THE PALGRAVE HANDBOOK OF SOUND DESIGN AND MUSIC IN SCREEN MEDIA

INTEGRATED SOUNDTRACKS

Edited by Liz Greene and Danijela Kulezic-Wilson

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Liz Greene • Danijela Kulezic-Wilson
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Integrated Soundtracks

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Danijela Kulezic-Wilson teaches film music, film sound and comparative arts at University College Cork. Her research interests include approaches to film that emphasize its inherent musical properties, the use of *musique concrète* and silence in film, the musicality of sound design and musical aspects of Beckett's plays. She is the author of *The Musicality of Narrative Film* (2015) and has published in journals such as *Music and the Moving Image*, *The New Soundtrack,* *Alphaville* and *Music, Sound and the Moving Image*.

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CHAPTER 1

Introduction

Liz Greene and Danijela Kulezic-Wilson

The idea for this book has been a long time in gestation. We found ourselves conducting doctoral research at the same time, in the same institution (University of Ulster, Coleraine), and discovered a common interest in the totality of the soundtrack, although working in the separate disciplines of film music (Kulezic-Wilson) and film sound design (Greene). We shared many conversations exploring this terrain in some depth, which over time evolved into the idea of producing a co-edited book on sound design and music. This anthology expanded beyond our initial plans in terms of its length and the range of material under investigation to include a broader conceptualization of sound and music in screen media. This resulted in addressing areas of research that lay outside one or other of our areas of expertise, which we found to be both an advantage and a challenge. One of the clear advantages of having our previous training in different camps is that each of us was able to harness knowledge from our own area of research while posing questions about the others. The challenge was that we sometimes found we had different understandings of the same terms, or used and applied terminology differently. This nevertheless led to many fruitful conversations which allowed us to tease out the specific (inter) disciplinary issues of this volume which, we believe, is to its benefit.

The recent surge of scholarly activity addressing the habitual separation between audio and visual aspects of film in theory, pedagogy and practice may have alleviated the long-standing underrepresentation of sonic aspects of film in scholarship but it has also elucidated another division within the discipline, that between film sound and film music. While some scholarly conferences and symposia encourage the integration of these two sub-disciplines

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in every possible way except in name, a number of recent monographs and edited publications about sound and music make it clear that the segregation still persists. One of the reasons for this, of course, is the same one that kept film music scholarship separated from the rest of film discourse for decades, namely the lack of musical education and possibly terminology which would give non-music specialists the confidence to address musical aspects of film. At the same time, a palpable resistance among some film music scholars to include sound in their field of research has exposed surprising signs of territorialism in a field which prides itself in being multidisciplinary. However, the fact that boundaries between scoring and sound design in contemporary cinema are becoming increasingly blurred has affected both film music and sound studies by expanding their range of topics and the scope of their analysis beyond those traditionally addressed. The use of *musique concrète* in sound design, the integration of speech and/or sound effects into film scores as well as musically conceived soundscapes—to mention only some examples of innovative techniques—demand new approaches to the study of the soundtrack which are prepared to consider the increasingly intertwined elements of silence, noise, speech, sound effects and music as an integrated whole.

This anthology does not attempt to offer a foundational theory for film sound or film music since the groundwork for both disciplines has been firmly laid already. One of the first significant publications to alert the field of film studies to the relevance of film sound and film music came in 1980 with a special edition of *Yale French Studies* on 'Cinema Sound' edited by Rick Altman. Since the mid-1980s when two seminal books appeared within two years— *Film Sound: Theory and Practice*[1] edited by Elisabeth Weis and John Belton (1985) and Claudia Gorbman's *Unheard Melodies: Narrative Film Music* (1987)—both disciplines have flourished remarkably, opening up numerous questions about the creation, function and perception of sound and music in film and setting out directions for further research in many significant monographs and edited collections, too numerous to be all listed here. The intention of this volume is rather to move the discussion forward by bringing these two fields together through the idea of an integrated soundtrack. The necessity to consider and communicate the functional interdependence of all elements of the soundtrack and the result of their joint accomplishment has already been addressed by some scholars in journal articles, historical volumes and monographs, including Michel Chion's highly influential *Audio-Vision* (1994); David Sonnenschein's practice-based exploration of music, voice and sound effects in *Sound Design* (2001); the meticulously exhaustive study of music and sound in film history *Hearing the Movies* by James Buhler, David Neumeyer and Rob Deemer (2010); and the most recent historical account of soundtrack development in *Sound: Dialogue, Music, and Effects* edited by Kathryn Kalinak (2015). In terms of advancing an interdisciplinary discussion that concerns various aspects of and a range of approaches to audiovisual media, notable steps were taken recently in two remarkable handbooks published by Oxford University Press—*New Audiovisual Aesthetics* (Richardson, Gorbman and

Vernallis, 2013) and *Sound and Image in Digital Media* (Vernallis, Herzog and Richardson, 2013). A number of specialized journals that appeared in recent years established their inclusive reputation by encouraging submissions in areas pertaining to all elements of film soundtrack, including *Music, Sound and the Moving Image* (2007–), *The Soundtrack* (2008–), *Music and the Moving Image* (2008–), *The New Soundtrack* (2010–), *Screen Sound Journal* (2010–) and *SoundEffects* (2011–).

A boundary-breaking ethos is also at the heart of this volume which has been conceived with the specific intention of bridging the existing gap between film sound and film music scholarship by bringing together distinguished scholars from both disciplines who are challenging the constraints of their subject areas by thinking about the soundtrack in its totality. This is also emphasized by the title of this anthology which, in comparison to other recent publications that address both sound and music, takes sound *design* and music as the subjects of its investigation. Francis Ford Coppola first used the term sound design in cinema to offer a screen credit for the creative work of Walter Murch on *Apocalypse Now* (Francis Ford Coppola, 1979), reflecting Murch's multifaceted involvement in the post-production of the film. Sound design evokes the idea of a 'holistic' approach to film and soundtrack and is considered here in that broadest sense from pre-production through production and into post-production, in contrast to narrower definitions which emerged later, referring mostly to the production of sound effects in post-production. The subtitle 'integrated soundtrack', on the other hand, refers for our purposes to practices, theories and histories, that consciously combine sound design and music into the overall concept and design of screen media. And while in some chapters the primary focus of investigation leans more towards either sound design or score for the purpose of in-depth discussion, each recognizes the functional interdependence of all sonic elements and that an effective soundtrack is the result of their joint achievement.

Another objective of this book is to look beyond the director as auteur and investigate the critical production of the screen media soundtrack with attention to sound and music personnel considering issues at stake below and above the line, exploring the whole process of producing an integrated soundtrack and outlining the distinct procedures involved in its creation. The collaborative media of filmmaking, animation, game design and television production are addressed not only in scholarly chapters but also through interviews with key practitioners that include sound recordists, sound designers, composers, orchestrators and music supervisors who honed their skills on films, TV programmes, video games, commercials and music videos.

While this anthology addresses historical events and circumstances that affected the evolution of the soundtrack either in terms of departmentalization or integration, most chapters focus on contemporary works, highlighting different practices from experimental, avant-garde and art house cinema to blockbuster films such as the enormously successful *Gravity* (Alfonso Cuarón, 2013), the subject of two chapters of this handbook. Many examples draw

from art house cinema or independent filmmaking and many of these works come from Anglophone cinema. Chapters exploring aspects of French, Chinese and Japanese cinema broaden the focus of the works covered but it must be noted that there are whole regions, nations and continents that do not receive their deserved attention within this anthology. This is partly due to how the anthology evolved but also reflects the work being undertaken in the field, illuminating the need for further research into integrated approaches in non-Anglophone cinema.

On the other hand, the topics investigated in this anthology reflect accurately the concerns and interests of contemporary scholarship and not only that which deals with music and sound. The concepts of presence and immersion have been for some time on the list of 'hot' topics in film theory, posing questions about the relationship between corporeal and cognitive types of perception and response to cinema (see Elsaesser and Hagener, 2010), but also between different aesthetic and philosophical approaches to the ideas of cinematic form and storytelling (Jaffe, 2014). The enduring fascination with the dichotomy of body and mind—or the emphasis of one over the other—is apparent in this volume as well, epitomized in distinct sections discussing corporeal and affective aspects of cinema perception and representation on the one hand and more elusive issues of time and memory on the other. Amidst concerns about the nature of audiovisual spectatorship and representations of consciousness and time, history and memory, body, affect and violence, another theme looms large in this volume, that of boundary- and convention-breaking, inspiring innovative scholarship about the most current and relevant developments in both theory and practice. And while some chapters emphasize the historical or artistic and aesthetic contexts that enabled new practices to flourish, others focus on the unavoidable issue of technology. An ingredient of modern life which permeates every aspect of our existence and almost all our activities, technology is considered here not only as a catalyst of change and innovation but also as a mirror held up to humanity.

The content of this anthology could have been structured in a number of ways as there are many topical overlaps among the chapters. Its division into seven parts is to facilitate easier navigation, but the section headings—Boundaries and their Disintegration; Presence, Immersion, Space; Listening: Affect and Body; Time and Memory; Breaking Conventions; The Sound of Machines and Non-Humans; and The Musicality of Soundtrack—should by no means be perceived as boundaries and we certainly expect that they will not lessen the communication between chapters.

Boundaries and their disintegration is one of the running themes of this book and although only the title of Part I cites this topic directly, it is pertinent to many chapters, permeating the discussions about industry, labour, technology, aesthetics and audiovisual spectatorship. In Chapter 2, Liz Greene addresses the conceptual demarcations between noise, sound, sound effects, music and silence, commenting on the ambiguities in their definitions and the way their use in the audiovisual context emphasizes their shared qualities. Using primarily

examples from Alan Splet's work on David Lynch's films, Greene demonstrates how the sounds—or noises—that 'we have learned to ignore', whether because they are perceived as silence or as a 'lack of sound', can have not only meaningful but also a highly effective role in sound design. Her point about the emotional impact of sound design that 'sounds like noise but acts like music' resonates with arguments from a number of other chapters and the increasing scholarly interest in dissipating boundaries between soundtrack elements and their functions. Greene's argument is complemented by her interview with Ann Kroeber in Chapter 3, which considers the collaborative roles of sound recording and sound design in screen media industries. Kroeber worked alongside her partner Alan Splet until his death in 1994 and has continued to work in film and video game sound. She discusses her work as a woman in a male-dominated field and stresses the positive developments in recent years in the film and game industries. The owner and curator of *Sound Mountain*, a sound effects library, Kroeber is also a specialist in animal recordings. In this interview, she talks about her approach to animal vocalization on *Duma* (Carroll Ballard, 2005), the musicality of animal sound and how through her sound design she was able to place the animal voices alongside the music track. She also discusses the production sound and music in *Blue Velvet* (David Lynch, 1986), her work on games and her collaborative approach to pedagogy.

The demarcations that Greene addresses in her chapter were in many ways defined by the organization of departmentalized labour in the Hollywood industry which affected the division between music and sound departments. As Gianluca Sergi reveals in Chapter 4, this division has its roots in the era when the introduction of synchronized sound started to threaten the jobs of musicians employed by the industry for live screen performances. The fierce fight to protect these jobs and the propaganda battle led by the American Federation of Musicians during their Music Defense League campaign, Sergi argues, eventually 'slammed the door on closer integration of music and sound in the cinema right at the very moment when sound departments were being established', with familiar consequences. The gradual disintegration of these boundaries many decades later and various forms of collaboration between sound and music departments can be attributed to several factors, including advancements in technology and the influence of changes in contemporary music, as discussed by Andy Birtwistle and Martine Huvenne in later sections in their respective chapters. The impact of the former in particular looms large in this volume, as many of our contributors address various forms of transformations and innovations in screen media resulting from the use of digital technology.

In Chapter 5 Sergi Casanelles argues that the extensive use of computer technology in sound and music (post)production creates a *hyperorchestra*—a virtual music ensemble which facilitates a music creation process that transcends the foundations of Western classical music based on the musical score. This virtual orchestra employs *hyperinstruments*—an array of traditionally recorded instruments, synthesized sounds or virtual instruments from sample libraries which are tailored to the needs of the audiovisual context by using

sound processing and mixing. Casanelles contends that this manipulation of musical content produced by hyperinstruments in the process of hyperorchestration erases ontological differences between music and sound design, naturally encouraging integration of the soundtrack elements.

In Chapter 6 Kevin Donnelly also emphasizes the importance of technology in developing composers' taste for manipulating sound electronically, allowing the integration of recorded sound effects with music. His discussion about the interchangeable quality of musical and sound effects in an audiovisual context extends to the world of video games, focusing on the similarities and overlaps between the *Silent Hill* game and film franchises. Donnelly posits that using game soundtracks as a model for the *Silent Hill* film soundtracks resulted in the subversion of their classical roles, creating sound effects that have an emotional character and music that appears unemotional and mechanical, evocative of the role of traditional sound effects.

In Part II, with a focus on the listening space of the audience Miguel Mera, as well as Gilbert Gabriel and David Sonnenschein, suggest ways to interpret spatial boundaries in sonic terms, their chapters offering distinctly different analyses of *Gravity*. In Chapter 7 Mera considers *Gravity* alongside other films set in the vacuum of outer space in order to tease out the differences between *immersion* and *presence* with a focus on Dolby Atmos sound and how this new technology has had an impact on the audience's listening space. Mera makes a compelling argument for adopting the more experiential, psychologically correct term *presence* over the more commonly applied screen media term *immersion*, concluding that in *Gravity* 'the soundscape moves beyond a purely objective-internal perspective and encourages the audience to *become* Ryan Stone' (the protagonist played by Sandra Bullock).

In Chapter 8 Gilbert Gabriel and David Sonnenschein, on the other hand, focus solely on *Gravity* to offer their conceptual models of 'sound spheres' and 'dream states' to illustrate how sound design and music are deployed at various points throughout the film to represent the main character's physical and psychological diegetic world and the audience's listening position. Gabriel and Sonnenschein contend that the protagonist's subjective experience can be best illustrated through close analysis of the film text and readings of the soundtrack through examination of speech, sound design and music. They turn to the writings of Michel Chion and Theo Van Leeuwen in order to describe the aural and mental journey undertaken by Ryan Stone as she attempts to make her way back to earth.

In Chapter 9 Martine Huvenne offers different case studies with *Last Days* (Gus Van Sant, 2005) and *Atonement* (Joe Wright, 2007) in order to explore how we listen to film soundtracks. She adopts a phenomenological theoretical frame that outlines issues of demarcation between sound effects and music. In her examples she discusses the incorporation of sound effects and field recordings into the films' sound design and score such as the inclusion of Hildegard Westerkamp's previously produced sound composition in the sound design of Blake's (Michael Pitt) walk in the woods in *Last Days*, and the sound of Briony's (Saoirse Ronan) typewriting featured in Dario Marianelli's score in

Atonement. Huvenne proposes that the listening position of the audience is key to determining what is considered sound or music within a screen text. Continuing the discussion of Marianelli's score, Miguel Mera's illuminating interview with the composer in Chapter 10 explores the integration of sound and music in Joe Wright's films *Atonement*, *The Soloist* (2009), and *Anna Karenina* (2012). Marianelli outlines the opportunities and challenges in representing truth in fiction films and his desire to convey through music deeper layers of the protagonists' emotional characterization.

In Part III, this theme of listening continues with a focus on affect and the body. In Chapter 11 James Wierzbicki discusses numerous examples of sound effects in cinema with the goal of seeking out how sound operates as sound affect. He argues that sound effects often closely match what is seen on screen but if sound is 'treated in a way that makes it somehow stand apart from the film's norm, the ring or the bark or the clink can be something quite remarkable'—an affective sound can be created. Wierzbicki offers an historical overview of sound effects in film and details the implication that Dolby noise reduction had on how we listen in the cinema. He concludes with examples of how the treatment of sound through point of audition (Michel Chion's term, which is an aural equivalent to point of view) can affectively impact an audience.

In Chapter 12 Tony Grajeda also draws on Chion's concept of point of audition to illustrate how this can be a very effective way for the soundtrack to be more clearly heard. Using examples from *Saving Private Ryan* (Steven Spielberg, 1998), *Three Kings* (David O. Russell, 1999), *The Pianist* (Roman Polanski, 2002), *There Will Be Blood* (Paul Thomas Anderson, 2007), *Children of Men* (Alfonso Cuarón, 2006), and *Cop Land* (James Mangold, 1997), Grajeda posits that when a character on screen is in danger of losing their hearing, 'in such cinematic moments of extreme point-of-audition … subjectivity through sound is amplified through its near absence, when we are asked to experience a privileged perspective aurally as paradoxically a form of rupture'. Grajeda argues that this moment of hearing loss and trauma can provide the most significant aural close-up within the soundtrack, offering detail amidst absence.

Lisa Coulthard continues this investigation into listening to violence and affect in Chapter 13, exploring the ideas of acoustic disgust and sonic hapticity as a means to reconsider violence in screen media. She offers examples of sounds that are unlistenable due to their sonic properties and issues of proximity and intimacy. Drawing on research from over 100 scenes of violence in film and television, Coulthard's analysis surveys the type of sound heard within specific contexts, challenging ocularcentric conclusions. She contends that 'moist' sounds are the most disgusting for audiences as 'the already disturbing intimacy of the mouth in addition to the discomfiting defamiliarization of the ordinary (breath, mouth sounds, food sounds) combines with the audio close-up to create the "too close" and "too far" of violent disgust and excessive violence'.

The topics of time and memory permeate all the chapters in Part IV even though each chapter focuses on different aspects of temporality and its representation through sound. In Jacques Rivette's *L'amour fou* (1969), discussed by Byron Almén and James Buhler in Chapter 14, the narrative time-line is fractured, starting from 'the end' and then 'rewound' to take us through the story of the unravelling of a marriage, possibly through the prism of the protagonist's memory. Almén and Buhler's analysis draws on Deleuze's concept of the crystal image where the difference between the real object and its mirror image is indiscernible. While elucidating a complex series of representational reflections epitomized in different layers of narration and temporality, Almén and Buhler focus on the use of sound and music to show how the couple's crumbling relationship is reflected in an increasingly disjointed treatment of sound.

In Robynn Stilwell's and Philippa Lovatt's chapters time is considered in relation to acoustic spaces which can signify a particular place, genre, culture or social context. In Chapter 15 Stilwell looks at different versions of the *Quatermass Experiment* television serial (1953 and 2005) and the 1955 *The Quatermass Xperiment* film, using them as case studies for exploring generic tropes and aesthetic parameters of different media formats. Her analytical comparison of the original *Quatermass* series (BBC, 1953) with the 1955 film version and the 2005 television remake illuminate both the specificities and the cross-media influences between the soundscapes of the different versions—the influence of radio aesthetics in the original television production, the shift of emphasis from science fiction to horror in the 1955 Hammer film—offering a unique insight into how sonic identification of a medium or genre is shaped by historical context and available technology. In Chapter 16 Lovatt, on the other hand, explores the construction of social and cultural spaces through sound and music in Jia Zhangke's Hometown Trilogy set during the 1970s and 1980s in rural northern China, and how music communicates the relationship between memory and history. From traditional to revolutionary and propaganda songs of the early post-Mao period, through illegal Taiwanese pop music, the sounds of Bollywood emanating from the local cinema to the electronic rock music of the reform-era, music in Zhangke's films is used to communicate the passing of time and the characters' adjustment to social and cultural transformations following the end of the Cultural Revolution.

Lovatt also draws attention to how the introduction of tape recorders and cassettes challenged the constrictions imposed by the communist regime, allowing people to create their own listening spaces defined by their own musical choices. The format of music's representation is at the heart of Chapter 17 in which Ian Garwood explores the narrative significance of vinyl records in American Indie films of the 1990s and early 2000s which appeared at the time when the commercial market was dominated by the CD format, making vinyl 'a sign of subcultural distinction'. Garwood's lucid analysis of *The Royal Tenenbaums* (2001), *Pulp Fiction* (1994) and *Ghost World* (2001) demonstrates that the overt references to vinyl in these films and its aural signature marked by surface noise, scratches and crackles are not only symptoms of fetishizing a

particular era or subculture but also have an expressive weight in terms of narrative commentary and characterization.

Curiously enough, Garwood's and Lovatt's chapters are the only ones in this anthology which are concerned with compilation scores of predominantly popular music, suggesting that the concept of an integrated soundtrack is possibly more readily associated with originally composed scores. Garwood's chapter, though, as well as Huvenne's chapter which deals with the rather unconventional compilation score in *Last Days*, addresses some of the finest examples of the practice that has become known as 'auteur music' owing to directors' hands-on approach to music which is treated as a 'key thematic element and a marker of authorial style' (Gorbman, 2007, p. 149). And while the idea of a *mélomane* director in full charge of the compilation scoring rings true in the cases of directors such as Wes Anderson, Quentin Tarantino and Gus Van Sant in his Death Trilogy phase, the last contribution in Part IV, Meghan Joyce Tozer's interview with Brian Reitzell in Chapter 18, reminds us that the role of a skilful music supervisor should not be underestimated either. A former punk drummer, music supervisor, composer and long-term collaborator of Sofia Coppola who worked as music supervisor on *The Virgin Suicides* (1999), *Lost in Translation* (2003), *Marie Antoinette* (2006), *The Bling Ring* (2013) and on the latter as composer as well, Reitzell disperses some myths about the know-it-all approach of director-*mélomanes* and offers valuable insight into his 'collage'-like approach to choosing pre-existing music for some of the most celebrated compilation scores of Indiewood.

Shifting boundaries and breaking moulds are among the defining characteristics of contemporary audiovisual culture which are frequently addressed in this anthology. Forces of transformation are often the product of a combination of different influences and, as argued in the first two chapters of Part V, issues of economy and technology often play important roles in provoking new approaches. In Chapter 19, which focuses on the adoption of digital synthesizers by film sound professionals in the early 1980s, Katherine Spring draws on the concept of 'transectorial innovation' introduced by Paul Thèberge (1997) in order to demonstrate how this process inspired some sound editors to adopt a new understanding of their job in musical terms, as 'sound composers'. Examining industry magazines from that period, Spring reveals the main concerns that surrounded this shift in practice which include questions about the role of human creativity in relation to computer technology, the authenticity of synthesized sound and how the new technologies stimulated the merging of the two previously distinct duties of music composition and sound editing. The availability of new technologies, however, does not always instigate more advanced or complex approaches to sound post-production, as demonstrated by Nessa Johnston's study of the American indie writer/director/actor Joe Swanberg in Chapter 20. Operating within micro-budgets with minimal crew and taking advantage of cheap digital technology which allows a simplified workflow of shooting and editing, Swanberg is one of the most prominent exponents of 'mumblecore' cinema—a movement renowned for its 'bad' sound. His remarkably extensive

opus, which includes titles such as *Art History* (2011), *Silver Bullets* (2011), *The Zone* (2011) and *Drinking Buddies* (2013), is typical of production practices that take place beyond the fully professionalized industry sphere which, as Johnston argues, belong to the tradition of 'lo-fi' indie-sound aesthetics.

The questions of aesthetics explored in Chapter 21 by Annette Davison and Nick Reyland are not so much a matter of technology and economy but are rather concerned with the fundamental relationships between image and sound and their effect on shaping an audience's emotional responses. Using the example of Cristobal Tapia de Veer's music for the Channel 4 serial *Utopia*, Davison and Reyland argue that scoring strategies more usually associated with art house cinema have recently also infiltrated some high-quality television programmes. They theorize the term 'anempathetic empathy' in order to capture the show's unconventional relationship between narrative and de Veer's music which, empathetic and anempathetic by turns, challenges the audience's expectations and assumptions about the show's protagonists and their motives.

As Davison and Reyland's insightful analysis of *Utopia* also establishes, part of the film aesthetics that these high-end television dramas embrace includes the practice of combining some aspects of composition with sound design for narrative and affective purposes. This is just one of the topics addressed by the celebrated Swedish sound designer Carl Edström in Chapter 22, in an interview discussion recorded by Annette Davison and Martin Parker during his visit to the University of Edinburgh in February 2013. The main creative force behind the sound design of one of the big Nordic Noir hits, *The Bridge* (2010–), Edström in this interview discusses his working methods, the collaborative nature of the creative process and his work with the series' composer Johan Söderqvist.

Part VI investigates the sounds of machines and non-humans. In Chapter 23 Philip Brophy considers the use of MIDI music in Japanese animé, in Chapter 24 William Gibbons explores the production of sound design and music created on computers for video games, and in Chapter 25 Cormac Deane is concerned with issues of redundancy and language when the screen is a focal point in the film or television text. What all three chapters argue is the centrality of the machine for the aesthetic design of both soundtrack and narrative: Brophy through the characterization of the android; Gibbons with the looping mechanism of the computer to create both music and sound design for game sound; and Deane through the use of Automated Dialogue Replacement (ADR) and the looping of lines to tease out issues of repetition and redundancy.

Brophy's chapter uses *Time of Eve* (Yasuhiro Yoshiura, 2010) as a case study to ask questions about what is real, fake or possesses a soul in Japanese culture. Exploring the use of 'real' piano playing, MIDI performances, muzak aesthetics and the centrality of the android, Brophy argues in favour of the android, animé and MIDI, and makes connections between the machine and music that raises interesting ideas for music and sound scholarship as well as more broadly applicable philosophical questions.

Gibbons considers Hirokazu Tanaka's sound design and music score for the video game *Metroid* (1986), drawing connections between the earlier science fiction

film *Forbidden Planet* (Fred M. Wilcox, 1956) and the machine environment of the game utilized to create the score and sound design. Gibbons' chapter successfully delineates the liminal space between sound effects and music, incorporating both processed and unprocessed sound, most of this composed sound coming from the computer that the game can be played on. What Gibbons' chapter does is highlight a different industrial practice in gaming that uses the computer as a point of origin not only for the production of the sound and music but also to reflect the sound of the machine itself in an aesthetic choice that allows the gamer to be thoroughly present in the machinic world.

Deane's chapter charts a more diverse terrain, centring instead on issues of redundancy on screen with a specific focus on the technoscientific. Discussing ADR, infant speech, the technoscientific and animal sounds, drawing from a broad range of examples, Deane makes connections between the redundant repeated image of data on the computer screen and an over-explication of what that data means through the vocalizations of characters within that world.

Concluding this section, John Hough's interview in Chapter 26 with Johnnie Burn, the sound designer on *Under the Skin* (Jonathan Glazer, 2013), also considers issues pertaining to the non-human, highlighting the innovative use of music and sound design in the formation of an alien/non-human character. Burn describes his working methodology with Glazer, his collaboration with the film's composer Mica Levi and discusses how he created both urban sounds through illicit recordings on Glasgow streets and the alien sounds of the *Female* (Scarlett Johansson) as key design elements of the soundscape.

Finally, Part VII of the anthology posits the musical approach to film as being one of the forces behind the integration of music and other soundtrack elements inspired by various types of musical practices from different eras, including traditional classical forms such as overture, electroacoustic music and popular music. As Andy Birtwistle argues in Chapter 27, this approach is not an invention of recent decades but was producing examples of intertwined sound design and music even in the early ages of sound cinema. Focusing on British documentary cinema, particularly the work of Basil Wright (*Song of Ceylon*, 1934) and Geoffrey Jones (*Snow*, 1963), Birtwistle explores ways in which these filmmakers and the composers they collaborated with—Walter Leigh and Daphne Oram respectively—approached recorded sound in a manner that prefigured and paralleled developments in avant-garde music after World War II. His term 'cinesonic transmigration' encapsulates the ethos of this approach in which sound effects, diegetic sounds and speech 'occupy some of the creative territory that has often been considered the exclusive preserve of music' while on the other hand electroacoustic compositional techniques are employed to produce musical forms that gravitate towards the territory of sound effects.

In his case studies of Tom Ford's *A Single Man* (2009) and Steve McQueen's *Shame* (2011) in Chapter 28, Adam Melvin argues that the logic of musical organization does not apply only to the film soundtrack but can also be considered in broader formal terms. He proposes a concept of the cinematic overture that extends beyond its conventional functions of establishing main musical

themes and acting as a 'musical cushion' between the audience and the diegesis. Through a close analysis of the opening sequences of *A Single Man* and *Shame* Melvin shows how the integration of visual, musical and sonic material—both diegetic and non-diegetic—results in an audiovisual dynamic that adopts the sense of performative grandeur associated with traditional incarnations of the term.

Although the type of traditional musical score that Melvin addresses in his analysis is usually credited to a composer only, in the context of film practice the format in which the score appears on the soundtrack is often the result of close collaboration between a composer and an orchestrator as well as other members of the film's post-production team. Ian Sapiro's searching interview with film-score orchestrator Matt Dunkley in Chapter 29 illuminates key aspects of the orchestrator's role in the production of the soundtrack involving composer, director, music editor and recording/mix engineer. Talking about his collaborations with Clint Mansell on Darren Aronofsky's films *Black Swan* (2010) and *Noah* (2014) and with Craig Armstrong on Richard Curtis' *Love Actually* (2003) and Baz Luhrmann's *Moulin Rouge!* (2001) and *The Great Gatsby* (2013), Dunkley also provides insights into the impact of technology on the processes of orchestration and lesser known aspects of the orchestrator's job involving working with popular and other pre-existing music.

The idea of musicality that affects different aspects of film soundtrack addressed in Birtwistle's and Melvin's chapters also resonates with Danijela Kulezic-Wilson's exploration of the musical use of speech in contemporary cinematic landscape in Chapter 30. Drawing on the examples of Drake Doremus' *Breathe In* (2013), Harmony Korine's *Spring Breakers* (2012) and Shane Carruth's *Upstream Color* (2013), Kulezic-Wilson identifies the main strategies involved in the musicalization of speech, showing how the breakdown of classical soundtrack hierarchy stems from a more comprehensive sense of musicality affecting different aspects of film form. She contends that undermining the narrative sovereignty of the spoken word and endorsing the interchangeability of speech and music promote modes of perception which can change our expectations of narrative film and emphasize its musical and sensuous qualities.

With a broad scope of topics united around the idea of the integrated soundtrack this anthology reflects the concerns of interdisciplinary studies examining various facets of screen media, and points to areas in need of closer scholarly attention. We are delighted to be given this opportunity to offer such a range of scholarship and industry reflection on sound design and music and we look forward to seeing new developments in the study of the integrated soundtrack.

NOTE

1. Weis and Belton's anthology includes a number of articles originally published in the special edition of *Yale French Studies* on 'Cinema Sound'.

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