilities of their crew, but also very different cultures of production in each film accelerated by shifts in technology. I have investigated how creative decisions taken during their development, production and post-production have impacted upon the films themselves.

I have determined the manner with which the introduction by US and UK forces of sophisticated media/military relations following the Vietnam War, specifically the emergence of the embedded reporter, has impacted on transmedia forms of moving images in news media, documentary and narrative feature film. I have argued that these changes in the manner in which the Gulf War was reported and the congruence of emergent broadcasting and weapons technology predicated the emergence of a distinctive Gulf War Aesthetic, which formed following the invasion of Irag by the US-led Coalition in 1991. I defined this through shifts in the visual and sonic representation of the Gulf War, but also detailed how this impacted upon 'real' narrative accounts of conflict – which I have argued have shifted from a primarily objective position to one that privileges the subjective position of its protagonists. I argued that the development of this Gulf War Aesthetic is in large part a result of a convergence of transmedia techniques drawn from different forms of storytelling related to the conflict – particularly what became the ubiquity of military-sanctioned footage from missile-mounted and gunnery cameras, in addition to first-hand accounts from embedded news reportage, combatantoriginated footage in documentary and the emergence of first-person video games.

I have demonstrated the response of the war film genre and determined the impact of the *Gulf War Aesthetic* in the development of the genre conventions and

narrative techniques of feature films set during the Gulf War, and its effect on historical representations of earlier conflicts such as in *Saving Private Ryan*. Though reflecting very different conflicts, both are focused on the subjective experience of their protagonists through complex sound and image design. This aesthetic has since been impactful in other genres, initially in action thrillers such as the *Bourne* series (2002-), but latterly in horror through the *Saw* franchise (2004-) and also in science fiction such as *Star Wars: The Force Awakens* (Abrams, 2015) and *Rogue One: A Star Wars Story* (Edwards, 2016). Each of these films makes use of aspects of the *Gulf War Aesthetic* in their deployment of dynamic cinematography unified with a sophisticated sound design in order to articulate a sense of realism, and of their character's subjectivity and spatiality. The result is a visual and aural experience that seeks to place the viewer as subject within the spatiality of conflict, experiencing the action, as it were, firsthand.

I have argued that this cross-pollination across genres echoes an earlier shift in the recording, design and exhibition of film sound that emerged in a period of aesthetic and technological change that coincided with the films of the New Hollywood of the 1970s. For example, during this earlier period there were distinct developments in the privileging of sound and the development of innovative techniques that were initially featured in science fiction films such as *THX1138* and *Star Wars*, but soon made an impact outside that genre in the gangster film *The Godfather* (Coppola, 1972), teenpics such as *American Graffiti* (Lucas, 1973), suspense thrillers including *The Conversation* (Lucas, 1974) and, in one of the earliest films to feature a specific credit for its sound design, the Vietnam War epic *Apocalypse Now* (Coppola, 1979). The difference between this earlier period and

the more contemporary period that has been the focus of my study is that this technological and aesthetic shift has primarily been led by the war film genre.

I have detailed the manner with which the circumstances of the Iraq War, which began a decade after the Gulf War, presented a dilemma for narrative filmmakers. The invasion and subsequent insurgency presented an enemy some distance from the traditional or conventional combatant who had previously populated the war film genre, even in films recounting the Gulf War, and challenged established generic conventions of storytelling. As Thomas Ruettershoff notes, the asymmetric conflict of modern insurgences does not necessarily represent a bilateral struggle but multiple, competing insurgents or government groups, each of whom are pursuing their own agenda where it is difficult to narrativise success (2015: 36-38). In the Iraq War, the enemy was often hidden in plain sight within urban areas, and the insurgency that followed the invasion by US and UK forces in 2003 was one driven more by ideology than by a single identifiable physical menace.

I have acknowledged that this "war of ideas" (Echevarria, 2008; Krause and Van Evera, 2009) is one that is difficult to translate to the cinema screen, and have detailed how the *Gulf War Aesthetic* developed in cinema, and became more sophisticated as the Iraq War was prosecuted. I argue that this was, in part, driven by filmmakers such as Bigelow and Greengrass' desire to both maintain the integrity of their source material, and continuing desire to present a verisimilitude in the films which mirrored the real world reportage of events in Iraq. A secondary driver for this advancement of the *Gulf War Aesthetic* was an audience who were able to access unprecedented coverage of the conflict through emergent forms of mediated moving image and sound, including feature-length documentary films

constructed from combatant footage, and short-form combatant-originated footage distributed via Internet platforms such as YouTube and through social media.

In filmic terms, while the protagonists of the case study films are clearly identified, their antagonists are difficult for an audience to determine. The enemy is rarely physically manifested, represented instead by proxies – the Improvised Explosive Devices and body bombs defused by the EOD team of *The Hurt Locker* and the never-seen chemical, biological or nuclear Weapons of Mass Destruction sought by Roy Miller and his Mobile Exploitation Team in *Green Zone*. In both case studies, the articulation of the enemy is entirely reliant on connecting the audience with the subjective experience of the protagonists. I have argued that the success of this is largely reliant on the use of sound – drawing from techniques which reflect the sound of news reporting, documentary and combatant footage of the Iraq War – and have detailed the significance of this sound design and related images in suspending the disbelief of audiences through maintaining a unified subjective position.

I have argued that this second cycle of Iraq War films saw an advancement of the *Gulf War Aesthetic* in cinema. The ongoing nature of the conflict, lack of a discrete enemy and privileging of subjective, experiential stories is made evident in an aesthetic that combines visual techniques such as Kathryn Bigelow and Barry Ackroyd's multi-camera, 360-degree visual panorama and similarly sophisticated sound design. In *The Hurt Locker*, this is made evident through innovations in sound mixing by Paul N.J. Ottosson in his development of the audio whip pan, and in the wider articulation of the soundtrack itself, where increasingly blurred

relationships between what is considered music, audio effects and sound design further the conventions of the war film genre.

The utilisation of these techniques by filmmakers, and the effect that has on sound design technologies is particular to each film under scrutiny in this thesis. In The Hurt Locker, Kathryn Bigelow's decision to privilege sound design from the script stage through to principal photography is crucial in the unification of sound and image within a film that makes use of much of the complex visual filmmaking grammar of Green Zone. While both films are set in Irag in the months following the initial invasion, with scripts born of reportage that play out many scenes in real time, screenwriter Mark Boal's script for The Hurt Locker differs from that of Green Zone in that the events portrayed are divorced from specific historical events on the ground. In terms of its soundtrack, The Hurt Locker distinguishes itself from the predominantly post-production sound mix of Green Zone through the acquisition and deployment of an unusually high proportion of on-location production sound from recordist and sound mixer Ray Beckett. In addition, the use of a non-diegetic score is less overt as a cinematic device and often missing entirely in long action sequences, underlining the sense of authenticity within the film. Where *Green* Zone is inconsistent in its unification of point of view with point of audition throughout the film, in *The Hurt Locker*, the sound designer Paul N.J. Ottosson uses innovative techniques in a complex sound mix that directly matches the frenetic whip pans and crash zooms from the multiple camera positions of Barry Ackroyd's cinematography. The result is a soundtrack that is consistent with the subjective nature of the narrative and unified with the film's visual aesthetic.

In *The Hurt Locker*, I have demonstrated that the whole production culture was centred on maintaining the integrity of the construction of space and significance of distance between the explosive devices and those tasked to disarm them within the script, and that sound was identified as significant in the success of this intention early in the development of the film. The deviation from traditional techniques and shift of roles within the sound department is mirrored in the unconventional cinematography and visual editing. I have identified how this relationship between sound and image has been driven by an intention to articulate and distinguish the broader geographical places, such as the city scenes and the desert, from more intimate spaces, including the bomb suit, vehicles and gunnery positions, occupied by *The Hurt Locker*'s characters. I have detailed the significance of this unification of technique in the construction of an experiential, subjective position that the audience share with these characters.

In the production studies interviews, I have shown how an attention to detail in the use of sound was deployed, with a much higher proportion of production sound within *The Hurt Locker* in the almost 100% use of dialogue recorded on location by Ray Beckett, rather than the more commonly deployed techniques of Automated Dialogue Replacement in post-production, in addition to a high proportion of production sound utilised by Ottosson in his design and mix of the final soundtrack. This use of production sound is highly unusual in action cinema, where the re-recording of dialogue in a controlled environment by the actors during post-production is a more common practice. As Ottosson states, this blurring of techniques and unification of sound and image is driven by the desire to retain the audience's subjective identification, which drove the construction of the film's visuals in places:

There are cuts in the movie that have changed because of sound, where sound has achieved something that we couldn't anticipate, or maybe even that sound couldn't take us to that point with sound effects alone and we would find different cuts in the movie to actually get there. A lot of stuff you have to figure out early on when you don't have score drive over the top and glue it all together. (Ottosson, 2013)

This unification of sound and image was primarily about maintaining the integrity of Boal's script, and the immersive sense of 'being there'. As Ottosson explains, "When Barry [Ackroyd] [...] whip panned the camera, I am one of the characters looking at what I'm seeing. It wasn't shot for any other purpose than help the viewer become part of that scene and I think sound had to honour that and be part of that, otherwise it would counter the effort of putting you into the space of being that person" (2013).

Importantly, I have identified the performative nature of interviews for filmmakers, whether for film critics or scholars, and the manner with which the material surrounding each film's marketing contributes to the wider discourse surrounding each film. In both *Green Zone* and *The Hurt Locker*, these materials and the filmmakers themselves have privileged authenticity. However, this claim can be tested in the intrasoundtrack analysis undertaken for each film, where I have identified and evaluated the impact of the blurring of roles within the sound department and the deviation from conventional modes of recording, arranging, designing and mixing sound within the two case studies. I have shown how, in *The Hurt Locker*, Bigelow's initial resistance to the use of a music score developed into a sophisticated deployment of Marco Beltrami and Buck Sanders' music within the sound track, which made use of production sound from the location recordist and sound mixer Ray Beckett. In the film itself, Ottosson introduced each music cue in his final mix through what he describes as a "soft entrance", drawing the music out from sound design textures within his mix (2013). Through the study of two very

different production cultures in the case study films, I have highlighted the difficulties in separating technical and creative roles within the film crew and the notion of hierarchy in film production, and inspected the developing scholarship in this area.

In the 1970s, the convergence of technological innovation with a desire for narratives driven by sociopolitical circumstances prompted a series of genre films that were distinct from those that preceded them. The impact of these technical and narrative innovations by a small number of crew in a relatively small number of films – *THX 1138, The Godfather, American Graffiti, The Conversation, Apocalypse Now* – created an impact beyond the sound or camera departments, and beyond their respective genres. More recently, technological change and digitisation have increased the availability of mobile, high-resolution digital cameras, audio acquisition technologies and the ability to edit and distribute moving image and sound through sites such as YouTube. The effect has been to reduce the liminal space between amateur and professional, more so than at any other point in history, with this proliferation of moving images and their accompanying soundtracks challenging traditional modes of news reporting, documentary and narrative feature films.

This thesis argues that the circumstances surrounding the Iraq War and its prosecution served as a catalyst for filmmakers to innovate in their practice in order to articulate through cinema a conflict some had considered to be unnarratable (Clover, 2009: 9). While *The Hurt Locker* has reported one of the lowest box office grosses for a Best Picture Academy Award winner (Lang, 2015), it is arguably the most successful attempt by filmmakers to articulate the Iraq War

through modes of storytelling that articulate space, place and subjectivity through the unification of sound and image in narrative cinema. The impact of such films extends beyond theatrical success, in developing new techniques in cinema, in undermining long-standing hierarchies of production, and in driving innovation more broadly, across a number of different film genres.

Definitions

BAFTA	British Academy of Film & Television Arts
CENTCOM	US Central Command
CIA	US Central Intelligence Agency
DoD	US Department of Defense
ECU	Extreme Close-Up
EOD	Explosive Ordinance Disposal, or bomb, squad
FAA	US Federal Aviation Authority
IED	Improvised Explosive Device
HMMWV	US High Mobility Multipurpose Wheeled Vehicle, commonly referred to as a Humvee
JIB	US Joint Information Bureau
MCU	Medium Close-Up
MET	Mobile Exploitation Team, with further designates by squad – Alpha, Bravo, Delta
MNF-I	Multi-National Force-Iraq
MOPP	Mission Orientated Protective Posture
NMP	US National Media Pool
PAO	US Military Public Affairs Officer
PGM	Precision-Guided Munitions
PMC	Private military company
POV	Point of view, typically of a camera or character
SAM	Surface-to-air missile
USMC	United States Marine Corps
USS	United States Ship, a commissioned ship owned and operated by the US Navy
WMD	Weapons of Mass Destruction. Can be biological, chemical or nuclear

Glossary of Terms

Acousmatic Sound	Diegetic sound heard without seeing its origin
Looping/Automatic Dialogue Replacement (ADR)	The process of re-recording dialogue during post-production, rather than during principal photography
Dialogue	The sound of human speech
Diegetic sound	Sound "that (apparently) issues from a source within the narrative" (Gorbman, 1987: 21-22)
Foley Effects	Naturalistic sounds, commonly of human movement, matched – or synchronous – to action shown on screen (Handzo, in Weis and Belton, 1985: 405)
Gulf War Aesthetic	An aesthetic that emerged in news media, documentary and fictional representations of the Gulf War that privileges immersiveness, immediacy and verisimilitude. In feature films, narrative is typically focused on the subjective experience of the individual that exploits transmedia culture in a 'live action' aesthetic of hand-held cinematography, and sound design which is centred around the experience of the characters, and echoes developments in military and broadcast technologies.
Intrasoundtrack	The relationship between the soundtrack and visual image (Altman, Jones and Tatroe, in Buhler, Flinn and Neumeyer, 2000: 339-346)
Mise-en-bande	The sonic equivalent of mise-en-scene, of "putting onto the soundtrack" (Altman, Jones and Tatroe, in Buhler, Flinn and Neumeyer, 2000: 339-346)
Point of Audition	The sonic equivalent of point of view, the spatial positioning from which the audience hears sound in the film (Chion, 2009: 485)
Post-Production Render	The use of sound to convey feelings or effects associated with the situation on screen
Soundtrack	The combined elements of sound in film – dialogue, effects, music and silence – rather than individual components (Sergi, 2004: 6)
Score	Music written specifically for the film in which it is used
Sound Mixing	The balance and control of sound elements with the soundtrack

Source Music	Music used in a soundtrack which existed prior to the film being released
Spot Effects	Sound effects linked to action, such as gunfire
Syncresis	Where sound adds value to the image and appears to emanate naturally from the events portrayed on screen, <i>syncretic</i> to visual events or acts (Chion, 1994). Sound unrelated to events on screen can be described as <i>non-syncretic</i> .
Vococentrism	The privileging of the human voice with a soundtrack
Walla	A term for crowd noise, where specific voices are indistinguishable from one another

Bibliography

3:10 To Yuma (2007) Directed by James Mangold [Film]. USA: Lionsgate.

Ackroyd, B. (2012) 'Barry Ackroyd Interview'. Interview with Kingsley Marshall for *Unpublished Transcript*, 1 November 2012.

Adamson, W.G. (1997) *The Effects of Real-Time News Coverage on Military Decision Making*. Available at: http://www.dtic.mil/dtic/tr/fulltext/u2/a394036.pdf (Accessed: 15 October 2016).

Adorno, T.W., Eisler, H. and McCann, G. (1994) *Composing for the Films*. London, UK: Continuum International Publishing Group.

AFiveBThree (2010a) *Iraq raw combat footage Marine ambush Zaidon*. Available at: https://www.youtube.com/watch?v=U-TyEaDCp7w (Accessed: 2 June 2010).

AFiveBThree (2010b) *Iraq raw combat footage Marine Firefight Haditha*. Available at: https://www.youtube.com/watch?v=gFS0rf0vK0c (Accessed: 16 October 2015).

AFiveBThree (2010c) *Iraq raw combat Marines SMAW ambush Ramadi*. Available at: http://www.youtube.com/watch?v=JH85FF9-2SE&feature=related (Accessed: 18 February 2010).

Alien (1979) Directed by Ridley Scott [Film]. USA: 20th Century Fox.

Allen, J. (2010) 'Chamber of Horrors: Saving Private Ryan', *Reverse Shot*, Symposium 22: Take Three: Reverse Shot Sounds Off (June 14, 2010 - July 21, 2010). Available at: http://reverseshot.org/symposiums/entry/1230/saving-privateryan (Accessed: 15 October 2016).

Alleva, R. (2009) 'War as Narcotic. "The Hurt Locker", *Commonweal* (September), pp. 23–26. https://www.commonwealmagazine.org/war-narcotic (Accessed: 12 July 2017).

Altman, R. (1980a) 'Introduction', Yale French Studies, (60), pp. 3–15.

Altman, R. (1980b) 'Moving Lips: Cinema as Ventriloquism', Yale French Studies, (60), pp. 67–79.

Altman, R. (ed.) (1992) Sound Theory, Sound Practice. New York, US: Routledge.

Altman, R., Jones, M. and Tatroe, S. (2000) 'Inventing the Cinema Soundtrack: Hollywood's Multiplane Soundsystem', in Buhler, J., Flinn, C., and Neumeyer, D. (eds.) *Music and Cinema (Music/Culture)*. Hanover, US: University Press of New England, pp. 339–359.

Alyankovich (1991) *Gulf war 13 - Desert Storm, 1991, CNN.* Available at: https://www.youtube.com/watch?v=C5ISNQ6D-kE (Accessed: 12 July 2016).

American Graffiti (1973) Directed by George Lucas [Film]. USA: Universal Pictures.

A Midnight Clear (1992) Directed by Keith Gordon [Film]. USA: MGM Home Entertainment.

Anderegg, M. (ed.) (1991) *Inventing Vietnam: The War in Film and Television*. Philadelphia, US: Temple University Press.

ApacheClips (2012) '*EXTREMLY GRAPHC - Iraq Operation Phantom Fury*', *Apache Clips*. Available at: http://www.apacheclips.com/boards/media/108-EXTREMLY-GRAPHC-Iraq-Operation-Phantom-Fury (Accessed: 5 November 2016).

Apocalypse Now (1979) Directed by Francis Ford Coppola [Film]. USA: United Artists.

Arnett, P., Holliman, J. and Shaw, B. (1991a) 'Gulf War (098 of 374) - Desert Storm, 1991' CNN, Broadcast (New Zealand): 17th January, 1991. Video courtesy of & copyright owned by Mediaworks Ltd. (TV3), Tape 98 of 374. Available at: http://www.youtube.com/watch?v=vIXvCfnM2-E (Accessed: 2 June 2012).

Arnett, P., Holliman, J. and Shaw, B. (1991b) *As it Happened -- The Gulf War on CNN (pt 2)'. CNN, Broadcast 17th January, 1991.* Available at: http://www.youtube.com/watch?v=vIXvCfnM2-E (Accessed: 26 June 2012).

Arnett, P., Holliman, J. and Shaw, B. (2013) *Operation Desert Storm - CNN's Live news coverage of the war in the gulf - Operation Desert Storm starting at 6:39 p.m. EST on January 16th, 1991.* Available at: https://www.youtube.com/watch?v=vn8mfg_oEz4 (Accessed: 16 October 2015).

Ascot Elite (2009) *The Hurt Locker Production Notes*. Available at: http://www.ascot-elite.ch/libraries.files/TheHurtLocker_ProductionNotes_eng.pdf (Accessed: 28 January 2015).

Atkinson, S. (2011) 'Surrounded by Sound: The Aesthetics of Multichannel and Hypersonic Soundscapes and Aural Architectures', *The Soundtrack*, 4(1), pp. 5–21.

Axmaker, S. (2010) 'True Fiction: Kathryn Bigelow on '*The Hurt Locker*', *Parallax view*. Available at: http://parallax-view.org/2010/02/04/true-fiction-%E2%80%93-kathryn-bigelow-on-the-hurt-locker (Accessed: 1 December 2015).

BAFTA Guru (2014) *Paul Greengrass: David Lean Lecture 2014*. Available at: https://www.youtube.com/watch?v=z9GQjFNFOk8 (Accessed: 25 October 2015).

Balázs, B. and Bone, E. (1970) *Theory of the Film: Character and Growth of a New Art*. New York, US: Dover Publications.

Balides, C. (2000) 'Jurassic Post-fordism: Tall Tales of Economics in the Theme Park', *Screen*, 41(2), pp. 139–160.

BARB (2016) *Weekly top 30 programmes*. Available at: http://www.barb.co.uk/viewing-data/weekly-top-30 (Accessed: 26 April 2016).

Barcsay, K. (2008) 'Kathryn Bigelow's Gen(d)re', Cinephile, 4(1), pp. 63–72.

Barker, M. (2011) A 'Toxic Genre': The Iraq War Films. London, UK: Pluto Press.

Barnes, J. (2002) 'The worst reported war since the Crimean', *The Guardian*. Available at: http://www.guardian.co.uk/media/2002/feb/25/broadcasting.falklands (Accessed: 30 July 2012).

Barnes, R. (2005a) Collaboration and Integration: A Method of Advancing Film Sound Based on The Coen Brothers' Use of Sound and Their Mode of Production. Volume 1. PhD thesis. Bournemouth University. Available at: http://eprints.bournemouth.ac.uk/9165/2/Vol.1_Barnes%27_thesis.pdf (Accessed: 24 January 2016).

Barnes, R. (2005b) Collaboration and Integration: A Method of Advancing Film Sound Based on the Coen Brothers' Use of Sound and Their Mode of Production. Volume 2. PhD thesis. Bournemouth University. Available at: http://eprints.bournemouth.ac.uk/9166/1/Vol._2_Barnes%27_thesis.pdf (Accessed: 24 January 2016).

Barnes, R. (2007a) 'Barton Fink: Atmospheric Sounds of the Creative Mind', *Offscreen*, 11(8-9). Available at: http://offscreen.com/view/barnes_bartonfink (Accessed: 24 January 2016).

Barnes, R. (2007b) 'The Sound of Coen comedy: Music, Dialogue and Sound Effects in Raising Arizona', *The Soundtrack*, 1(1), pp. 15–28.

Barnfield, G. (2011) 'Introduction: The War on Terror in News and Popular Culture', *Journal of War & Culture Studies*, 4(2), pp. 155–159.

Basinger, J. (1986) *The World War II Combat Film: Anatomy of a genre*. 1st edn. New York, US: Columbia University Press.

Battlefield 2 (2005) Directed by Electronic Arts [Video Game]. USA: Electronic Arts.

Battle for Haditha (2007) Directed by Nick Broomfield [Film]. UK: HanWay Films.

Baudrillard, J. (1995) *The Gulf War Did Not Take Place*. Bloomington, US: Indiana University Press.

Bazin, A. and Gray, H. (1960) 'The Ontology of the Photographic Image', *Film Quarterly*, 13(4), pp. 4–9.

Beck, A. (ed.) (2002) *Cultural Work: Understanding the Cultural Industries*. Abingdon, UK: Routledge.

Beck, R. (2008) 'Inanimate Fact and Iraq War Filmmaking', *Film Quarterly*, 62(1), pp. 8–9.

Belton, J. (2009) 'Technology and the Aesthetics of Film Sound', in Braudy, L. and Cohen, M. (eds.) *Film Theory and Criticism: Introductory Readings*. Oxford, UK: Oxford University Press, pp. 63–72.

Beltrami, M. (2013) 'Marco Beltrami Interview'. Interview with Kingsley Marshall for *Unpublished Transcript*, 3 May 2013.

Beltrami, M. and Sanders, B. (2010) *The Hurt Locker Soundtrack* [CD]. USA: Lake Shore Records.

Benayoun, M. (2008) 'L'art après la technologie', *Technology Review, French edition*, 7(June–July 2008), pp. 205–227.

Bennett, B. (2010) 'Framing Terror: Cinema, Docudrama and the "War on Terror", *Studies in Documentary Film*, 4(3), pp. 209–225.

Bennett, B. and Diken, B. (2011) 'The Hurt Locker: Cinematic Addiction, "critique," and the War on Terror', *Cultural Politics: An International Journal*, 7(2), pp. 165–188.

Bennett, L.W. (1994) *Taken by Storm: The Media, Public Opinion, and U.S. Foreign Policy in the Gulf War.* Edited by Bennett and David L Paletz. 3rd edn. Chicago, US: University of Chicago Press.

Benson-Allott, C. (2009) 'Standard Operating Procedure: Mediating Torture', *Film Quarterly*, 62(4), pp. 39–44.

Berberi, C. and Castro, M.O. (eds.) (2015) *30 Years After: Issues and Representations of the Falklands War*. 2nd edn. London, UK: Routledge.

Bigelow, K. and Boal, M. (2009) 'Kathryn Bigelow and Mark Boal Interview'. Interview with Kingsley Marshall for *Unpublished Transcript*, 20 September 2009.

Birkenstein, J. (2014) *Reframing 9/11: Film, Popular Culture and the 'War on Terror'*. New York, US: Continuum International Publishing Group.

Bjerre, T.Æ. (2011) 'Authenticity and War Junkies: Making the Iraq War Real in Films and TV Series', *Journal of War & Culture Studies*, 4(2), pp. 223–234.

Black, J. (2001) *The Reality Effect: Film Culture and the Graphic Imperative*. New York, US: Taylor & Francis.

Blade Runner (1982) Directed by Ridley Scott [Film]. USA: Warner Bros. Pictures.

Blair, H., Culkin, N. and Randle, K. (2003) 'From London to Los Angeles: A Comparison of Local Labour Market Processes in the US and UK Film Industries', *The International Journal of Human Resource Management*, 14(4), pp. 619–633.

Blair, H., Grey, S. and Randle, K. (2001) 'Working in Film – Employment in a Project Based Industry', *Personnel Review*, 30(2), pp. 170–185.

Blood Simple (1984) Directed by Joel Coen, Ethan Coen [Film]. USA: Circle Films/USA Films.

Bloody Sunday (2002) Directed by Paul Greengrass [Film]. Ireland: Paramount Classics.

Blue Steel (1990) Directed by Kathryn Bigelow [Film]. USA: Metro-Goldwyn-Mayer/Artisan Entertainment.

Boal, M. (2003) 'Jailbait', *Playboy* (August), pp. 60–75.

Boal, M. (2004) 'Death and Dishonor', *Playboy* (May), pp. 108–112, 134–141.

Boal, M. (2005) 'The Man in the Bomb Suit', *Playboy* (September), pp. 70–74, 148–153.

Boal, M. (2007) 'The Real Cost of War', *Playboy* (March), pp. 52–54, 62, 128–134.

Boal, M. (2009) *The Hurt Locker. The Shooting Script.* New York, US: Newmarket Press.

Bordwell, D & Thompson, K. (2004) *Film Art: An Introduction*. International Edition. London, UK: McGraw-Hill, Inc.

Bordwell, D. (2005) *Figures Traced in Light: On Cinematic Staging*. 1st edn. Berkeley, US: University of California Press.

Bordwell, D. (2006) *The Way Hollywood Tells it: Story and Style in Modern Movies*. 1st edn. Berkeley, US: University of California Press.

Bordwell, D. (2007a) 'Insert your favorite Bourne pun here', *David Bordwell's Website on Cinema*. Available at: http://www.davidbordwell.net/blog/2007/08/30/insert-your-favorite-bourne-pun-here (Accessed: 30 October 2015).

Bordwell, D. (2007b) 'Intensified continuity revisited', *David Bordwell's Website on Cinema*. Available at: http://www.davidbordwell.net/blog/2007/05/27/intensified-continuity-revisited (Accessed: 26 October 2015).

Bordwell, D. (2007c) 'Unsteadicam chronicles', *David Bordwell's Website on Cinema*. Available at: http://www.davidbordwell.net/blog/2007/08/17/unsteadicam-chronicles (Accessed: 30 October 2015).

The Bourne Supremacy (2004) Directed by Paul Greengrass [Film]. Germany/USA: Universal Studios.

The Bourne Ultimatum (2007) Directed by Paul Greengrass [Film]. Germany/USA: Universal Pictures.

Box Office Mojo (2015) 'Green Zone (2010)', *Box Office Mojo*. Available at: http://www.boxofficemojo.com/movies/?id=greenzone.htm (Accessed: 25 February 2016).

Bravo Two Zero (1999) Directed by Tom Clegg [TV Movie]. UK: BBC.

Brogan, K.K. (2006) *Defense Policy: An approach for Exploring the Military – Media Tension*. PhD thesis. Northern Virginia Graduate Center.

Bronfen, E. (2012) *Specters of War: Hollywood's Engagement with Military Conflict*. New Brunswick, US: Rutgers University Press.

Brooks, X. (2014) 'Paul Greengrass set to direct Jonah Hill and Leonardo DiCaprio in Olympic terrorism drama', *The Guardian*. Available at: http://www.theguardian.com/film/2014/sep/11/jonah-hill-and-leonardo-dicaprio-to-star-in-olympic-terrorism-drama (Accessed: 31 October 2015).

Brown, B. (2012) *Cinematography: Theory and Practice: Image Making for Cinematographers and Directors*. 2nd edn. Burlington, US: Elsevier Science.

Bryman, A. (1984) 'The Debate about Quantitative and Qualitative Research: A Question of Method or Epistemology?', *The British Journal of Sociology*, 35(1), pp. 75–92.

Buhler, J., Flinn, C. and Neumeyer, D. (eds.) (2000) *Music and Cinema*. 1st edn. Middletown, US: Wesleyan University Press.

Buhler, J., Neumeyer, D. and Deemer, R. (2009) *Hearing the Movies: Music and Sound in Film History*. Oxford, UK: Oxford University Press.

Burgoyne, R. (2010) 'The Hurt Locker: Abstraction and Embodiment in the War Film', *University of Minnesota Press Blog*, 17 March. Available at: http://www.uminnpressblog.com/2010/03/hurt-locker-abstraction-and-embodiment.html (Accessed: 1 December 2015).

Burgoyne, R. (2012) 'Embodiment in the War Film: *Paradise Now* and *The Hurt Locker*', *Journal of War & Culture Studies*, 5(1), pp. 7–19.

Burgoyne, R. (2014) 'The Violated Body and Affect in *Zero Dark Thirty*', in LaRocca, D. (ed.) *The Philosophy of War Films*. Lexington, US: University Press of Kentucky, pp. 247–260.

Burlingame, J. (2014) 'Billion dollar composer: John Powell ranges from action to animation', *Variety*. Available at: http://variety.com/2014/music/news/composer-john-powells-passion-ranges-from-animation-to-live-action-1201161511/ (Accessed: 7 September 2016).

Burlingame, J. and Crowdus, G. (1995) 'Music at the Service of Cinema: An Interview with Ennio Morricone', *Cineaste*, XXI(1-2), pp. 76–80.

Burlingame, J. and Maltin, L. (2000) *Sound and Vision: 60 years of Motion Picture Soundtracks*. Collingdale, US: Diane Pub Co.

Bussdriver (2007) *The making of 'Inside Iraq,': Interview with Mike Shiley*. Available at: https://www.youtube.com/watch?v=E3RQI3tsTeU (Accessed: 27 July 2016).

Butler, J. (2009) *Frames of War: When is Life Grievable?* New York, US: Verso Books.

Calderone, M. (2014) 'How Vice News got unprecedented access to the Islamic State', *Huffington Post.* Available at: http://www.huffingtonpost.com/2014/08/07/vice-islamic-state_n_5656202.html (Accessed: 1 January 2016).

Caldwell, J. (2004) 'Industrial Geography Lessons: Socio-Professional Rituals and the Borderlands of Production Culture', in Nick, C. and Anna, M. (eds.) *MediaSpace: Place, Scale and Culture in a Media Age*. New York, US: Routledge, pp. 163–189.

Caldwell, J.T. (2006) 'Critical Industrial Practice: Branding, Repurposing, and the Migratory Patterns of Industrial Texts', *Television & New Media*, 7(2), pp. 99–134.

Caldwell, J.T. (2008) *Production Culture: Industrial Reflexivity and Critical Practice in Film and Television*. Durham, US: Duke University Press.

Caldwell, J.T. (2009) 'Screen Studies and Industrial "Theorizing", *Screen*, 50(1), pp. 167–179.

Call of Duty 4: Modern Warfare (2007) Directed by Activision [Video Game]. USA: Activision.

Cameron, E.W. (ed.) (1980) *Sound and the Cinema: The Coming of Sound to American Film*. New York, US: G&B Arts International.

Caranicas, P. (2009) "Hurt Locker:" Capturing the Sound of War', *Variety* (December). http://variety.com/2009/film/news/hurt-locker-capturing-the-sound-of-war-1118012018 (Accessed: 17 October 2017).

Carnes, M.C. (1997) 'Past Imperfect: History According to the Movies', *Cineaste*, 22(4), pp. 33–37.

Castonguay, J. (2004) 'Conglomeration, New Media, and the Cultural Production of the "War on Terror", *Cinema Journal*, 43(4), pp. 102–108.

Chandrasekaran, R. (2006) *Imperial Life in the Emerald City. Inside Iraq's Green Zone*. New York, US: Knopf Doubleday Publishing Group.

Chapman, J.L. and Allison, K. (2009) *Issues in Contemporary Documentary*. Cambridge, UK: Polity Press.

Chare, N. (2011) 'Policing Technology: Listening to Cop Culture in The Wire', *Journal for Cultural Research*, 15(1), pp. 15–33.

Charles, M. and Townsend, K. (2011) 'Full Metal Jarhead: Shifting the Horizon of Expectation', *The Journal of Popular Culture*, 44(5), pp. 915–933.

Charmaz, K. (2001) 'Qualitative Interviewing and Grounded Theory Analysis', in Gubrium, J.F. and Holstein, J.A. (eds.) *Handbook of Interview Research: Context and Method*. Thousand Oaks, US: Sage Publications Inc, pp. 675–694.

Chion, M. (1994) *Audio-Vision: Sound on Screen*. Edited by Claudia Gorbman. 1st edn. New York, US: Columbia University Press.

Chion, M. (1999) The Voice in Cinema. New York, US: Columbia University Press.

Chion, M., Gorbman, C. and Delogu, J.C. (2009) *Film, A Sound Art*. New York, US: Columbia University Press.

Chouliaraki, L. (2006) 'The Aestheticization of Suffering on Television', *Visual Communication*, 5(3), pp. 261–285.

Christopherson, S. (2008) 'Labor: The Effects of Media Concentration on the Film and Television Workforce', in Wasko, J. and McDonald, P. (eds.) *The*

Contemporary Hollywood Film Industry. Oxford, UK: Wiley-Blackwell, pp. 155–165.

Cinemetrics: MOVIE MEASUREMENT AND STUDY TOOL DATABASE (2015) Available at: http://www.cinemetrics.lv (Accessed: 31 October 2015).

Cipriani, A. and Latini, G. (2008) 'Global/Local Issues in Electroacoustic Music for the Cinema of the Real: A Case Study', *Organised Sound*, 13(02), pp. 89–96.

Clover, Joshua. (2009) 'Allegory Bomb', Film Quarterly, 63(2), pp. 8–9.

CNN. (2013) 'Shock and Awe' The Beginning of the 2003 Invasion of Iraq (CNN Live Coverage). Available at:

https://www.youtube.com/watch?v=f7iorfwcmeY&list=PLpHstGly_lufslvrmJcy7ebaKAjf3Nfj (Accessed: 17 October 2015).

Coll, S. (2013) "Disturbing" & 'Misleading", *The New York Review of Books*. Available at: http://www.nybooks.com/articles/archives/2013/feb/07/disturbingmisleading-zero-dark-thirty (Accessed: 30 August 2015).

Columbia Pictures (2012) *Zero Dark Thirty: Production Notes*. Available at: http://gregorymancuso.com/wp-content/uploads/2013/07/Zero-Dark-Thirty-movieproduction-notes-pdf-download.pdf (Accessed: 25 October 2015).

The Contemporary Issues Agency (2005) *A film and lecture by Mike Shiley*. Available at: http://www.ciaspeakers.com/assets/insideiraq.pdf (Accessed: 30 August 2016).

The Conversation (1974) Directed by Francis Ford Coppola [Film]. USA: Paramount Pictures.

Cook, D.A. (2002) 'Technological Innovation and Aesthetic Response', in Cook, D.A. (ed.) *Lost Illusions: American Cinema in the Shadow of Watergate and Vietnam, 1970-1979.* Berkeley, US: University of California Press, pp. 355–370.

Cook, P. (2004) *Screening the Past: Memory and Nostalgia in Cinema*. New York, US: Taylor and Francis.

Cooke, M. (2008) *A History of Film Music*. Cambridge, UK: Cambridge University Press.

Corliss, R. (2010) 'Box Office: Alice Turns Damon a Sickly Green', *Time Magazine*. Available at:

http://content.time.com/time/arts/article/0,8599,1971941,00.html (Accessed: 5 January 2015).

Cottle, S. (2006) *Mediatized Conflicts: Developments in Media and Conflict Studies*. 1st edn. New York, US: Open University Press.

Courage Under Fire (1996) Directed by Edward Zwick [Film]. USA: 20th Century Fox.

Cowie, E. (2009) 'On Documentary Sounds and Images in the Gallery', *Screen*, 50(1), pp. 124–134.

Cowie, E. (2011a) 'Documentary Space, Place, and Landscape', *Media Fields Journal*, 4, pp. 1-21.

Cowie, E. (2011b) *Recording Reality, Desiring the Real.* Minneapolis, US: University of Minnesota Press.

Cramer, F. (2014) 'What is "Post-digital"?', *APRJA*, 3(1). http://www.aprja.net/?p=1318 (Accessed: 17 October 2015).

Creekmur, C. (2014) 'The Sound of the "War on Terror", in Birkenstein, J., Froula, A., and Randell, K. (eds.) *Reframing 9/11: Film, Popular Culture and the 'War on Terror*'. New York, US: Continuum International Publishing Group, pp. 83–96.

Cunningham, D.A. (2010) 'Explosive Structure: Fragmenting the New Modernist War Narrative in The Hurt Locker', *Cineaction*, 81. pp. 2–10.

Dairieh, M. (2014) *The Islamic state (full length)* | *VICE news*. Available at: https://news.vice.com/video/the-islamic-state-full-length (Accessed: 30 October 2015).

Davies, P. (2015) 'The Ben Wilkins Interview', *AMPS: The Journal*, May(72), pp. 4–7.

Davis, L. (2013) *Zero Dark Thirty: The Politics of Art or Why All the Critics Are Wrong*. Available at: http://www.huffingtonpost.com/lennard-davis/zero-dark-thirty-critics_b_2711025.html (Accessed: 30 August 2015).

Dawson, N. (2008) 'Nick Broomfield, Battle for Haditha', *Filmmaker Magazine* (May). (Accessed: 17 October 2015).

Dawson, N. (2013) 'Time's Up', in Keough, P. (ed.) *Kathryn Bigelow: Interviews*. Jackson, US: University Press of Mississippi, pp. 142–149.

The Deer Hunter (1978) Directed by Michael Cimino [Film]. USA: Universal Pictures.

De Franco, C. (2012) *Media Power and the Transformation of War*. London, UK: Palgrave Macmillan.

Delmotte, I. (2014) 'Tuned In and Hands On: Sound Designers Beyond Technical Expertise', *Journal of Sonic Studies*, 6(1), pp. 1–12.

Dembek, Z.F. (ed.) (2008) *Medical Aspects of Biological Warfare*. Washington DC, US: Government Printing Office.

Denby, D. (2012) 'Dead Reckoning', *The New Yorker*. Available at: http://www.newyorker.com/magazine/2012/12/24/dead-reckoning-6 (Accessed: 30 August 2015).

Derian, J.D. (2001) *Virtuous War: Mapping the military-industrial-mediaentertainment-network*. Boulder, US: Diane Publishing Company. Devine, J.M. (1999) *Vietnam at 24 Frames a Second: A Critical and Thematic Analysis of over 400 films about the Vietnam War (Texas Film and Media Studies Series)*. Austin, US: University of Texas Press.

Dickinson, K. (ed.) (2002) *Movie Music, The Film Reader*. New York, US: Taylor & Francis.

Dickinson, K. (2008) *Off Key: When Film and Music Don't Work Together*. New York, US: Oxford University Press Inc.

Divine, R.A. (2000) 'The Persian Gulf War Revisited: Tactical Victory, Strategic Failure', *Diplomatic History*, 24(1), pp. 129–138.

Doane, M.A. (1985) 'Ideology and the Practice of Sound Mixing and Editing', in Weis, E. and Belton, J. (eds.) *Film sound: Theory and Practice*. New York, US: Columbia University Press, pp. 54–62.

Dobbins, J., Jones, S.G., Runkle, B. and Moh, S. (2009) *Occupying Iraq: A History of the Coalition Provisional Authority*. Santa Monica, US: RAND.

Donnelly, K. (ed.) (2001) *Film Music: Critical Approaches*. Edinburgh, UK: Edinburgh University Press.

Donnelly, K. (2005) *The Spectre of Sound: Music in Film and Television*. London, UK: British Film Institute.

Donnelly, M. (2015) 'Foreword', in Berbéri, C. and Castro, M.O. (eds.) *30 Years After: Issues and Representations of the Falklands War*. Farnham, UK: Ashgate Publishing.

Dowd, T.N., Niederman, M., Fry, M. and Steiff, J. (2013) *Storytelling Across Worlds: Transmedia for Creatives and Producers: One Story--Many Media.* Oxford, UK: Taylor & Francis.

Drever, J.L. (ed.) (2002) 'Sound Practice: The 1st United Kingdom and Ireland Soundscape Community Conference on Sound Culture and Environments', Dartington, UK: United Kingdom and Ireland Soundscape Community.

Dune (1984) Directed by David Lynch [Film]. USA: Universal Pictures.

Duvdevani, S. (2014) 'How I Shot the War—Ideology and Accountability in Personal Israeli War Documentaries', *Studies in Documentary Film*, 7(3), pp. 279–294.

Ebert Presents: At the Movies (2010) [TV Series]. US: Ebert Productions.

Eberwein, R. (2009) The Hollywood War Film. Hoboken, US: Wiley-Blackwell.

Echevarria, A.J. (2008) *Wars of Ideas and the War of Ideas*. Carlisle, US: Strategic Studies Institute, U.S. Army War College.

The Economist (2010) *The Economist Style Guide*. 10th edn. London, UK: Economist Books.

Elley, D. (2008) 'Review: *The Hurt Locker'*, *Variety*. Available at: http://variety.com/2008/film/features/the-hurt-locker-2-1200471003/ (Accessed: 29 December 2014).

Ellis, J. (2011) *Documentary: Witness and Self-revelation*. New York, US: Taylor & Francis.

Engelhardt, T. (1994) 'The Gulf War As Total Television', in Jeffords, S. and Rabinovit, L. (eds.) *Seeing Through the Media: The Persian Gulf War*. New Brunswick, US: Rutgers University Press, pp. 81–96.

Eraserhead (1977) Directed by David Lynch [Film]. USA: Libra Films International.

Ervine, J. (2009) 'Representations of War: From the New Wave to the New Millennium', *Journal of War & Culture Studies*, 2(1), pp. 81–91.

d'Escriván, J. (2009) 'Sound Art (?) on/in Film', Organised Sound, 14(01), p. 65.

Eskjaer, M.F., Hjarvard, P.S. and Mortensen, M. (eds.) (2015) *The Dynamics of Mediatized Conflicts*. Wheaton, US: Peter Lang Publishing.

Ettema, J.S. and Whitney, C.D. (1982) *Individuals in Mass Media Organizations: Creativity and Constraint (SAGE Series in Communication Research)*. Thousand Oaks, US: Sage Publications.

Evans, K.L. (2014) 'The Work of Art in the Age of Embedded Journalism', in LaRocca, D. (ed.) *The Philosophy of War Films*. Lexington, US: University Press of Kentucky, pp. 355–381.

F. E. (2013) 'On making '*Captain Phillips*'', *The Economist*. Available at: http://www.economist.com/blogs/prospero/2013/10/qa-paul-greengrass (Accessed: 29 August 2016).

Falk, Q. (2012) 'In the Line of Fire', *Exposure* (June), pp. 16–18.

The Falklands Play (2002) Directed by Michael Samuels [Film]. UK: BBC.

Felperin, L. (2006) 'Film of the month: Jarhead (2005)', *Sight & Sound* (January). Available at: http://old.bfi.org.uk/sightandsound/review/3090 (Accessed 1 January 2016).

Film.Music.Media (2015) *All Access: John Powell*. Available at: https://www.youtube.com/watch?v=-E1bIOvIGuI (Accessed: 7 September 2016).

Fischer, R. (2015) 'Rumor: Kathryn Bigelow Sets Bowe Bergdahl Film as Next Project', *Slash Film*. Available at: http://www.slashfilm.com/bowe-bergdahl-movie (Accessed: 1 December 2015).

Flew, T. (2013) Global Creative Industries. Cambridge, UK: Polity Press.

Flueckiger, B. (2009) 'Sound Effects: Strategies for Sound Effects in Film', in Harper, G., Doughty, R., and Eisentraut, J. (eds.) *Sound and Music in Film and Visual Media: A Critical Overview*. New York, US: Continuum International Publishing Group, pp. 151–179.

Freedman, L. (2000) 'Victims and Victors: Reflections on the Kosovo War', *Review of International Studies*, 26(3), pp. 335–358.

Freedman, L.D. and Barnett, R. (2003) 'Asymmetrical Warfare: Today's Challenge to U.S. Military power', *Foreign Affairs*, 82(3), p. 151.

Freeman, D. and Sider, J. (2003) *Soundscape: The School of Sound Lectures* 1998 - 2001. Edited by Larry Sider. London, UK: Wallflower Press.

Freer, I. (2014) 'Empire meets John Powell', *Empire*. Available at: http://www.empireonline.com/movies/features/john-powell-career (Accessed: 7 September 2016).

Fujishima, K. (2010) 'Is 'Severe Clear' the real 'Hurt Locker'?', The Wall Street Journal. Available at: http://blogs.wsj.com/speakeasy/2010/03/11/is-severe-clear-the-real-hurt-locker (Accessed: 17 October 2017).

Funker530 (2016) *FUNKER530 - veteran community* & *combat footage*. Available at: https://www.youtube.com/user/FUNKER530 (Accessed: 5 November 2016).

Gadinger, F. (2016) 'Narrating War: Human Deformation in The Hurt Locker', in Gadinger, F., Kopf, M., Mert, A. and Smith, C. (eds.) (2016) *Political Storytelling: From Fact to Fiction* (Global Dialogues 12). Duisburg: Käte Hamburger Kolleg/Centre for Global Cooperation Research (KHK/GCR21), pp. 70–81.

Gates, P. (2005) "Fighting the Good Fight:" The Real and the Moral in the Contemporary Hollywood Combat Film', *Quarterly Review of Film and Video*, 22(4), pp. 297–310.

Geiger, J. (2014) 'Documentary, Memory and the Iraq Syndrome', in Rellstab, D.H. and Schlote, C. (eds.) *Representations of War, Migration, and Refugeehood: Interdisciplinary Perspectives*. Hove, UK: Routledge.

Gellman, B. (2003) 'Frustrated, U.S. Arms team to leave Iraq', *Washington Post*. Available at: http://www.washingtonpost.com/wpdyn/content/article/2006/06/12/AR2006061200917.html (Accessed: 5 July 2016).

Generation Kill (2008) Directed by Susanna White, Simon Cellan Jones [TV Series]. USA: HBO.

Ghosts (2006) Directed by Nick Broomfield [Film]. UK: Beyond Films.

Giroux, H.A. (2006) Beyond the Spectacle of Terrorism: Global Uncertainty and the Challenge of the New Media. Boulder, US: Paradigm Publishers.

Glaser, M. (2006) "War Tapes' Film Lets Soldiers Tell Their Stories from Iraq', *Media Shift*. Available at: http://mediashift.org/2006/08/war-tapes-film-lets-soldiers-tell-their-stories-from-iraq227 (Accessed: 31 October 2015).

Goldmark, D. (ed.) (2013) Sounds for the Silents: Photoplay Music from the Days of Early Cinema. Mineola, US: Dover Publications.

Goldmark, D. and Keil, C. (eds.) (2011) *Funny Pictures: Animation and Comedy in Studio-era Hollywood*. Berkeley, US: University of California Press.

Gorbman, C. (1987) *Unheard Melodies*. Bloomington, US: Indiana University Press.

Grajeda, T. (2007) 'The Winning and Losing of Hearts and Minds: Vietnam, Iraq, and the Claims of the War Documentary', *Jump Cut: A Review of Contemporary Media*, 49(Spring).

Gray, T. (2016) 'A Primer on Oscar's Sound Editing and Mixing Categories', *Variety*. Available at: http://variety.com/2016/artisans/production/oscars-sound-editing-mixing-explained-1201682457 (Accessed: 27 August 2016).

Greengrass, P. (2014) *Paul Greengrass: David Lean Lecture sponsored by The David Lean Foundation*.

Greengrass, P. (2016) 'Paul Greengrass Interview'. Interview with Kingsley Marshall, for *Unpublished Transcript*, 18 November 2016.

Greenlaw, D. (2010) "Until Justice is Done": Authenticity and Memory In Paul Greengrass's Bloody Sunday and United 93', *Canadian Journal of Film Studies*, 19(2), pp. 2–25.

Green Zone (2010) Directed by Paul Greengrass [Film]. USA/UK/France: Universal Pictures.

Greiving, T. (2016) 'In the Sounds of Jason Bourne's World, A Story of Creation and Loss', *NPR Music*. Available at: http://www.npr.org/2016/07/30/487777654/in-the-sounds-of-jason-bournes-world-a-story-of-creation-and-loss (Accessed: 7 September 2016).

Grejada, T. (2006) 'Picturing Torture - Gulf Wars Past and Present', in Martin, A. and Petro, P. (eds.) *Rethinking Global Security: Media, Popular Culture, and the War on Terror*. New Brunswick, US: Rutgers University Press.

Griffin, M. (2010) 'Media Images of War', Media, War & Conflict, 3(1), pp. 7–41.

Grondin, D. (ed.) (2012) War Beyond the Battlefield. London, UK: Routledge.

Gubrium, J.F. and Holstein, J.A. (eds.) (2001) *The Handbook of Interview Research: Context and Method*. Thousand Oaks, US: Sage Publications.

Gumbar, S. (2009) *The Hurt Locker: Production Notes (Optimum Releasing)*. Available at: http://press.optimumreleasing.net/dyn/Production%20Notes%20-%20The%20Hurt%20Locker.doc (Accessed: 1 January 2015).

Gunner Palace (2004) Directed by Petra Epperlein, Michael Tucker [Film]. USA: Palm Pictures.

Hallin, D.C. (1986) *The 'Uncensored War': The Media and Vietnam*. 1st edn. New York, US: Oxford University Press Inc.

Hallin, D.C. and Gitlin, T. (1994) 'The Gulf War as Popular Culture and Television Drama', in Bennett, W.L. and Paletz, D.L. (eds.) *Taken by Storm: The Media, Public Opinion, and U.S. Foreign policy in the Gulf War*. Chicago, US: University of Chicago Press, pp. 149–163.

Hammond, M. (2002) 'Some Smothering Dreams: The Combat Film in Contemporary Hollywood', in Neale, S. (ed.) *Genre and Contemporary Hollywood*. London, UK: British Film Institute, pp. 62–76.

Hammond, M. (2004) 'Saving Private Ryan's 'Special Affect', in Tasker, Y. (ed.) *The Action and Adventure Cinema*. London, UK: Routledge, pp. 153–166.

Hammond, P. (2007) *Media, War and Postmodernity*. 1st edn. London, UK: Routledge.

Hammond, P. (2011) 'Simulation and Dissimulation', *Journal of War & Culture Studies*, 3(3), pp. 305–318.

Hammond, P. (2014) 'The Media and Armed Conflict', in Conboy, M. and Steel, J. (eds.) *The Routledge Companion to British Media History*. Abingdon, UK: Routledge, p. 171–180.

Handzo, S. (1985) 'Glossary of Film Sound Technology', in Weis, E. and Belton, J. (eds.) *Film Sound: Theory and Practice*. New York, US: Columbia University Press, pp. 383–426.

Hanson, H. (2007) 'Sound Affects: Post-production Sound, Soundscapes and Sound Design in Hollywood's Studio Era', *Music, Sound, and the Moving Image*, 1(1), pp. 27–49.

Harmon, A. (2003) 'Technology; Improved Tools Turn Journalists into a Quick Strike Force', *The New York Times*. Available at: http://www.nytimes.com/2003/03/24/business/technology-improved-tools-turn-journalists-into-a-quick-strike-force.html?pagewanted=all&src=pm (Accessed: 16 July 2012).

Harper, P.G., Doughty, R. and Eisentraut, J. (eds.) (2014) *Sound and Music in Film and Visual Media: An Overview*. New York, US: Continuum.

Hartley, W.J.H. (2005) *Creative Industries*. Edited by John Hartley. 1st edn. Malden, US: Blackwell Publishing.

Hayward, S. (2000) *Cinema Studies: The Key Concepts*. 2nd edn. London, UK: Routledge.

Hearst, D. (2008) 'Through a lens darkly', *The Guardian*. Available at: https://www.theguardian.com/film/2008/jan/25/1 (Accessed: 8 August 2016).

Helgeland, B. and Greengrass, P. (2010) *Imperial Life in the Emerald City, aka Untitled Green Zone* script. Available at: http://www.joblo.com/scripts/Green%20Zone.pdf (Accessed: 17 October 2015).

Henne, S.M. (1994) *Leveling the Scales: Balancing Operation Security and a Free Press*. Newport, US: Naval War College.

Hershon, R. (1997) 'Film Composers in the Sonic Wars', *Cineaste*, 22(4), pp. 10–13.

Hershon, R. (1998) 'Off the Beaten Track', Cineaste, 23(4), pp. 38–41.

Hershon, R. (2001) 'They're Playing Your Song: The Role of the Music Supervisor', *Cineaste*, 26(3), pp. 24–26, 55.

Hesmondhalgh, D. (2012) *The Cultural Industries*. 3rd edn. London, UK: SAGE Publications.

Hicks, J., Saxton, L. and Westwell, G. (2016) 'Rising Flags, Falling Soldiers: Film, Icons and Political Violence', *Screen*, 57(3), pp. 336–342.

Hijazna (2010) *ITN Archive: Saddam Hussein statue pulled down to the ground*. Available at: https://www.youtube.com/watch?v=hWxszYK6IPU (Accessed: 20 February 2016).

Hillman, N. and Pauletto, S. (2014) 'The Craftsman: The Use of Sound Design to Elicit Emotions', *The Soundtrack*, 7(1), pp. 5–23.

Hoberman, J. (2002) 'Burn, blast, bomb, cut', *Sight & Sound* (February). Available at: http://old.bfi.org.uk/sightandsound/feature/12 (Accessed: 20 February 2016).

Hodgkins, J. (2002) 'In the Wake of Desert Storm: A Consideration of Modern World War II films', *Journal of Popular Film and Television*, 30(2), pp. 74–84.

Hoskins, A. and O'Loughlin, B. (2010) *War and Media*. Cambridge, UK: Polity Press.

Huppke, R.W. (2003) 'Iraqi deck most wanted in U.S.', *Chicago Tribune*. Available at: http://articles.chicagotribune.com/2003-04-19/news/0304190169_1_card-buyers-decks-iraqi-regime (Accessed: 14 January 2016).

The Hurt Locker (2009) Directed by Kathryn Bigelow [Film]. USA: Summit Entertainment.

Hutchison, M. and Robertson, E. (2015) 'Introduction: Art, War, and Truth – Images of Conflict', *Journal of War & Culture Studies*, 8(2), pp. 103–108.

IMDbPro (2015) *IMDbPro*. Available at: https://secure.imdb.com/signup/index.html?u=https%3A%2F%2Fprolabs.imdb.com%2F (Accessed: 15 January 2015).

The Incredibles (2004) Directed by Brad Bird [Film]. USA: Buena Vista Pictures.

Innis, C. (2009) 'Chris Innis Interview'. Interview with Kingsley Marshall for *Unpublished Transcript*, 16 July 2009.

The Inside (2005) Directed by James A. Contner, Karen Gaviola, Fred Gerber, Vern Gillum, Nick Gomez, Marita Grabniak, Kevin Hooks, Dwight Little, Allan Kroeker, Tim Minear [TV Series]. USA: Fox.

Inside Iraq: The Untold Stories (2004) Directed by Mike Shiley [Film]. USA: ShiDog Films.

In the Valley of Elah (2007) Directed by Paul Haggis [Film]. USA: Warner Bros. Pictures.

Iraq in Fragments (2006) Directed by James Longley [Film]. USA: Typecast Releasing/HBO Documentary Films.

Isaza, M. (2010) "The Hurt Locker": Exclusive Interview with Supervising Sound Ediotr/Re-Recording Mixer Paul Ottosson', *Designing Sound*. Available at: http://designingsound.org/2010/03/the-hurt-locker-exclusive-interview-with-supervising-sound-editorre-recording-mixer-paul-ottosson (Accessed: 17 October 2016).

Iyengar, S. and Simon, A. (1994) 'News Coverage of the Gulf Crisis and Public Opinion: A Study of Agenda-Setting, Priming and Framing', in Bennett, W.L. and Paletz, D.L. (eds.) *Taken by Storm: The Media, Public Opinion, and U.S. Foreign Policy in the Gulf War*. Chicago, US: University of Chicago Press.

Jackson, B. (2010) 'Could *The Hurt Locker* Take Sound Oscars? An Interview with Paul Ottosson', in *Mixonline*. Available at: http://www.mixonline.com/news/films-tv/could-hurt-locker-take-sound-oscars/369260 (Accessed: 10 January 2016).

Jaco, C. (1991) 'As it Happened -- The Gulf War on CNN (pt 5)'. CNN, Broadcast 17th January, 1991. Available at: http://www.youtube.com/watch?v=VRoEiqDz_LM (Accessed: 10 July 2012).

Jaramillo, D.L. (2009) *Ugly War, Pretty Package: How CNN and Fox News Made the Invasion of Iraq High Concept.* Bloomington, US: Indiana University Press.

Jarhead (2005) Directed by Sam Mendes [Film]. USA: Universal Pictures.

Jarrett, M. (2000) 'Sound Doctrine: An Interview with Walter Murch', *Film Quarterly*, 53(3), pp. 2–11.

Jason Bourne (2016a) Directed by Paul Greengrass [Film]. USA: Universal Pictures.

Jenkins, H. (2008) *Convergence Culture: Where Old and New Media Collide*. New York, US: New York University Press.

Jennings, P. (1991) 'World News Tonight', ABC, Broadcast 16th January 1991. Available at: http://www.youtube.com/watch?v=XOMRPia8NeM&feature=related (Accessed: 26 June 2011).

Jermyn, D. and Redmond, S. (eds.) (2003) *The Cinema of Kathryn Bigelow: Hollywood Transgressor.* London, UK: Wallflower Press.

Johnston, S. (2009) '*The Hurt Locker*: Interview with Mark Boal', *The Telegraph*. Available at: http://www.telegraph.co.uk/culture/film/starsandstories/6055329/The-Hurt-Locker-interview-with-Mark-Boal.html (Accessed: 29 December 2014).

Jullier, L. (2014) 'Post-Modern Hi-Fi vs. Post-Cool Lo-Fi: An Epistemological War', in van den Oever, A. (ed.) *Techne / Technology. Researching Cinema and Media Technologies, Their Development, Use, and Impact.* Amsterdam, The Netherlands: Amsterdam University Press.

Juvenile Liaison (1976) Directed by Nick Broomfield, Joan Churchill [Film]. UK: Metrodome.

K-19: The Widowmaker (2002) Directed by Kathryn Bigelow [Film]. USA: New Films International/Paramount Pictures.

Kaldor, M. (2012) *New and Old Wars: Organized Violence in a Global Era*. 3rd edn. Washington DC, US: Stanford University Press.

Kalinak, K. (1992) *Settling the Score: Music and the Classical Hollywood Film.* Madison, US: University of Wisconsin Press.

Kalogeras, S. (2014) *Transmedia Storytelling and the New Era of Media Convergence in Higher Education*. London, UK: Palgrave Macmillan.

Kapur, J. (2007) 'Shock and Awe: The Aesthetics of War and its Confrontations with Reality', *Jump Cut: A Review of Contemporary Media*, Spring 2007(49). (Accessed: 17 October 2015).

Kara, S. (2009) 'Reassembling the Nation: Iraq in Fragments and the Acoustics of Occupation', *Studies in Documentary Film*, 3(3), pp. 259–274.

Kassabian, A. (2001) *Hearing Film: Tracking Identifications in Contemporary Hollywood Film Music*. New York, US: Routledge.

Kassabian, A. (2013) *Ubiquitous Listening: Affect, Attention, and Distributed Subjectivity*. Berkeley, US: University of California Press.

Keane, S. (2014) 'Murch and Burtt: Walter Murch and Ben Burtt: The Sound Designer as Composer', in Harper, P.G., Doughty, R., and Eisentraut, J. (eds.) *Sound and Music in Film and Visual Media: An Overview*. New York, US: Continuum, pp. 452–462.

Kellner, D.M. (1992) The Persian Gulf TV War. Boulder, US: Westview Press.

Kenny, T. (1998) 'Walter Murch - the search for order in Sound & Picture', *Film Sound*. Available at: http://filmsound.org/murch/waltermurch.htm (Accessed: 17 October 2015).

Keough, P. (ed.) (2013) *Kathryn Bigelow: Interviews*. Jackson, US: University Press of Mississippi.

Kerner, M.M. (1989) The Art of the Sound Effects Editor. Boston, US: Focal Press.

The Kingdom (2007) Directed by Peter Berg [Film]. USA: Universal Pictures.

King, G. (2000) *Spectacular Narratives: Hollywood in the Age of the Blockbuster*. 1st edn. London, UK: IB Tauris & Co.

King, G. (2006) 'Spectacle and Narrative in the Contemporary Blockbuster', in Williams, L.R. and Hammond, M. (eds.) *Contemporary American Cinema*. London, UK: McGraw Hill Education, pp. 334–355.

Kit, B. (2007) "Locker' lands 3 in Iraq story', *The Hollywood Reporter*. Available at: http://www.hollywoodreporter.com/news/locker-lands-3-iraq-story-143514 (Accessed: 8 January 2016).

Klepper, D.L. (1972) 'Requirements for Theatre Sound and Communication Systems', *Theatre Design & Technology*, 21(2).

Klepper, D.L. (1972) 'Theatre Sound and Communication Systems', *Theatre Design & Technology* (February). http://www.aes.org/publications/anthologies/downloads/jaes_sound-reinforcement.pdf (Accessed: 17 October 2015).

Konrad, R. (2003) 'New technology gives birth to 'backpack journalist', *USA Today*. Available at: http://usatoday30.usatoday.com/tech/world/iraq/2003-03-25-backpack-journalists_x.htm (Accessed: 5 November 2016).

Koppes, C.R., Virilio, P. and Camiller, P. (1991) 'War and Cinema: The Logistics of Perception', *Technology and Culture*, 32(2), p. 447.

Koppl, R. (2010) 'The Hurt Locker: Blurring the Lines between Sound and Score', *Music from the Movies*. Available at: http://www.musicfromthemovies.com/index2.php?option=com_content&view=articl e&id=63 (Accessed: 20 June 2016).

Kracauer, S. (1997) *Theory of Film: The Redemption of Physical Reality*. Princeton, US: Princeton University Press.

Krause, P. and Van Evera, S. (2009) 'Public Diplomacy: Ideas for the War of Ideas', *Middle East Policy*, 16(3), pp. 106–134.

Kroll, J. (2016) 'Kathryn Bigelow rounds out ensemble cast for Detroit riots film', *Variety.* Available at: http://variety.com/2016/film/news/kathryn-bigelow-detroit-riots-movie-cast-complete-1201892677 (Accessed: 29 October 2016).

Kvale, S. (1996) *Interviews: An Introduction to Qualitative Research Interviewing*. Thousand Oaks, US: Sage Publications.

Kyle, C. (2013) 'Christopher Kyle Interview'. Interview with Kingsley Marshall for *Unpublished Transcript*, 25 April 2013.

The Ladykillers (2004) Directed by Joel Coen, Ethan Coen [Film]. USA: Touchstone Pictures.

Lamothe, D. (2016) 'Filmmaker behind Bowe Bergdahl's 'serial' interviews settles lawsuit, avoids army subpoena', *The Washington Post*. Available at: https://www.washingtonpost.com/news/checkpoint/wp/2016/12/13/filmmaker-behind-bowe-bergdahls-serial-interviews-settles-lawsuit-with-army-avoids-subpoena/?utm_term=.945fdc733e51 (Accessed: 13 December 2016).

Lang, B. (2015) 'From 'Birdman' to 'Boyhood,' Oscar nominees remain little seen, low-grossing', Variety. Available at: http://variety.com/2015/film/news/frombirdman-to-boyhood-oscar-nominees-remain-little-seen-low-grossing-1201438919/ (Accessed: 8 January 2016).

Larsen, P. and Irons, J. (2007) Film Music. London, UK: Reaktion Books.

Laurier, J. (2006) 'An interview with James Longley, the director of Iraq in Fragments', *World Socialist Web Site*. Available at:

https://www.wsws.org/en/articles/2006/06/frag-j29.html (Accessed: 15 January 2016).

Lavik, E. (2011) 'The Poetics and Rhetoric of *The Wire's* Intertextuality', *Critical Studies in Television: The International Journal of Television Studies*, 6(1), pp. 52–71.

Letort, D. (2013) 'The War Tapes: Documenting the Iraq War with Digital Cameras', *In Media: Exploring War Memories in American Documentaries*, 4. Available at: http://inmedia.revues.org/729 (Accessed: 30 August 2015).

Lewis, H.T. (2012) 'Organization', in Neale, S. (ed.) *The Classical Hollywood Reader*. New York, US: Taylor & Francis, pp. 147–166.

Lions for Lambs (2007) Directed by Robert Redford [Film]. USA: Metro-Goldwyn-Mayer.

LoBrutto, V. (1994) *Sound-on-film: Interviews with Creators of Film Sound.* Westport, US: Greenwood Publishing Group.

Lodge, G. (2013) 'Tech support: Paul N.J. Ottosson on the subtly explosive soundscapes of "Zero Dark Thirty", *Hitflix.* Available at: http://www.hitfix.com/in– contention/tech–support–paul–n–j–ottosson–on–the–subtly–explosive– soundscapes–of–zero–dark–thirty (Accessed: 17 October 2015).

Lofy (Major), P. (2003) *Managing Sensitive Site Exploitation: Notes from Operation Iraqi Freedom*. Fort Leonard Wood, US: US Army. Available at: http://www.wood.army.mil/chmdsd/images/pdfs/2003%20Sep/Lofy.pdf (Accessed: 30 August 2015).

Longley, J. (2007) *Iraq in Fragments: Production Notes*. Available at: http://www.iraqinfragments.com/background (Accessed: 15 January 2016).

Lost Highway (1997) Directed by David Lynch [Film]. USA: October Films.

Lovatt, P. (2016) 'Breathing Bodies: Sounding Subjectivity in the War Film', in *Music, Sound and the Moving Image*, 10(2), pp. 167–188.

Lucca, V. (2016) 'Desert Rats', Sight & Sound, 26(10), pp. 46–49.

Lynch, M. (2005) Voices of the New Arab Public: Iraq, Al-jazeera, and Middle East Politics Today. New York, US: Columbia University Press.

Maas, P. (2012) 'Don't Trust 'Zero Dark Thirty', *The Atlantic Online*. Available at: http://petermaass.com/articles/dont_trust_zero_dark_thirty (Accessed: 30 August 2015).

Macaulay, S. (2009) 'Severe Clear's Kristian Fraga and Mike Scotti', *Filmmaker Magazine*. Available at: http://filmmakermagazine.com/806-severe-clears-kristian-fraga-and-mike-scotti-by-alicia-van-couvering/#.WAUQX5MrJE4 (Accessed: 30 August 2016).

Mack, A. (1975) 'Why Big Nations Lose Small Wars: The Politics of Asymmetric Conflict', *World Politics*, 27(02), pp. 175–200.

Magid, R. (1998) 'Blood on the Beach', *American Cinematographer*, 79(12), pp. 56–66.

The Making of The Hurt Locker (2009) Behind the Scenes part 1/2 (2009) Directed by Christopher Boal [Film]. USA: Bojidog.

Mancini, M. (1983) 'Sound Thinking', Film Comment, 19(6), pp. 40-43.

Marcks, G. (2006) 'A Credible Witness', Film Quarterly, 60(1), pp. 3–3.

Marks, M. (1979) 'Film Music: The Material, Literature, and Present State of Research', *Notes*, 36(2), p. 282.

Marshall, K. (2009) 'The Hurt Locker: Kathryn Bigelow', *Little White Lies* (August), pp. 76–77.

Marshall, K. (2013) 'The Hurt Locker Interview: Kathryn Bigelow and Mark Boal', in Keough, P. (ed.) *Kathryn Bigelow: Interviews*. Jackson, US: University of Mississippi Press, pp. 199–202.

Marshall, K. (2016) 'Intrasoundtrack Analysis: Green Zone', Unpublished.

Marshall, K. (2016) 'Intrasoundtrack Analysis: Hurt Locker', Unpublished.

Martin, D. (2003) 'Iraq Faces Massive U.S. Missile Barrage', *CBS News*. Available at: http://www.cbsnews.com/news/iraq-faces-massive-us-missile-barrage/ (Accessed: 8 January 2015).

Martin, J. (2013) 'Landscape, Soundscape, Taskscape in the Films *The Hurt Locker* (2008), *Katalin Varga* (2009)', *New Soundtrack*, 3(2), pp. 123–136.

Martinez, K. (2015) 'John Powell – How to Train Your Dragon 2', *Cinesnob*. Available at: http://www.cinesnob.net/john-powell-how-to-train-your-dragon-2 (Accessed: 7 September 2016).

Masters, K. (2012) "Zero Dark Thirty": Kathryn Bigelow and Mark Boal's unorthodox relationship', *The Hollywood Reporter* (December). Available at: http://www.hollywoodreporter.com/news/zero-dark-thirty-kathryn-bigelow-404485 (Accessed: 17 October 2015).

Mayer, V. (2007) 'Studying up and F**cking up: Ethnographic Interviewing in Production Studies', *Cinema Journal*, 47(2), pp. 141–148.

Mayer, V. (2009) *Production Studies: Cultural Studies of Media Industries*. Edited by Vicki Mayer, John T. Caldwell and Miranda J. Banks. New York, US: Taylor & Francis.

Mayer, V. (2011) Below the Line: Producers and Production Studies in the New *Television Economy*. Durham, US: Duke University Press.

McAlister, M. (2006) 'A Cultural History of War Without End', in Slocum, J.D. (ed.) *Hollywood and War: The Film Reader*. Abingdon, UK: Routledge, pp. 325–337.

McCosker, A. (2005) 'Suffering with Honour: The Visual Brutality of Realism in the Combat Film', *Scope*, (2). Available at:

https://www.nottingham.ac.uk/scope/documents/2005/june-2005/mccosker.pdf (Accessed: 17 October 2015).

McCrisken, T.B. and Pepper, A. (2005) *American History and Contemporary Hollywood Film*. New Brunswick, US: Rutgers University Press.

McGeough, K.M. (2016) 'The Roles of Violence in Recent Biblical Cinema: The Passion, Noah, and Exodus: Gods and Kings', *Journal of Religion and Film*, 20(2), Article 35.

McGill, A. (2008) *The Contemporary Hollywood Film Soundtrack: Professional Practices and Sonic Styles Since the 1970s.* PhD thesis. University of Exeter.

McNary, D. (2014a) 'Zero Dark Thirty's' Mark Boal, Megan Ellison team on production banner', *Variety*. Available at: http://variety.com/2014/film/news/zero-dark-thiry-mark-boal-megan-ellison-1201173182 (Accessed: 28 November 2015).

McNary, D. (2014b) 'Paul Greengrass Directing Berlin Wall Drama "The Tunnels" (Exclusive)', *Variety*. Available at: http://variety.com/2014/film/news/paul-greengrass-directing-berlin-wall-drama-the-tunnels-exclusive-1201338730 (Accessed: 28 November 2015).

McSmith, A. (2016) 'Alastair Campbell cleared of 'sexing up' intelligence dossier ahead of Iraq War', *The Independent*. Available at: http://www.independent.co.uk/news/uk/politics/chilcot-report-iraq-war-alastaircampbell-cleared-sexed-up-dossier-tony-blair-spin-doctor-a7122571.html (Accessed: 15 August 2016).

McSorley, K. (2012) 'Helmetcams, Militarized Sensation and 'Somatic War', *Journal of War & Culture Studies*, 5(1), pp. 47–58.

Michalski, M. and Gow, J. (2007) *War, Image and Legitimacy: Viewing Contemporary Conflict.* New York, US: Routledge.

Miles, H. (2006) *AI-Jazeera: The Inside Story of the Arab News Channel that is Challenging the West*. New York, US: Grove Press/Atlantic Monthly Press.

Mirzoeff, N. (2004) *Watching Babylon: The War in Iraq and Global Visual Culture*. New York, US: Routledge.

Morrison, D.E., Tumber, H. and Tumbler, H. (1988) *Journalists at War: The Dynamics of News Reporting During the Falklands Conflict*. London, UK: Sage Publications.

Moulton, J. (2015) 'Interview: 'How To Train Your Dragon' Oscar-Nominated Composer John Powell On The Challenges In The Industry', *Awards Circuit.* Available at: http://www.awardscircuit.com/2015/01/27/interview-train-dragon-oscar-nominated-composer-john-powell-challenges-industry (Accessed: 7 September 2016).

Mowlana, H. and Gerbner, G. (eds.) (1992) *Triumph of the Image: The Media's War in the Persian Gulf, A Global Perspective*. Boulder, US: Westview Press.

Murch, W. (2005) 'Dense Clarity', *The Transom Review*, April 2005, Vol, 5, Issue 1. Available at: http://transom.org/wp-

content/uploads/2005/04/200504.review.murch_.pdf (Accessed: 9 November 2017).

Murphy, J. (2003) 'Text of Bush speech', *CBS News*. Available at: http://www.cbsnews.com/news/text-of-bush-speech-01-05-2003/ (Accessed: 16 October 2015).

Murray, L. (2010) 'Authenticity and Realism in Documentary Sound', *The Soundtrack*, 3(2), pp. 131–137.

Murray, T. (2000) 'Wounds of Repetition in the Age of the Digital: Chris Marker's Cinematic Ghosts', *Cultural Critique*, (46), p. 102.

Nagayama, C. (2009) *Fantasy of Empire: Ri Koran, Subject Positioning and the Cinematic Construction of Space*. PhD thesis. University of Toronto.

National Film & Television School (2014) 'Paul Greengrass gives NFTS masterclass', *National Film & Television School*. Available at: https://nfts.co.uk/news/%E2%80%9Cfilm-making-search-authenticity%E2%80%9D (Accessed: 29 August 2016).

National Research Council and National Academy of Sciences (1999) *Funding a revolution: Government support for computing research*. Available at: http://www.nap.edu/catalog/6323/funding-a-revolution-government-support-for-computing-research (Accessed: 4 May 2016).

Neale, S. (1980) Genre. London, UK: British Film Institute.

Neale, S. (2000a) *Genre and Hollywood*. Edited by Steve Neale. 1st edn. London, UK: Routledge.

Neale, S. (2000b) 'Questions of Genre', in Stam, R. and Miller, T. (eds.) *Film and Theory: An Anthology (Blackwell Anthologies)*. Malden, US: Blackwell Publishing.

Neale, S. (ed.) (2012) *The Classical Hollywood Reader*. New York, US: Taylor & Francis.

Near Dark (1987) Directed by Kathryn Bigelow [Film]. USA: DeLaurentiis Entertainment Group.

Nichols, B. (2010) *Introduction to documentary*. 2nd edn. Bloomington, US: Indiana University Press.

Nilges, M. (2014) 'The Aesthetics of Destruction: Contemporary US Cinema and TV Culture', in Birkenstein, J., Froula, A., and Randell, K. (eds.) *Reframing 9/11: Film, Popular Culture and the 'War on Terror'*. New York, US: Continuum International Publishing Group, pp. 23–34.

Nohrstedt, S.A. and Ottosen, R. (2005) *Global War - Local Views: Media Images of the Iraq War*. Göteborg, Sweden: Nordiskt Informationscenter.

Nohrstedt, S.A. and Ottosen, R. (2015) 'Mediatiazation and Globalisation: New Challenges for War Journalism', in Eskjaer, M.F., Hjarvard, P.S., and Mortensen, M. (eds.) *The Dynamics of Mediatized Conflicts*. Wheaton, US: Peter Lang Publishing, pp. 149–164.

O'Brien, W.J. (2012) *Music in American Combat Films: A Critical Study*. Jefferson, US: McFarland & Co.

Oliver, M. (2004) 'Tides kill 19 cockle pickers', *The Guardian*. Available at: https://www.theguardian.com/world/2004/feb/06/china.uk (Accessed: 20 February 2016).

O'Meara, J. (2012) 'Inside the Outsider's Ear – Hyperacousia and Marginalized Character Identification', *The Soundtrack*, 5(2), pp. 121–129.

Optimum Releasing (2007) *In the Valley of Elah: Production Notes*. Available at: http://press.optimumreleasing.net/dyn/In%20The%20Valley%20Of%20Elah%20Pr ess%20Notes%20-%20Final.doc (Accessed: 5 July 2016).

Ottosson, P. (2013) 'Paul Ottosson Interview'. Interview with Kingsley Marshall for *Unpublished Transcript*, 5 May 2013.

Our War: Season 1 (2015) Directed by Stuart Bernard, John Douglas, Bruce Goodison [DVD]. UK: 2 Entertain.

Oxford Journals (1984) 'On the Soundtrack', Screen, 25(3), pp. 1–117.

Pasquariello, N. (2013) *Sounds of Movies: Interviews with the Creators of Feature Sound Tracks*. San Francisco, US: Port Bridge Books.

Patterson, J. (2007) 'To Tell the Truth', *Directors Guild of America*. Available at: https://www.dga.org/Craft/DGAQ/All-Articles/0702-Summer-2007/Director-Profile-Paul-Greengrass.aspx (Accessed: 31 October 2015).

Paul, C. and Kim, J.J. (1999) *Reporters on the Battlefield: The Embedded Press System in Historical Context*. Santa Monica, US: RAND.

Pax, S. (2003a) 'I became the profane pervert Arab blogger', *The Guardian*. Available at: https://www.theguardian.com/world/2003/sep/09/iraq.biography (Accessed: 26 June 2016).

Pax, S. (2003b) *Where is Raed?* Available at: http://dear_raed.blogspot.co.uk/ (Accessed: 10 July 2012).

Pearson, T. (2009) 'John Powell Interview', *Stage & Screen Online*. Available at: http://www.stageandscreenonline.com/downloads/john_powell.html (Accessed: 6 July 2015).

Armadillo (2010) Directed by Janus Metz Pedersen [Film]. Denmark: Soda Pictures.

Peebles, S. (2014) 'Lenses into War: Digital Vérité in Iraq War Films', in Larocca, D. (ed.) *Philosophy of War Films*. Lexington, US: University Press of Kentucky, pp. 133–154.

Peebles, S.L. (2011) Welcome to the Suck. Ithaca, US: Cornell University Press.

Peterson, M.A. (2003) *Anthropology and Mass Communication: Media and Myth in the New Millennium*. New York, US: Berghahn Books.

Phelan, S. (2004) *The Looks and the Movement: Paul Greengrass*. Available at: http://www.stephenphelan.co.uk/articles/paul-greengrass (Accessed: 1 November 2015).

Pisters, P. (2010) 'Logistics of Perception 2.0: Multiple Screen Aesthetics in Iraq War Films', *Film-Philosophy*, 14(1), pp. 232–252.

Pizzello, S. (1992) '1992 Craft Series Sound: Profile Skip Lievsay', *The Hollywood Reporter*, (320).

Pizzello, S. (1993) '1993 Craft Series Sound: Gary Rydstrom Profile', *The Hollywood Reporter*, (325).

Platoon (1986) Directed by Oliver Stone [Film]. USA: Orion Pictures.

Pogodda, C. and Gronmaier, D. (2016) '*The War Tapes* and the Poetics of Affect of the Hollywood War Film Genre', *Frames Cinema Journal*. Available at: http://framescinemajournal.com/article/the-war-tapes-and-the-poetics-of-affect-of-the-hollywood-war-film-genre (Accessed: 28 August 2016).

Point Break (1991) Directed by Kathryn Bigelow [Film]. USA: 20th Century Fox.

Powell, G.C.N. (1990) *Joint Chief of Staff (JCS) Directive; Subject: DOD National Media Pool Planning Requirements*. Available at: http://www.dtic.mil/whs/directives/corres/pdf/540014p.pdf (Accessed: 17 October 2015).

Powell, J. (2010) *Green Zone Original Motion Picture Soundtrack* [CD]. Germany: Colosseum Music.

Powell, J. (2016) 'John Powell Interview'. Interview with Kingsley Marshall for *Unpublished Transcript*, 7 September 2016.

Power of 10 (2007) [TV Series]. USA: CBS.

Prendergast, R.M. (1992) *Film Music: A Neglected Art: A Critical Study of Music in Films*. 2nd edn. New York, US: WW Norton & Co.

Prince, S. (1996) 'True Lies: Perceptual Realism, Digital Images, and Film Theory', *Film Quarterly*, 49(3), pp. 27–37.

Prince, S. (2000) 'The Score: Interviews with Film Composers: Michael Schelle', *Film Quarterly*, 53(4), pp. 69–69.

Provencher, K. (2008) 'Redacted's Double Vision', *Film Quarterly*, 62(1), pp. 32–38.

Purse, L. (2011) *Contemporary Action Cinema*. Edinburgh, UK: Edinburgh University Press.

Pötzsch, H. (2014) 'The Ubiquitous Absence of the Enemy in Contemporary Israeli War Films', in Larocca, D. (ed.) *Philosophy of War Films*. Lexington, US: University Press of Kentucky, pp. 313–334.

Ragona, M. (2008) 'Paul Sharits' Cinematics of Sound', in Beck, J. and Grajeda, T. (eds.) *Lowering the Boom: Critical Studies in Film Sound*. Chicago, US: University of Illinois Press, pp. 171–182.

Raising Arizona (1987) Directed by Joel Coen, Ethan Coen [Film]. USA: 20th Century Fox.

Rascaroli, L. (1997) 'Steel in the Gaze: On POV and the Discourse of Vision in Kathryn Bigelow's Cinema', *Screen*, 38(3), pp. 232–241.

RealFlix Media (2007) *US and Iraqis find insurgents - NIGHT*. Available at: http://www.realmilitaryvideos.com/videos/us-and-iraqis-find-insurgents-night/ (Accessed: 5 June 2016).

Reay, P. (2004) *Film Music: Soundtracks and Synergy in Contemporary Cinema*. 2nd edn. London, UK: Wallflower Press.

Redacted (2007) Directed by Brian De Palma [Film]. USA: Magnolia Pictures.

Redmond, S. (2003) 'All That is Male Melts into Air: Bigelow on the Edge of Point Break', in Jermyn, D. and Redmond, S. (eds.) *The Cinema of Kathryn Bigelow: Hollywood Transgressor*. New York, US: Wallflower Press, pp. 106–124.

Rellstab, D.H. and Schlote, C. (eds.) (2014) *Representations of War, Migration, and Refugeehood: Interdisciplinary Perspectives*. London, UK: Routledge.

Rendition (2007) Directed by Gavin Hood [Film]. USA: New Line Cinema.

Restrepo (2010) Directed by Tim Hetherington, Sebastian Junger [Film]. USA: National Geographic Entertainment.

Riehle, J. (2010) 'Exclusive Interview with Alex Joseph, Foley Supervisor for "Green Zone", *Designing Sound*. Available at: http://designingsound.org/2010/04/exclusive-interview-with-alex-joseph-foleysupervisor-for-green-zone (Accessed: 6 July 2015).

The Right Stuff (1983) Directed by Philip Kaufman [Film]. USA: Warner Bros.

Robinson, J.S. (2014) 'The Gendered Geometry of War in Kathryn Bigelow's The Hurt Locker (2008)', in Ritzenhoff, K.A. and Kazecki, J (eds.) *Heroism and Gender in War Films*. New York, US: Palgrave Macmillan, pp. 153–171.

Robinson, P. (2009) *The CNN Effect: Myth of News, Foreign Policy and Intervention*. New York, US: Taylor & Francis Group.

Rogue One: A Star Wars Story (2016) Directed by Gareth Edwards [Film]. USA: Walt Disney Studios Motion Pictures.

Rose, S. (2010) 'Paul Greengrass: the betrayal behind Green Zone', *The Guardian*. Available at: http://www.theguardian.com/film/2010/mar/08/paul-greengrass-betrayal-green-zone (Accessed: 6 July 2015).

Rubin, S.J. (2014) *Combat Films: American Realism, 1945-2010.* 2nd edn. Jefferson, US: McFarland & Company.

Ruettershoff, T. (2015) *Counterinsurgency as Ideology: The Evolution of Expert Knowledge Production in U.S. Asymmetric Warfare (1898-2011): The Cases of the Philippines, Vietnam and Iraq.* PhD thesis. University of Exeter. Available at: https://ore.exeter.ac.uk/repository/bitstream/handle/10871/20887/RuettershoffT.pd f?sequence=1&isAllowed=y (Accessed: 23 April 2016).

Runkle, B., Moh, S., Dobbins, J. and Jones, S.G. (2009) Occupying Iraq: a History of the Coalition Provisional Authority. Santa Monica, US: RAND.

Ruoff, J. (1993) 'Conventions of Sound in Documentary', *Cinema Journal*, 32(3), pp. 24–40.

Russell, K. (2016) '2016-2017 EDU Adult Opt-In Participant Information Statement and Consent Interviews example', University of East Anglia. Available at: https://www.uea.ac.uk/documents/595200/11862916/2016-2017+EDU+Adult+Opt+In+Participant+Information+Statement+and+Consent+Que stionnaires+example.doc/e2a13ddb-7899-44fc-ae4e-d9f18003a3cd (Accessed: 15 July 2016).

Ryan, M. (2011) 'From Gigli to Oscar: Composer John Powell reacts to his nomination', *Movieline* Available at: http://movieline.com/2011/01/25/from-gigli-to-how-to-train-your-dragon-composer-john-powell-responds-to-his-oscar-nomination (Accessed: 7 September 2016).

Sancton, J. (2009) 'Q&A: Filming a war of bombs in The Hurt Locker', *Vanity Fair.* Available at: http://www.vanityfair.com/hollywood/2009/07/qa-filming-a-war-of-bombs-in-the-hurt-locker (Accessed: 29 December 2016).

Sanders, B. (2013) 'Buck Sanders Interview'. Interview with Kingsley Marshall for *Unpublished Transcript*, 3 May 2013.

Sandhu, S. (2009) 'The Hurt Locker, Review', *The Telegraph*. Available at: http://www.telegraph.co.uk/culture/film/filmreviews/6099214/The-Hurt-Locker-review.html (Accessed: 29 December 2014).

Sandikcioglu, E. (2003) 'More Metaphorical Warfare in the Gulf: Orientalist Frames in News Coverage', in Barcelona, A. (ed.) *Metaphor and Metonymy at the Crossroads: A Cognitive Perspective*. Berlin, Germany: De Gruyter Mouton, pp. 299–320.

Saunders Calvert, L. (2010) 'Green Zone and the Struggle for Truth in Political Filmmaking', *Offscreen*, 14(6). Available at: http://offscreen.com/view/green_zone (Accessed: 29 December 2014).

Saving Private Ryan (1998) Directed by Steven Spielberg [Film]. USA: Dreamworks Pictures.

Saw (2004) Directed by James Wan [Film]. USA: Lionsgate Films.

Schafer, M.R. (1999) *The Soundscape: Our Sonic Environment & the Tuning of the World*. Rochester, US: Destiny Books.

Scheck, F. (2010) 'Severe Clear -- Film Review', *The Hollywood Reporter*. Available at: http://www.hollywoodreporter.com/review/severe-clear-film-review-29386 (Accessed: 10 August 2016).

Schiffer, S. (2012) 'Footsteps, Breath and Recording Devices: Abandoning a Camera-centric Construction of "Point of Audition", *The Soundtrack*, 5(1), pp. 15–28.

Schweitzer, D. (2004) *Ton & Traum: A Critical Analysis of the Use of Sound Effects and Music in Contemporary Narrative Film*, MA Thesis, Ohio University. Available at:

https://etd.ohiolink.edu/ap/10?0::NO:10:P10_ACCESSION_NUM:ohiou110848348 1 (Accessed: 24 January 2016).

Scott, A.O. (2006) 'Iraq in Fragments - movie – review', *The New York Times*. Available at: http://www.nytimes.com/2006/11/08/movies/08frag.html (Accessed: 15 January 2017).

Scotti, M. (2012) *The Blue Cascade: A Memoir of Life after War*. New York, US: Grand Central Publishing.

Seib, P. (2005) 'Hegemonic No More: Western Media, the Rise of Al-Jazeera, and the Influence of Diverse Voices', *International Studies Review*, 7(4), pp. 601–615.

Seib, P.M. (2006) Broadcasts from the Blitz: How Edward R. Murrow Helped Lead America Into War. Washington, US: Potomac Books.

Seib, P.M. (2008) *The AI Jazeera Effect: How the New Global Media are Reshaping World Politics*. Washington, US: Potomac Books.

Serena, C.C. (2014) *It Takes More than a Network: The Iraqi Insurgency and Organizational Adaptation*. Redwood City, US: Stanford University Press.

Sergi, G. (1998) 'A Cry in the Dark: The Role of Post-classical Film Sound', in Neale, S. and Smith, M. (eds.) *Contemporary Hollywood Cinema*. New York, US: Taylor & Francis, pp. 156–165.

Sergi, G. (1999) 'The Sonic Playground: Hollywood Cinema and its Listeners', *Film Sound*. Available at: http://filmsound.org/articles/sergi (Accessed: 28 August 2016).

Sergi, G. (2004) *The Dolby Era: Film Sound in Contemporary Hollywood (Inside Popular Film)*. Manchester, UK: Manchester University Press.

Sergi, G. (2013) 'Knocking at the Door of Cinematic Artifice: Dolby Atmos, Challenges and Opportunities', *The New Soundtrack*, 3(2), pp. 107–121.

Severe Clear (2009) Directed by Kristian Fraga [Film]. USA: G2 Pictures.

Shaheen, J.G. (2015) *Reel Bad Arabs: How Hollywood Vilifies a People*. 2nd edn. Northampton, US: Interlink Publishing Group.

Shaviro, S. (2010) 'Kathryn Bigelow', *The Pinocchio Theory*. Available at: http://www.shaviro.com/Blog/?p=862 (Accessed: 1 December 2015).

Shipley, D. (2004) 'The Opinion Pages: and Now a Word from Op-Ed', *The New York Times*. Available at: http://www.nytimes.com/2004/02/01/opinion/and-now-a-word-from-op-ed.html?_r=0 (Accessed: 1 December 2015).

Silverman, D. (2011) *Interpreting Qualitative Data*. 4th edn. London, UK: SAGE Publications.

Simmons, D.C. (2005) *The Dysphoric Style in Contemporary American Independent Cinema*. PhD thesis. Florida State University.

Skidelsky, W. (2009) 'Kathryn Bigelow: Director with a different take', *The Guardian*. Available at:

https://www.theguardian.com/theobserver/2009/aug/16/kathryn-bigelow-directorhurt-locker (Accessed: 29 December 2016).

Slocum, J.D. (ed.) (2001) *Violence and American Cinema*. New York, US: Routledge.

Slocum, J.D. (2006) *Hollywood and War: The Film Reader*. Abingdon, UK: Routledge.

Smith, C.M. and McDonald, K.M. (2011) 'The Mundane to the Memorial: Circulating and Deliberating the War in Iraq Through Vernacular Soldier-Produced Videos', *Critical Studies in Media Communication*, 28(4), pp. 292–313.

Smith, G. (2013) 'Momentum and Design: Kathryn Bigelow Interviewed', in Keough, P. (ed.) *Kathryn Bigelow: Interviews*. Jackson, US: University Press of Mississippi, pp. 73–90.

Smith, J. (1998) *The Sounds of Commerce: Marketing Popular Film Music*. New York, US: Columbia University Press.

Snipes, S. (2004) "Three Kings' director looks at Iraq war', *CNN*. Available at: http://edition.cnn.com/2004/SHOWBIZ/TV/11/01/soldiers.pay/index.html (Accessed: 20 February 2016).

Sobchack, V. (1997) 'The Insistent Fringe: Moving Images and Historical Consciousness', *History and Theory*, 36(4), pp. 4–20.

Soldiers Pay (2004) Directed by David O. Russell [Film]. USA: Independent Film Channel. Available at: https://www.youtube.com/watch?v=Yg1RUAq3unA (Accessed: 10 January 2015).

Sonnenschein, D. (2001) *Sound Design: The Expressive Power of Music, Voice, and Sound Effects in Cinema*. Seattle, US: Wiese, Michael Productions.

Stam, R. and Miller, T. (eds.) (2000) *Film and Theory: An Anthology (Blackwell Anthologies)*. 1st edn. Malden, US: Blackwell Publishing.

Star Wars (1977) Directed by George Lucas [Film]. USA: 20th Century Fox.

Star Wars: The Force Awakens (2015) Directed by J.J. Abrams [Film]. USA: Walt Disney Studios Motion Pictures.

Steinert, H. and Spencer, S.A. (2003) *The Culture Industry*. Cambridge, UK: Polity Press.

Stevens, R. and Raybould, D. (2015) 'The Reality Paradox: Authenticity, Fidelity and the Real in Battlefield 4', *The Soundtrack*, 8(1), pp. 57–75.

Stewart, G. (2009) 'Digital Fatigue: Imaging War in Recent American Film', *Film Quarterly*, 62(4), pp. 45–55.

Stilwell, R. (2001) 'Sound and Empathy: Subjectivity, Gender and the Cinematic Soundscape', in Donnelly, K. (ed.) *Film Music: Critical Approaches*. New York, US: Continuum, pp. 167–187.

Stilwell, R. (2003) 'Breaking Sound Barriers: The Soundscapes of The Loveless to Blue Steel', in Jermyn, D. and Redmond, S. (eds.) *The Cinema of Kathryn Bigelow: Hollywood Transgressor*. London, UK: Wallflower Press, pp. 32–56.

Stilwell, R. (2015) 'Audiovisual Space in an Era of Technological Convergence', in Richardson, J., Gorbman, C., and Vernallis, C. (eds.) *The Oxford Handbook of New Audiovisual Aesthetics*. Oxford, UK: Oxford University Press, pp. 125–145.

Stop-Loss (2008) Directed by Kimberly Peirce [Film]. USA: Paramount Pictures.

Stork, M. (2011) 'Video Essay: Chaos Cinema: The Decline and Fall of Action Filmmaking', *Indiewire*. Available at: http://blogs.indiewire.com/pressplay/video_essay_matthias_stork_calls_out_the_c

haos_cinema (Accessed: 31 October 2015).

Strange Days (1995) Directed by Kathryn Bigelow [Film]. USA: 20th Century Fox.

Swofford, A. (2004) *Jarhead: A Soldier's Story of Modern War*. London, UK: Scribner.

Tasker, Y. (2002) 'Soldiers' Stories: Women and Military Masculinities in Courage Under Fire', *Quarterly Review of Film and Video*, 19(3), pp. 209–222.

Tasker, Y. (ed.) (2004) *The Action and Adventure Cinema*. London, UK: Routledge.

Tasker, Y. and Atakav, E. (2010) 'The Hurt Locker: Male Intimacy, Violence and the Iraq War Movie', *Sinecine*, 1(2), pp. 57–70.

Taubin, A. (2009) 'Hard Wired', *Film Comment*, 45(3), pp. 31–32, 34–35.

Taylor, L.N. (2002) *Video Games: Perspective, Point-of-View, and Immersion*. MA thesis. University of Florida.

Taylor, P.M. (1992) *War and the Media: Propaganda and Persuasion in the Gulf War*. Manchester, UK: St. Martin's Press.

Telhami, S. (2012) *The World Through Arab Eyes: Arab Public Opinion and the Reshaping of the Middle East.* New York, US: Basic Books.

The Terminator (1984) Directed by James Cameron [Film]. USA: Orion Pictures.

Thanouli, E. (2006) 'Post Classical Narration', *New Review of Film and Television Studies*, 4(3), pp. 183–196.

The Thin Red Line (1998) Directed by Terrence Malick [Film]. USA: 20th Century Fox.

Thom, R. (1999) 'Designing a Movie for Sound', *Film Sound*. Available at: http://filmsound.org/articles/designing_for_sound_old.htm (Accessed: 8 January 2015).

Thompson, A. (2007) 'Greengrass brings auds into picture', *Variety*. Available at: http://variety.com/2007/voices/columns/greengrass-brings-auds-into-picture-1117969675 (Accessed: 31 October 2015).

Thompson, R.J. and Burns, G. (1990) *Making Television: Authorship and the Production Process*. New York, US: Praeger Publishers.

Three Kings (1999) Directed by David O. Russell [Film]. USA: Warner Bros. Pictures.

THX 1138 (1971) Directed by George Lucas [Film]. USA: Warner Bros. Pictures.

Tobias, S. (2009) 'Kathryn Bigelow', *A.V. Club*. Available at: http://www.avclub.com/articles/kathryn-bigelow,29544 (Accessed: 29 November 2015).

Trafton, J. (2012) "Things that almost killed me': *Apocalypse Now* and *The Hurt Locker* and the influence of 19th century spectacle art in the war film', *Frames Cinema Journal*. Available at: http://framescinemajournal.com/article/things-that-almost-killed-me-apocalypse-now-and-the-hurt-locker-and-the-influence-of-19th-century-spectacle-art-in-the-war-film (Accessed: 28 August 2016).

Trafton, J. (2013) 'The "Anti-war Film" and the "Anti-war-film": A Reading of Brian De Palma's *Redacted* (2007) and *Casualties of War* (1989)', *Journal of War* & *Culture Studies*, 4(1), pp. 113–126.

Trafton, J. (2016) *The American Civil War and the Hollywood War Film*. US: Palgrave Macmillan.

Truax, B. (2008) 'Soundscape Composition as Global Music: Electroacoustic Music as Soundscape', *Organised Sound*, 13(02), pp. 103–109.

Tryon, C. (2011) 'Digital Distribution, Participatory Culture, and the Transmedia documentary', *Jump Cut: A Review of Contemporary Media*, 53(Summer 2011).

Tuan, Y. (1990) *Topophilia: A Study of Environmental Perception, Attitudes, and Values.* New York, US: Columbia University Press.

Tumber, H. and Palmer, J. (2004) *Media at War: The Iraq Crisis*. Thousand Oaks, US: SAGE Publications.

Tumbledown (1988) Directed by Richard Eyre [Film]. UK: BBC Films.

Turnock, J. (2012) 'The ILM Version: Recent Digital Effects and the Aesthetics of 1970s Cinematography', *Film History*, 24(2), pp. 158–168.

Ullman, H., K and Wade, J.P. (1996) *Shock and Awe: Achieving Rapid Dominance*. Available at: http://www.dodccrp.org/files/Ullman_Shock.pdf (Accessed: 8 January 2015).

United 93 (2006a) Directed by Paul Greengrass [Film]. USA/UK/France: Universal Pictures.

United 93: Feature Commentary - With Director Paul Greengrass (The Bourne Supremacy, Bloody Sunday) (2006b) Directed by Paul Greengrass [Film]. USA/UK/France: University Pictures.

Universal Pictures (2010) *Green Zone Production Information*. Available at: http://static.thecia.com.au/reviews/g/green-zone-production-notes.doc (Accessed: 2 November 2014).

Universal Pictures (2016) *Jason Bourne: Production Information*. Available at: http://www.cinemart.sk/wp-content/uploads/.../Jason-Bourne---originální-AJ-presskit.doc (Accessed: 5 July 2016).

University of East Anglia (2016a) 'About UEA Research', *University of East Anglia*. Available at: https://www.uea.ac.uk/research/about-uea-research (Accessed: 15 August 2016).

University of East Anglia (2016b) 'Faculty of Arts and Humanities Graduate School Student Handbook 2016-17', *University of East Anglia*. Available at: https://www.uea.ac.uk/documents/3355211/6080017/HUM+GS+Handbook+2013-14.pdf/172850de-47f6-4717-8faa-51680b5daa32 (Accessed: 15 October 2016).

University of East Anglia (no date) 'Research Ethics', *University of East Anglia*. Available at: https://portal.uea.ac.uk/ren/research-integrity/research-ethics (Accessed: 15 January 2016).

Van Leeuwen, T. (1999) *Speech, Music, Sound*. Houndmills, UK: St. Martin's Press.

Venable, B.E. (2002) 'The Army and The Media', *Military Review*, January-February, pp. 66–71.

Vernon, A. (2017). 'Spectator-Citizen-Soldier: History, Genre, and Gender in The Hurt Locker', Modern Fiction Studies, Volume 63, Number 2, Summer 2017, pp. 373–396.

Virilio, P. (2009) *War and Cinema: The Logistics of Perception (Radical Thinkers).* London, UK: Verso Books. Walker, T. (2014) 'John Powell interview: 'I sold myself to the devil, just a bit'', *The Independent*. Available at: http://www.independent.co.uk/artsentertainment/classical/news/john-powell-interview-i-sold-myself-to-the-devil-justa-bit-9466955.html (Accessed: 7 September 2016).

The War Tapes (2006) Directed by Deborah Scranton [Film]. USA: SenArt Films.

Weber, C. (2008) 'Popular Visual Language as Global Communication: The Remediation of United Airlines Flight 93', *Review of International Studies*, 34(S1), pp. 137–153.

Weis, E. (1978) 'The Sound of One Wing Flapping', *Film Comment*, 14(5), pp. 1–15.

Weis, E. (1999) 'The Trail of the Snail: Recent Literature on Sound', *Iris*, (27), pp. 95–109.

Weis, E. and Belton, J. (eds.) (1985) *Film Sound: Theory and Practice*. New York, US: Columbia University Press.

Westwell, G. (2006) *War Cinema: Hollywood on the Front Line*. New York, US: Wallflower Press.

Wheeler, M. (2006) *Hollywood: Politics and Society*. London, UK: British Film Institute.

White, J. and Higham, S. (2004) 'Use of Dogs to Scare Prisoners Was Authorized', *Washington Post.* Available at: http://www.washingtonpost.com/wp-dyn/articles/A32776-2004Jun10.html (Accessed: 25 October 2015).

Whittington, W. (2007) *Sound Design and Science Fiction*. Austin, US: University of Texas Press.

Whittington, W. (2014) 'Lost in Sensation: Reevaluating the Role of Cinematic Sound in the Digital Age', in Vernallis, C., Herzog, A., and Richardson, J. (eds.) *The Oxford Handbook of Sound and Image in Digital Media*. Oxford, UK: Oxford University Press, pp. 61–67.

Wierzbicki, J.E. (2009) Film Music: A History. New York, US: Taylor & Francis.

Wild Palms (1993). Directed by Kathryn Bigelow, Keith Gordon, Peter Hewitt, Phil Joanou [TV Series]. USA: ABC.

Wilkins, H. (2010) 'Surfing a Political Soundscape: Kathryn Bigelow's Point Break', *The Soundtrack*, 3(2), pp. 97–107.

Williams, C. (2011) 'Learning to Redress Preemptive Deceit: *The "Iraq Dossier"*, *SAGE Open*, 1(3). Available at: http://journals.sagepub.com/doi/abs/10.1177/2158244011427060 (Accessed: 25 October 2015).

Williams, L.R. and Hammond, M. (2006) *Contemporary American Cinema*. 1st edn. Maidenhead, UK: Open University Press.

Wilson, B. (2005) 'Blurring the Boundaries: Auteurism & Kathryn Bigelow', *Cinephile*, 1. Available at: http://cinephile.ca/wp-content/uploads/2008/10/wilson-bigelow.pdf (Accessed: 20 February 2016).

Winter, J.P. and James, W. (1992) *Common Cents: Media Portrayal of the Gulf War and Other Events*. Montreal, Canada: Black Rose Books.

Winters, B. (2010) 'The Non-diegetic Fallacy: Film, Music, and Narrative Space', *Music and Letters*, 91(2), pp. 224–244.

The Wire: Season 1 (2002) Directed by Brad Anderson, Ed Bianchi, Joe Chappelle, Clark Johnson, Milčo Mančevski, Peter Medak, Gloria Muzio, Steve Shill, Tim Van Patten, Clement Virgo [TV Series]. USA: HBO.

Wood, A. (2007) 'Pixel Visions: Digital Intermediates and Micromanipulations of the Image', *Film Criticism*, 32(1), pp. 72–94.

Wood, J. (2008) 'The search for humanity', *The Guardian*. Available at: https://www.theguardian.com/film/2008/jan/31/1 (Accessed: 20 February 2016).

Woodward, S. and Robinson, P. (1992) One Hundred Days: The Memoirs of the Falklands Battle Group Commander. London, UK: HarperCollins Publishers.

Wright, G.A. (2009) 'The Desert of Experience: Jarhead and the Geography of the Persian Gulf War', *PMLA*, 124(5), pp. 1677–1689.

Ytreberg, E. (2000) 'Notes on Text Production as a Field of Enquiry in Media Studies', *NORDICOM Review*, 21(2), pp. 53–62.

Ytreberg, E. (2004) 'Formatting Participation within Broadcast Media Production', *Media, Culture & Society*, 26(5), pp. 677–692.

Zayani, M. (ed.) (2005) *Al Jazeera Phenomenon: Critical Perspectives on New Arab Media*. London, UK: Pluto Press.

Zero Dark Thirty (2012) Directed by Kathryn Bigelow [Film]. USA: Columbia Pictures.

Žižek, S. (2013) 'Zero Dark Thirty: Hollywood's gift to American power', *The Guardian*. Available at:

http://www.theguardian.com/commentisfree/2013/jan/25/zero-dark-thirtynormalises-torture-unjustifiable (Accessed: 12 November 2016).

Appendix One: Example Interview: Paul Greengrass Transcript

Preamble

KM: I'm talking to filmmakers and crew about authenticity in narrative films which document the Iraq War. With Green Zone, I've talked to Barry Ackroyd a couple of times and some of your sound crew, and also John Powell - he told me to "chase Paul Greengrass to get his side of this". The things I'm interested in are action cinema, realism, the development and production of Green Zone and your feelings now about the film.

KM: I wanted to talk first about United 93, and how you connect a sense of authenticity in your earlier documentary work to narrative filmmaking. I'm also interested in your sense of responsibility to the audience and what you wanted to achieve with the film.

PG: Well, you've always got a responsibility to your audience, whatever film you make. That responsibility is made up of different factors in different films. You know you've got a responsibility I think to the truth, to the facts, to the known facts. In other words, not just to wilfully, in subjects like that, not to wilfully misrepresent, because if you're wilfully misrepresenting, you're engaged in propaganda and such, you know? You've got a responsibility to the people involved in those events, those you're depicting. I think you've got a responsibility towards the people involved, particularly people you've depicted, obviously. And you've got a responsibility towards an audience to make the experience of watching the film have purpose, and that's obviously quite a subjective thing to give. I think it's clear when audiences experience it. That's as I see it.

KM: Green Zone, to me, sits somewhere between two spaces of big studio movies, such as the Bourne franchise and more intimate films like United 93, which tells a very different kind of story. Like United 93, Green Zone offers an account of real events and is politicised, and uses an action dynamic. Had your experience on United 93 shaped the way you wanted to tackle Green Zone?

PG: I'm sure it did, I didn't consciously, you don't consciously think things like that when you make films. What I would say is that I was determined to make a film about the Iraq conflict for sure, because it seemed to me it had driven so much of our politics, culture and all the rest of it. The genesis of it was to try and get to the heart of what had happened; how we had got into it. There was this tremendous feeling that I think still remains; a residue that people had declared that the truth hadn't been told or that tremendous misjudgements had been made that weren't being faced up to.

PG: Somewhere in that stew, that was a great toxicity that had been injected into the bloodstream here and in America. Chilcot had said exactly the same thing the other week when he appeared before the Select Committee, I think that's now accepted. Now, that doesn't mean to say that deliberate lies were told, as it were. I think the historical record isn't really clear on that. I think it's clear that the records show for sure and Chilcot stated, you know, that they strained the limits of what was reasonable to interpret in making their case – the case for war both here and in America and that's not good. So that was what I wanted to do. Obviously, we ended up creating a sort of conspiracy or action thriller out of it.

PG: I don't think it was entirely successful, if I'm honest, as a film. Well I would say this, I think for an hour and twenty, I think it was really, really successful. Then in the last act, the last twenty or thirty minutes perhaps, the film's ability to deliver in all of those three areas became muddy and a bit muddled. To me, looking back, I think it started to surrender to genre too much. But you know that's hindsight. Hindsight's a wonderful thing, you don't get hindsight when you make films; you have to try and put them somewhere, as you do, in a place. I think looking back, what I'm proud about the film is it put its finger very, very clearly in the mainstream on what the problem was, which was that the case for war was overstated and the intelligence was dealt with in a cavalier fashion. Then that was compounded by the profoundest misjudgement of all, which was to remove, to De-Ba'athify and in the process remove the Iragi Army's senior leadership. That was an absolute disaster, and that is what led fundamentally to everything else, everything else regards lrag and the latest conflict, in Syria. It begins Isis and all the rest of it, it all begins with the failure to co-opt the Iraqi Army, which was indeed the one part of the Iraqi state that was non-sectarian.

PG: I'm very proud of what it had to say, and proud of its analysis of what went wrong in that turbulent period, and I think that history vindicates that. But, as a film, I think it was too didactic to really fly. I think I felt so passionately about the issue, and felt angry about the issue because I myself had been persuaded by you know, by the Labour government and I was a member of the party. I remember those debates at the time, I certainly felt that if we can't trust our leadership, what's the point in having a Labour government? And I felt very personally affronted and let down, and I think that my anger overwhelmed, on that issue, overwhelmed the necessary dispassion that you need to have when you make a film. I think it came out in that last half hour, because I was judge and jury in my own cause. That's never the best place to start from, you need a film to be an exploration of meaning, a journey, an exploration, and I had sort of decided, at the outset what that film was going to say. So what happened was, it became flattened out and rather generic for the last half hour, I would say. There were other technical issues to do with the fact that, it was a film which was made, perceived of, as too large a film for what could be Bourne, and then of course you're sort of chasing and have to do things to try and make that work, and that all adds to the generic nature of the last half hour. But that's my take on it, but I think for an hour and a half, I'm very proud of it and I still remain proud of it as a job. I'm proud that I made a film that stated clearly what I think about that time.

KM: In that final act – that challenge of telling the story through its genre – was that the story when you embarked on the production, there were no other pressures apart aside from that?

PG: No pressures at all. No, no, no pressure. None at all.

KM: I wondered, because there were some changes in the studio around the time, but that was nothing to do with it?

PG: Nothing at all.

KM: It's interesting how genre conventions affect the way that we tell a story. You say something in your David Lean Lecture that narrative cinema is able in some ways to fill the gap between news coverage and other forms of media. Talking to

other crew in relation to the making of the film, there was a push for authenticity in production which really lends itself to your style. I wondered if that created any difficulties in telling the story?

PG: No that wasn't a problem, in fact I would say that that's an abiding strength of the film. I think it's a film that naturally put you in Iraq, one of the very few that did and really showed you the surreal nature of the place. You know, I thought it was superbly realised in terms of Baghdad and the chaos, and the Saddam palaces cheek by jowl with the chaos of the urban markets, and you could feel it brewing up into the conflict it became.

KM: I noticed something else in the analysis of the film in that the main camera in the film takes the...

PG: If your thesis is that there was studio interference, then you're 100% flat wrong.

KM: A lot of scholars talk about this war being very difficult to narrativise, because it hadn't ended by that point. What's interesting about this movie for me is that the first 20 minutes are about the search for WMD and as soon as Miller understands that they're not there, the narrative focuses on the bigger picture.

PG: Why? Did it change to something else? I don't think it did.

KM: No, I think his journey changes, rather than the film. His journey changes in what he's looking for. It becomes about the wider implications of the war.

PG: I wanted to tell a story of a man, whose journey was our journey, my journey, all of our journeys. And our journey fundamentally, I mean if you exclude that large minority, and it was large, but it was a minority of people who were always opposed to the war, right? If you leave that and take a majority view in Britain and in America, most people accepted what was said, that there were weapons of mass destruction there and this had led to the intervention, right?

KM: Yes.

PG: And most people's journey was that same journey. I certainly remember vividly when troops went in, I just assumed that I was going to wake up a day or two later and they would produce, you know, weapons factories and all the rest of it. It was an absolute amazement to me, and I think to everybody or certainly the vast majority, that there was nothing there. That was the point and then that begs the question well what the fuck? What the fuck, what, why, how? Who's responsible? Why did this occur? And that is the journey that Miller goes on, he goes in there doing as if it were his duty. That is why I conceived of that character, a character who was - as those men really were - engaged in those mobile teams whose job it was, as soon as the troops went across the border, to dive in fast, and find and secure these sites. I mean that was his job you know and there were such teams. Once he realised, I mean in that opening scene, "Oh bloody hell, there's nothing here," but more to the point, there's obviously never been anything here. Then he asks the question that we all ask, which is, "How come? What? How come? Who sent me here and why?" His journey becomes a journey then towards an answer to that question, which is that the intelligence was manipulated, which it

indeed was, in order to send him there, in order to make a case for war. Secondly, he does that, and undertakes that journey at a time when he realises, or comes to realise very clearly, that they're in the process of betraying the Iraqi Army who were, without a doubt, in a position to be co-opted. Instead they were disbanded, the leadership cast out and, of course, what happened was they took their weapons and stuff. The rest is history. That became then the insurgency, and that is the journey that we all went on.

PG: That's the journey of the film. And I think that the film really delivers on that. The only issue is that I was seduced by myself into feeling that we needed to deliver on more ... it slipped toward genre. I felt that it paid itself off thematically and character-wise, but that took an edge off it. That's all. I don't think it destroyed it. I'm very proud of it, but it was always going to be a difficult sell to an audience because people were sick of Iraq – they were getting it on their television all the time.

KM: I wondered about that in terms of aesthetic choices and choices in sound, camera and edit, of how close to news coverage or documentary coverage you wanted to be? There were a few documentaries that had been released using footage from cameras that were operated by combatants. I'm interested about the nature or the difference between actuality and kind of genre or narrative filmmaking techniques and the decisions you made in the development of the film.

PG: Well, I don't remember any particular decisions. I mean I wanted it to feel like we were there, and we were in Baghdad, so in a way, like our previous question, I think that effect. I mean it's a long time since I looked at it and made it, but my memory is that coming into the place that felt, and going over the bridge, coming into that weapons site or alleged weapons site, that all felt very, very, real to me and then, you know, then I laughed that you had this other landscape that was the Green Zone, which was this oasis. It's a surreal oasis of former Saddam palaces, all absolutely in a state of destruction, but actually very beautiful architecture and all of that. And the huge palace, and the occupation and the surreal nature of that.

PG: Then the brewing, I can remember there was that thing where they turned up in the street, and the chaos of the street. You can feel the temperature boiling over because nobody's got any water. You know that was a great problem, they literally decapitated an advanced state and, of course, within two or three days it was chaos, and they've never recovered from that. The one thing that they could have done, that they should have done, you know, there's no doubt about it and it's all now accepted now although it wasn't when I made that film, it absolutely was not, but now it's absolutely entirely accepted by everybody is that the great mistake was not to secure the Iraqi bureaucracy and the Iraqi military, because you can't take a modern state and take everybody out, it just collapses. There is no water, no sewage, no fuel no security. And then of course, what happened then, if you alienate the Army, of course, they're going to go to the weapons dumps, get their weapons, and they're going to fight you.

KM: Yes, time has taught us that.

PG: You know, I think, I think, my sense would be that, and I think that it's I thought, I thought that it was a strength of *Green Zone* vis-à-vis *The Hurt Locker*, which I thought was a very fine film, but I thought one of the things that was very

strong about *Green Zone* was that it had an analysis of what that conflict was. Why it had occurred and where it was going. I think it fits it very clearly and with real voracity at a time when it was a turbulent maelstrom.

ENDS

Appendix Two: Example Participant Release Form

Kingsley Marshall, Senior Lecturer/Head of Film School of Film and Television Falmouth University, Treliever Road, Penryn, UK TR10 9EZ

Research Project: PhD Thesis: The Gulf War Aesthetic: Space, Place and Unification of Film Sound

University: University of East Anglia

Student Name: Kingsley Marshall

Student Number: 4511107

PARTICIPANT INFORMATION STATEMENT

(1) What is this study about?

You have been invited to participate take part in a research study about your experiences as a feature film practitioner, who has worked on one or more of two case study films *The Hurt Locker* and/or *Green Zone*.

The central argument of the study is that the representation of the Iraq War in these films differ from representations of earlier conflicts, and the manner with which this representation has been impacted by the unique circumstances of these conflicts and reflect other forms of representation including combatant-originated footage, news reportage, video games, and documentary.

This Participant Information Statement tells you about the research study. Knowing what is involved will help you decide if you want to take part in the study. Please read this sheet carefully and ask questions about anything that you don't understand or want to know more about. Participation in this research study is voluntary. By giving consent to take part in this study you are telling me that you:

Understand what you have read.

Agree to take part in the research study through an interview as outlined below.

Agree to the use of your transcripts as described.

(2) Who is running the study?

The study is being carried out by Kingsley Marshall, Senior Lecturer/Head of Film, Falmouth University as part of Kingsley's work as a PhD Candidate at the University of East Anglia.

(3) What will the study involve for me?

Your participation will involve an interview conducted at a time that is convenient to you. The interview will be audio recorded. You will be asked questions relating to your practice. You will be able to review the transcript of your interview, if you wish, to ensure that it is an accurate reflection of the discussion.

(4) How much of my time will the study take?

It is expected that each interview will take between 30-60 minutes.

(5) Are there any risks or costs associated with being in the study? Aside from giving up your time, I do not expect that there will be any risks or costs associated with taking part in this study.

(6) What if I would like further information about the study? When you have read this information, I will be available to discuss it with you further and answer any questions you may have. You can contact me on kingsley.marshall@falmouth.ac.uk or 44 7776 040668.

(7) Will I be told the results of the study?

You have a right to receive feedback about the overall results of this study. You can tell me that you wish to receive feedback by providing contact details on the consent section of this information sheet. This feedback will be in the form of an electronic copy of the thesis as a whole following examination, or the chapter directly related to your contribution.

(8) What if I have a complaint or any concerns about the study?

The ethical aspects of this study have been approved under the regulations of the University of East Anglia.

If there is a problem please let me know. You can contact me at the following address: Kingsley Marshall School of Film & Television Falmouth University Penryn Cornwall, UK TR10 9EZ kingsley.marshall@falmouth.ac.uk +44 7776 040668

(9) What do I do next?

Please complete one copy of the following participant consent form and return to kingsley.marshall@falmouth.ac.uk

PARTICIPANT CONSENT FORM (1st Copy to Researcher)

I, PAUL GNREAGES [PRINT NAME], agree to take

In giving my consent I state that:

I understand the purpose of the study and what I will be asked to do.

✓ I have read the Participant Information Statement and have been able to discuss my involvement in the study with the researcher if I wished to do so.

 The researcher has answered any questions that I had about the study and I am happy with the answers.

✓ I understand that the interview is recorded but that I may stop the interview at any time if I do not wish to continue. I also understand that I may refuse to answer any questions I don't wish to answer and that a transcript will be sent to me in due course. Should you wish to correct or alter the transcript, you will be free to do so at this point.

✓ I understand that the material may be made available on request for assessment by institutional staff and external examiners only. This information will only be told to others with my permission, except as required by law.

✓ The named student reserves the right thereafter to quote from transcripts (identifying you by name) in the named research project. Your interview will not be published anywhere in its entirety. It will not become a public reference resource.

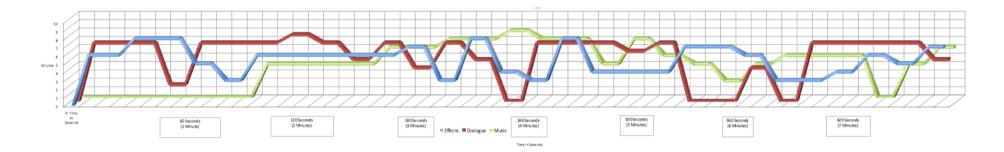
I consent to:

		/		
Audio-recording	YES	Ø,	NO	- 1
Reviewing transcripts	YES		NO	1
Would you like to receive feedback	YES		NO	1
about the results of this study?				

If you answered YES, please indicate your preferred form of feedback and address:

Postal: Email: 19th Mun Jol 7

Appendix Three: Example Diagram of an Intrasoundtrack Analysis (Marshall, 2016)



									01:00	0
	Time	Volume	0	Vol		Vol		Vol		Vol
onds mn - Effects	0		15		30		4	5	6	5
nn - Effects ne - Dialogue	0	6	6	6	8	8		8 8		2
ne - Music	ő	0	ó	0	ó	0		0 0	(0
	Timing in									
ge Events		Image Event (Shot Type)	Time	Image Event (Shot Type)						
O PROVIDE AND A PROVIDA AND A	0.32	Title Card - Green Zone	0.11	Exterior Humvee (Mid Shot)	0.31	Rear of truck, other side (CU)	0.43	7 Crash zoom to Miller through windscreen (CU)		Miller pushes through US troops (MS)
Contraction of the sector	0.40	Title Card - 4 Weeks Later	0.13	Crash Zoon of convoy (Wide Shot)	0.33	Miller through window (CU	0.48	8 Pan to looters (WS)	1.0	3 Reverse Shot of Miller POV (WS)
NEO ACE ACTOR	0.50	Intel Report (Eextreme Close Up)	0.19	Rear of truck, US troops (WS)	0.34	POV Back of truck of tower block (MS)	0.5	5 Crowd running (Very Wide Shot)	1.04	4 Miller then pan to Asira (CU)
0	0.11	Miller through window (Close Up)	0.21	POV from truck (MS)	0.37	Gunner (CU)	0.52	2 Humvee arrives (WS)	1.0	6 Troops around Humvee (WS)
			0.23	RS of US troops in truck (CU)	0.38	Pan down to Miller (CU)	0.55	5 US Soldiers disembark (Extreme Wide Shot)	1.00	8 Miller (CU)
			0.26	Miller through window (CU)	0.41	Convoy on bridge (WS)	0.56	5 POV of US troops (WS)	1.1	1 OTS Asira (CU)
			0.27	Rear of truck, US troops (WS)	0.44	POV from US troop at site, convoy arrives (CU)	0.57	7 POV of Miller, injured US Soldier (WS)	1.13	3 Whip pan to assistant
									1.14	4 Miller & Asira (CU)
io Events		Audio Event (D - Dialogue, E - Effects, M - Music)		Audio Event (D - Dialogue, E - Effects, M - Music)		Audio Event (D - Dialogue, E - Effects, M - Music)		Audio Event (D - Dialogue, E - Effects, M - Music)		Audio Event (D - Dialogue, E - Effects, M
		D - On the air, radio, 35-niner		D - Miller - calling instructions		E - Car horn		E - Car horns		D - Miller Who's the officer in charge?
		E - Typewriter		E - Revving engine, truck engine note		E - Gunfire, two tones		E - on the air sound		E - Gunshots
	1111	E - Radio		E - Pedestrians praying		D - Humvee gunner - Right Side		E - Revving engines		D - Lt Asira - Right here
	11.11	E - Revvina Enalne		E - On the air - radio walla		D - Miller - Shots fired		E - Gunshots (closer)		E - Roar/walla of crowd
		D - Miller - Military Storage Site		E - Fall of bottle on road		E - Crowd walla		E - Screaming		D - Miller - what are these looters doing here
**************************************						E - Gunfire		E - Screech of trucks		D - Miller (shouts above noise) this is a WMD
								D - Troops - Move move		E - Footsteps
								E - Screaming		