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**Feeling and Filmmaking: The Design and Affect of Film Sound**

**ABSTRACT**

Discussion of cinematic affect most typically attends to response, the impact of the film as we experience it. In this vein, various writers have drawn attention to the physicality of hearing (Sobchack 2005; Cubitt 1998), while others have illuminated the ways in which sound communicates sensory information about the film world (Altman 1992; Chion 1994). However, attention to practice offers further opportunities to think about affect, that decisions made by sound practitioners take into account such considerations; sound practitioners frequently speak about their work in terms of feel, texture and experience. Moreover, the processes of creating film sound requires physical activity and involvement, play and experimentation, which might be literally physical, or have a kind of tactile analogy (to weaving, sculpting and so on). In this sense, affect is in the labour of making the film, as well as in our watching of it. Bringing together theory and practice therefore offers an opportunity to more fully develop an account of the particular contributions of sound to cinematic affect, and perhaps illuminate the significance of practitioners work to the sensory appeal of film more generally – highlighting the creative effort of those filmmakers who traditionally receive less recognition for their achievements. Drawing on published and unpublished interviews with film sound personnel, this article will seek to show how a connection between theory and practice enables a deeper comprehension of filmic affect, traced through the embodied and empathetic qualities of sound work.

**KEYWORDS**

sound design

affect

embodiment

materiality

sensory cinema

sound practice

Discussion of cinematic affect most typically attends to response, the impact of the film as we experience it. Cinema is understood as sensory inasmuch as it appeals to the senses of the

audience; the world depicted audiovisually engages touch and smell as much as sight and hearing. Sound makes a vital contribution to the evocation of other senses, for example: the sound of wind rustling leaves invites the feel of air on our skin, or the sizzle of food cooking conjures taste. The contribution of sound to the sensory appeal of cinema, to the construction of a fictional world, requires a range of very detailed decisions about what sounds should be heard and how they should complement and/or extend the image, what affective qualities and character they can communicate and develop. Indeed, the study of cinema's sensory appeal is conceived as a corrective to the occularcentrism of much film theory, therefore providing the ideal opportunity to consider the significance of sound to and beyond the image. Scholars have described the ways in which sound communicates sensory information about the film world, focusing on its material contribution and impact on the body, and the role technology plays in expanding its affects.

To account for the detailed decision-making of sound practice, and therefore attend to the creative achievement in putting together a material onscreen world, this article will connect theory and practice in order to explore how the process of creating the soundtrack itself can be seen as a sensory process. Coming at affect from a production perspective enables a deeper comprehension of filmic affect, traced through the embodied and empathetic approaches of sound work. Drawing on published and unpublished interviews with film sound personnel, I want to draw attention to the links between experience and practice, in order to recognise the density of film's audiovisual design and ultimately the collaborative nature of filmmaking.

### **AURAL MATERIALITY**

Sound contributes significantly to the materiality of the image, despite its intangibility, fleshing out the movement of objects and bodies through increasingly fine detail. Sound marks out and enlarges space on-screen and beyond, playing an important part in describing the feel of space and movement. No two spaces sound the same, their aural atmosphere determined by size, the nature of their surfaces (reflective, absorbent), how cluttered or empty they are and so on. Rick Altman's term 'Spatial signature' (1992: 24) joins together sound and perception in order to deal with the material contribution of sound in defining a space from a particular position in it, especially in describing the multi-dimensionality that sound gives. The quality, or timbre, of a sound cues us into the consistency of a space and the circumstances of that sound, a 'record of a particular hearing, a specific version of the story of a sound event' (Altman, 1992: 34). Altman's situating of sound as a material experience,

that engages very precise details about how and where we hear, underlines not only the multiplicity of choices needed in creating even the smallest sound effects (as he goes on to discuss: from where should the microphone be and should it stay in the same position to issues of reverberation and intelligibility) but also the dramatic impact of sound characteristics.

Michel Chion has contributed two terms that have great significance for the consideration of sound as providing feel. Chion's discussion of 'rendering', the process by which recorded sound communicates an impression of that sound rather than its strict reality: 'The film spectator recognises sounds to be truthful, effective, and fitting not so much if they reproduce what would be heard in the same situation in reality, but if they render (convey, express) the feelings associated with the situation' (Chion [1990] 1994: 109). This idea is linked to his description of 'materialising sound indices', the details of sound that 'give us information about the substance causing the sound—wood, metal, paper, cloth—as well as the way the sound is produced— by friction, impact, uneven oscillations, periodic movement back and forth, and so on' (Chion [1990] 1994: 114). As Chion and Altman have illuminated, sound is both functional – a result of action happening in a space from a certain position – and expressive in relation to the impression of space, and the feelings that might result from being in it. The character of a sound therefore contributes to our sense of the fictional world, its affective qualities communicating dramatic tone, atmosphere and mood.

The issue of perception that Altman raises also becomes a consideration of the physicality of hearing. Hearing is physical - as Vivian Sobchack puts it 'I hear with my whole body' (Sobchack 2005: 10) – both outside, as sound waves vibrate parts of the ear as well as other bones in our shoulders down to our feet, and inside: 'Sound can affect our body temperature, blood circulation, pulse rate, breathing, and sweating' (Sonnenschein 2001: 71). Sean Cubitt has observed the receptive qualities of feet, collarbone and chest in responding to and perceiving sound, as well as the extent to which the body itself produces and conducts noise: 'pounding of the pulse, whooshing of the bloodstream, the high whine of the central nervous system. All hearing is made up of the interference between these bodily sounds and those that enter it from without, traversing it with vibrations and electro-chemical flows' (Cubitt 1998: 95). The physicality of perceiving and responding to sound has clear links to the understanding of cinema as appealing to a sensory experience: 'We see and comprehend and feel films with our entire bodily being, informed by the full history and carnal knowledge of our acculturated sensorium'. (Sobchack 2004: 63). The ability to feel film sound through our bodies has been expanded through sound technologies – such as Dolby digital – which

work to create an increasingly dense relationship between the body and sound. In addition to the finer details of sound enabled by higher frequencies captured by multi-channel sound, the multiple audio perspectives this enables create physical impact in the greater dimensionality of sound as it moves around, past and behind the viewing body, sound affectively filling the space off-screen. Such technologies intensify the extent to which feeling and listening are entangled. We might consider how uncomfortable it can be when sound is too loud, amplitude and pitch creating a physical impact, almost the sensation of being hit.

Through such perspectives, there are a variety of ways we can understand sound as a crucial element of cinema's sensory address. Sound is functional, working to flesh out the material stakes of on-screen impacts or to fill in the dynamics and properties of movement or impact we don't quite see (for example, the sound of bullets whizzing through the air). Sound is transformative, working to create a three-dimensional space which continues and develops the world off-screen, creating depth, spatial relations and describing surfaces. Sound describes the fictional world in material terms as it shapes information about the forces, weight, impressions and impact, the qualities of movement through space. Finally, sound is a physical and tactile phenomenon, it impacts the bodies of the audience. In all these ways, which are of course interrelated, sound appeals to an audience's sensory perceptions, creating an atmosphere that we respond to. This close integration of film and viewer builds on the notion of phenomenologically-informed intersubjectivity of film and audience.

The enveloping function of modern sound processes is key to its affect, and scholars writing on the sensory properties of cinema have noted sound as a key agent in a blurring of the boundaries between audience and film. In her study of Darren Aronofsky, Tarja Laine argues for the directness of the impact of sound on the audience:

The sound in *Black Swan* is exceptionally textural, not only when it expresses the growing urgency of Nina's mental dissolution, but also in its affective quality, which has a particularly powerful effect on the spectator. With its sudden, dissonant, steely, creepy, stark, piercing, cutting, rattling, fluttering, hissing, groaning, clanging, tickling, jingling, howling, booming, gasping, scraping, soaring, breaking aural violence and especially with its sinister laughing sounds, the film directly scratches, even wounds the spectator's skin. (Laine 2015: 140)

The kind of claim Laine makes here, concerning the vivid tactility of sound's address to the audience, draws on the work of Maurice Merleau-Ponty, for whom physical experience and

perception is inextricably linked: ‘My body is the fabric into which all objects are woven, and it is, at least in relation to the perceived world, the general instrument of my “comprehension”’ (Merleau-Ponty [1945] 2003: 273). If sound is a highly corporeal experience, informing the fundamental coordinates of our ‘being-in-the-world’ as Merleau-Ponty describes it, connection interior and exterior, it follows that sound would be a key element in cinema’s sensory impacts and appeal:

Cinema invites me, or forces me, to stay within the orbit of the senses. I am confronted and assaulted by a flux of sensations that I can neither attach to physical presences nor translate into systematised abstractions. I am violently, viscerally affected by *this* image and *this* sound, without being able to have any recourse to any frame of reference, any form of transcendental reflection, or any symbolic order. (Shaviro 1993: 32)

Steven Shaviro’s emphasis on the palpable impression of sound, something that keys into perceptions of film not contained by signification or representation, speaks to its material communication of space and action, as noted by Altman and Chion. For Laura Marks, the hapticity of certain sounds work to further blur the boundaries between self and world, of inside and out (2000). Although engagements with cinematic affect can be roughly grouped into two principle frameworks, drawing from either existential phenomenology as developed by Merleau-Ponty or the work of Gilles Deleuze, for both camps this translates into thoughts of film meaning being forged through the shared encounter of film and audience: ‘Human bodily existence, material flesh, is the first *premise* of sense and signification – our human body should no longer be seen as a passive machine registering and decoding reality, but as actively engaged in processes of world-making (world-thinking).’ (Frampton 2006: 42) A sensory approach thus imagines an active audience, involved in a reciprocal experience of meaning-making which is processed through all the senses. On the one hand, such privileging of *experience* as meaning-making activates the importance of impressions of energy, force and effort. On the other, this can result in the removal of the creator, as the audience is the central agent. By bringing the filmmaker back in we might think about the involvement of another body, whose work and effort is directed in creating the kind of material and expressive dimensions so important to engaging the embodied responsiveness argued for by writers like Sobchack, Shaviro, Marks and others.

## **AFFECT IN PRACTICE**

In an interview I conducted with the sound designer/supervising sound editor Richard King, he described his approach to sound in the following terms: ‘I think with me, it always begins with being there with the character, wanting to be there either in their place or with them. And then, how do I make myself feel that more, how do I make myself feel that I’m in a place’ (King 2015). For King, sound design is an empathetic experience, one that forges connections between practitioner, film world and beyond. In placing an emphasis on feeling himself into a space, into a character, King frames his work precisely in the way we might situate the affective contribution of sound to the audience’s experience, his own desire to feel with the character mapping onto an intersubjective exchange between film and watching/listening body. Walter Murch echoes this in his account of the dramatic and felt intentions of such decision-making: ‘You choose sounds that help people to feel the story of what you’re doing’ (Jarrett, 2000: 7). The designer thus situates themselves with the character, feeling with or in their place, forging a connection to the audience’s experience through their own work, as their detailed decision-making is informed by questions of feeling. King’s comment shifted my own perspective on the kind of expressive engagements with feel in sound work I had previously noted from interview material, emphasizing the work of the designer as occupied with empathy and embodiment.

Using King’s expression of the empathetic position of his work as a jumping off point then, this article will continue with an exploration of the creation of sound in terms of what we might describe as an affective labour. To begin with, there are various bodies involved in the creation of sound. Just as hearing is itself an intensely corporeal experience, the production of sound involves a material process; bodies working and moving to produce and refine sound. Some sound personnel might have a more obviously embodied process, such as foley artists who ‘walk’ a character, literally putting themselves through the trajectories and impacts of the body we see onscreen. On this basis there are clearly certain roles that have a more pronounced relationship to considerations of physical affect and effort than others, the foley artist being engaged in the most immediately embodied and affective positions in sound production. Yet, there are further ways in which we might consider the process of sound designers, editors and mixers as material and embodied, taking into account their own responses to the sensory properties of sound and the importance of these to our engagement with film. More specifically, attention to wider practice offers further opportunities to think about how detailed decisions made by sound practitioners take into account considerations of the sensory appeal of cinema, and furthermore, that the labour of the practitioner themselves could be thought of as contributing to that appeal.

## VOCABULARY

On the basic level of vocabulary, sound practitioners frequently speak about their work in material terms, describing decisions or design in terms of feel, texture and experience. Such references to feel are often broader descriptions of atmosphere or mood, as in Cecelia Hall's account of working on *Witness* (Peter Weir 1982): 'It was a matter of finding tracks with just the right feel and the right character for that place, that time of day, the right kind of distant animal, so you'd really get the sense that it was five-thirty in the afternoon' (LoBrutto 1994: 197). Hall's description of a desire to get the 'feel' right presents an effort to situate the audience immediately in the fictional world, something reflected in King's emphasis on the crucial importance of communicating what a space feels like: 'it's more of a gut reaction you're going for, not so much an intellectual thoughtful reaction. What does the space feel like in an instant, how can you convey it instantly' (2015). Others might present this as specific details through which the components of a space are felt: '... the small sounds that are buried in that atmosphere create a different feeling. It's not just one thing' (Davies 2012: 92).

Certain terms used by sound practitioners conjure a tactility in the word itself, such as to 'fluff' or make a mistake, the shaping and cleaning of sound referred to as 'sweetening', or the ways in which sound can be hardened or softened as needed. Words used for sounds need to have something of the sound character in them, as indicated by Richard Anderson's account of creating the fight sequence in *Streets of Fire* (Walter Hill, 1984), during which he refers to effects as 'splatty', 'cracky' and 'thuddy' (LoBrutto 1994: 165), or in Mark Mangini's list of sound terminology 'boink, boing, twang, twung, zip, rico, whibble, wobble, wubba' (LoBrutto 1994: 278). The relation between sound and image is frequently referred to in relation to its 'stickiness', the need for sound to be 'glued' to the image in order to maintain the illusion of continuity; Richard King discussed the difficulty of ADR in such terms, 'because it's really hard to make it stick to the screen' (2015). This tactility continues in certain descriptions of sound work. In answer to a question concerning the transformation of sound during recording, Frank Serafine likens it to sculpture: 'I mold and sculpt it. It's sound sculpting' (LoBrutto 1994: 224). Serafine's analogy to such a physical, textural practice – like weaving, another art form that forms a key analogy to sound work especially in crafting the mix - underlines that the work is not limited to the tactile dimensions of language, but that sound practices involve a material dimension. Vocabulary is an important indicator of how sound personnel see their work, conceptualizing it not as merely functional

(a case of matching the image) but as emphatically expressive – communicating the feel of sound, the ways in which it can be shaped in wholly tangible terms.

### SHAPING AND LAYERING

The tangibility of a sound as an immaterial form can be further considered in the layered processes of sound production. The sculpting that Serafine describes is wrought through the shaping of real recorded sounds in a layering process. Alan Splet describes his process of making sandworms for *Dune* (David Lynch, 1984):

I [ . . . ] combined several things. Some of it is made from bomb blasts that I took from the library and slowed down about five or six times. Then, Ann went out with a Frap and bonded it to a piece of plexiglass in the sand at a playground and did all sorts of things to it, rubbing sand over the top of it, rubbing sand over the top of it, scraping it, dragging it. I used almost everything she got. I processed that through the phlanger in places and harmonizer in others. (Gentry, 1984: 68)

Not only does the process Splet describes underline the very fine detail involved in generating such a sound effect, but this particular example gives a sense of how material the process can be. It is emphatically a process of building, shaping, nuancing. The varied qualities of sound are explored in full and how they combine is therefore crucial to constructing texture, movement, impact and force; all the sound characteristics to make the audience respond to the sandworm as a corporeal presence. In a less specific example, the mix of the soundtrack is concerned with balancing elements. The mix is often thought about in terms of intelligibility (the dialogue as higher in the mix so words can be heard), it might also be thought of having weight and pressure. Speaking of his work on *Apocalypse Now* (Francis Ford Coppola 1979), Murch explains: ‘My goal throughout the film was to combine density and clarity. If something is clear but isn’t dense enough, if it doesn’t have any heft to it, I try to find something to make it have heft’ (Murch quoted in LoBrutto 1994: 96). While we might not think of this layering as especially effortful – it might amount to pushing buttons on a sound desk – the precision of the process and, perhaps more importantly, the terms in which the practitioners themselves conceptualise it, alludes to the creativity and materiality involved. Layering comprises specific decisions made about force, impact, weight, tone, rhythm and so on, even in an entirely made-up sound.

## **SOUND AS EXPERIENCE**

Moving beyond the ways in which sound personnel describe their practice, the activities associated with producing sound – especially in terms of recording sounds to be incorporated into effects – most directly incorporates a physical or experiential dimension to sound work. A common thread that connects sound designers – especially those associated with the Bay Area filmmakers of the 1970s, such as Walter Murch, Alan Splet, Ben Burtt – is their commitment to collecting sounds outside of the studio. The idea of going and making sound in a place, in order to capture not just the sound but the specificity of sound in a place, is something that Walter Murch highlights in ‘worldizing’ a sound, the ‘acoustic treatment [...] so that it seemed to be something that existed in real space’ (Jarret 2000: 4). What Murch goes on to describe – the process of recording the radio show in *American Graffiti* (George Lucas 1974) so that it sounded the way it would playing in cars and on the street as cars drove past – connects to Altman’s ‘spatial signature’. For Murch, this goes beyond the dramatic achievement of sound to negotiating sound as synesthetic phenomenon:

What I’m really recording is the relationship between that telephone and the space around it. It’s a general predisposition to always think about the air that surrounds something. For me it’s incredibly emotional. The air has a lot to do with it; it’s sort of a perfume of sound – sound without air has no smell. When you have air around it, suddenly it hits you like a smell that you haven’t smelled in fifteen years – memories come back. (LoBrutto 1994: 88)

Murch draws attention to trans-sensory qualities of sound, how it might evoke smell for example, and moreover, how these sensory combinations might transform the qualities of and response to a space. Frank Warner is similarly concerned with the precise interconnections of sound and atmosphere in his comments that for his work on *Taxi Driver* (Martin Scorsese, 1974) it was important for him to retain a sense not just of the place itself, but the specificity of character and mood. Discussing the creation of the ambient sounds in New York City, he says he wanted to ‘Keep it dirty, you’re working in an area of town that is not a happy place. What you would hear from the tenement was not nice – babies crying, radios playing – you just tried not to be pretty or nice with it. There was a lot of water – it was generally pretty wet. I went back to New York to experience a lot of that myself’ (LoBrutto 1994: 34). For Warner, the potentiality of sound extends to a kind of research of the place or environment. He doesn’t need to specifically record the place, but going there himself allows him to

understand it in order to get the right feel, to convey the appropriate dramatic atmosphere for that particular depiction of New York City. The kind of experiential approach described by Warner might be the director's influence, and again this is where the background and perhaps power of certain filmmakers has an importance to shaping the possibilities of sound work. When working on *Close Encounters of the Third Kind* (Steven Spielberg 1977) Warner describes how Steven Spielberg's working methods enabled and indeed encouraged such abstract consideration of feel: 'The big sets were done in Alabama, and [Spielberg] flew me down there. Nobody was allowed to walk on those stages, but he just wanted me to feel the experience' (LoBrutto, 1994: 31-32). In this way, the experience of being there, even in the case of a set, is foregrounded as important to gaining an understanding of the space, and how this might be translated, rendered or communicated through sound.

At this point it is important to note that these kinds of practices are partly the way the role of the sound designer, as opposed to sound editor, evolved. Instead of sound being regarded as a post-production necessity, a selection of key Hollywood directors of the late 1960s/early 70s were willing to spend time on it and to think of it as a creative process. Ben Burt recounts his experience of working with George Lucas: '[he] instructed me, "Here, take this microphone and Nagra, take a year and go out and collect all the interesting sounds you can think of. Bring them back and we'll go through the material and we'll use it for our film"' (LoBrutto 1994: 142). As Benjamin Wright suggests, there is a crucial connection to be made between the more general shift in American filmmaking and the development of sound as a creative endeavour: 'The philosophical origins of sound design can be traced to American Zoetrope [...]. Described by Coppola as more a 'lifestyle' than a film company, the Northern California team of filmmakers that included Carole Ballard, William Huyck, Gloria Katz, George Lucas, John Milius, Matthew Robbins and Walter Murch, fashioned a break from the segmented labour practices of the Hollywood studio system' (Wright 2013: 138-9). The kinds of approaches described by Burt, Splet, Murch and others, were neither standard practices then nor are they now, yet their methods have undoubtedly informed and shaped sound practices in Hollywood, whether sound practitioners refer to themselves as sound designers or editors. In a comparison of two sound practitioners, Wright draws the conclusion that despite the difference of the role's conceptualization (as indicated by the adoption of each job title), the creativity underpinning the work remains the same: 'While sound designers have been accorded a certain artistic status within the film community, the sound effects editor has not completely overcome the technician label, even though their work is structured by an appeal to the creative potential of sound' (2013: 154).

Film sound is not bound by its realities but by an emotional quality, its dramatic function. The process may be focused on a more direct idea of construction thus placing emphasis on character and quality over strict reality. In response to whether recording the actual sound of an earthquake is preferable, Alan Splet comments that he would rather build it, in order to emphasise the sense of the sound: ‘You have to *feel* a sound for it to be effective sometimes’ (Gentry 1984: 68). Others frame the rendering of sound as coming from a more naturalistic approach. When I gave Richard King the example from Alan Splet quoted above, he replied:

So my thing is always, let’s find a way to record an earthquake or go to see a storm, let’s get the real thing first because maybe it’s incredible. At the very least, the sound, or the experience of recording it, inspires you to think what would be a good add-on. So we always look for ways to get as close to the original thing as we can. It’s also more fun – you have an outing, and you get to experience it maybe with people who know a lot about this. When we were filming a rocket we got to speak to a rocket guy. It’s interesting and I think it informs your work. (King 2015).

For King, the reality of sound is crucially an informing influence, and one that he frames as experiential (something he emphasised throughout our discussion) – getting to experience the sound yourself shapes the way you might use it. The important distinction here is that the experience is that of the practitioner as well as that of the audience.

## **PLAY AND EXPERIMENTATION**

The process of going out and recording sound leads to a further dimension of sound as experiential, as practitioners recall the necessity of play and experimentation. Ben Burtt describes his practice as fundamentally about making mistakes: ‘Most of my experiences in creating sound has been in error when you go outside with a small tape recorder and gather sounds in the real world’ (2013). The activity of recording sound is a methodology which might most immediately give a sense of encounter or engagement with materiality, and the possibilities of experimentation that come with that. Frank Serafine describes making sounds for the submarines in *The Hunt for Red October* (John McTiernan 1990) as a process of play:

Sound designer John Fasal and I would take underwater air tools and go to supervising sound editor Cecelia Hall’s house to record sounds in her pool. I’d swim around for the

torpedo, and then I'd jump into the pool and record the water from the outside and then underwater on two separate tracks. So you've got all the airy and splashing sounds outside the pool and all the underwater sounds recorded with the oil can mikes. I created propellers by doing a cannonball dive into the water – *scroooooom, scroooooom, scroooooom, scroooooom, scroooooom*. I did it for the propeller of every submarine so they sounded a little different. (LoBrutto 1994: 224)

Serafine's experience emphasises the degree to which creating sound effects can be a physical and material process. This experimentation, whereby the designers are not taking the actual thing (not submarines), but rather creatively imagining what they should sound like to the audience, becomes highly physical; the process is not dissimilar to foley in the use of the body. For others, the almost accidental nature of how a sound is created and chosen is noted. Gary Rydstrom recalls that the sound of the T-1000 in *Terminator 2: Judgement Day* (James Cameron, 1991) went through a series of directions, eventually borrowing something from one of his own everyday sounds: 'I went back to recording liquid effects, but I tried to record them in a unique way. That's when we played with dog food sliding out of cans, which is a sound I always liked when feeding my dog' (LoBrutto 1994: 235). The transference of sound qualities from dog food to shifting metallic form is developed through play, trying out the ways the sound could be made until the right direction is discovered.

### **Embodiment and empathy**

Through these examples of sound work, the idea of a someone simply sitting in front of a mixing desk becomes more complex: 'Someone sitting there all day watching me work would probably think this is the most boring thing I've watched in my life, but for me it's like an exploration, it's a real exploration process. You get to make a world, to imagine it' (King, 2015). What King describes here might not immediately strike us as an embodied process, but it is clear from his comments, as well as those of others, that the exploration and interest in building a world through sound involves engaging with feel and experience, perhaps an imaginative embodiment of how *those* characters move through *that* fictional world. Sound designer Paul Davies likewise foregrounds the importance of his own response to his work: 'I work in a much more instinctive, intuitive way [...] It's the way I respond emotionally to what I see on screen' (Davies 2012: 94). Recognising that there is a person involved in the translation or 'rendering' of sound for film, who brings with them a set of experiences and responses, should bring us closer to appreciating their artistry.

The investment in various degrees in the making of the fictional world, expressed by all of the practitioners quoted in this article, is extremely important, and moreover, that in their varied approaches it is the exploration of that world matters. All the different elements of the process I've described – experiencing, recording, building, shaping, experimenting, playing – highlight the ways in which we might consider affect to be in the labour of making the film, as well as in our watching of it. As Isabelle Delmotte puts it, the various roles in sound work 'involve different ways to move in and around sound. The body's centre of gravity shifts according to the task performed, or limitations encountered: for example, from a standing to a kneeling position for recording, specific kinetic movements for Foley, and sitting positions for post-production' (2014). Though some positions might be more directly physical, they all involve material considerations of effort, energy and expression. The perspectives of sound practitioners also demonstrate that the process is frequently about building sound from an empathetic response:

And with *Interstellar* [Nolan 2014] it was really fun with the space stuff, trying to imagine what it would be like on a ship and what it would feel like, and because we couldn't do all the stuff that the ship is doing, the shaking and all that stuff, what's the sound analogue for that, what sound would make us feel like that? (King 2015)

The imaginative embodiment described by King here in response to the central question of 'what sound would make us feel like that', prompts the idea that in communicating an experience – not even just a translation – such an immersion brings a desire to not just describe the film world, to be functional and match visuals, but also to describe force, agency, atmosphere and so on. In response to a similar kind of question, Wright links the ideological function of sound work to the kind of embodied and even performative strategies I've been describing: 'As an ideology, sound editors who have not adopted the 'sound designer' designation approach each sound event with the same sense of creative engagement. Embedded in the question 'what do we hear?' is the ideological function of modern sound editing: sound as performance.' (Wright 2013: 154).

The study of performance in film desires to appreciate the work and craft of the body, the achievement of an actor onscreen. Why not think about the achievement of other filmmaking bodies in those terms, of the off-screen bodies and their gestures, and how these direct our attention and contribute to the way the film world feels? Foley is a practice that relies on bodily control, effort and energy to create sounds that match bodies and their

interaction with surfaces on-screen. For these reasons, foley can be perhaps more straightforwardly considered a performative process, involving gesture and exertion, and requiring an ability to respond to and communicate – or translate – to what is happening onscreen. Elsewhere I have argued for the contribution of the foley artist to be seen as an invisible performance (Donaldson 2014), the trace of their physical encounters and interactions with space and object there in the soundtrack as they recreate a range of sounds made by the body, including footsteps, breath, face punches, falls, and the sound clothing makes as actors walk or run. Yet, if we think of a response to film as invested in its materiality it makes sense to think of sound practice more generally in these terms. Sound work can be gestural, the quality or shaping of sound pointing the audience in the direction of narrative or character development, or when disrupting the flow, the intrusion of a sharp sound can function like an abrupt movement. In discussion of his work on *Ratcatcher* (Ramsey 1999) Paul Davies describes the mix in a way that suggests a sense of how the mix can be used gesturally: ‘I think the whole aesthetic of pushing forward the Foley, which with these characters is a big thing – you feel that the Foley is up there and draws you closer to the characters’ (Davies 2012: 86). Davies uses a gestural verb ‘push’ to describe how the prominence of foley in the mix molds audience attention, and ultimately invites a close relationship to the characters. Such a consideration of the gestural qualities of the mix can be developed in relation to Philippa Lovatt’s writing on the collaborations of Apichatpong Weerasethakul with two key sonic artists, Akritchalerm Kalayanamitr and Koichi Shimizu, which underlines how the prominence of sound effects in the mix can establish ‘bodily connection and sensory exchange [...] infer[ing] a sense of mutuality (symbolically, a dialogic and discursive space) that draws on the epistemology of embodied memory, a shared sense of how it feels to remember that is grounded in the senses’ (Lovatt 2013: 74). Lovatt’s interweaving of the films and the filmmakers thus illuminates how the materiality of sound – such as rain fall or the sound of wind through long grass – and its presence in the mix can be used to entangle the audience body with the body of the film.

Some practitioners describe the process of mixing or designing sound as an explicitly physicalised experience: ‘In every mix, for me at least, there is a moment when all the component parts have been assembled, the elements have been laid together, the pre-mixes are locked to the final cut and, as you are adjusting their relative levels, it happens: the hairs on your arms and on the back of your neck stand-up and the chest tightens. It’s visceral. It’s discomforting. It’s palpable.’ (Hillman 2014: 132). Hillman goes on to position his approach through a performative framing, involving recourse to a Stanislavski-inspired interiority: ‘to

understand what it is about the scene and *specifically the accompanying sound placed within the scene* that has triggered those internal feelings, and what is required to articulate, evoke and sustain such an emotion through the scene for the listening audience' (Hillman, 2014: 132). In this article, I have worked against creating a hierarchy of 'effort' in order to understand that there are different ways of seeing practice as embodied and taking account of the material qualities of sound. That the qualities of a fictional world are built through the interventions of diverse personnel and that they are invested in thinking of it in various ways as wrought through feeling, exploration, experience and embodiment suggests that their achievement be considered as creative and expressive.

## CONCLUSION

In an assessment of the field of Sound Studies in 2008, Mark Kerins highlights the understanding of production practices as a major area in which writing on film sound needs further development:

More work that combines primary research (including interviews with film sound professionals and study of archival records where available) with a basic understanding of common production practices would provide useful context about the ways film soundtracks are made, the possible limitations (both technical and aesthetic) filmmakers confront at various times, and why moviemakers arrive at particular decisions. (Kerins 2008:117)

The process of interrogating sound practice – through the kind of interview material I have used here – foregrounds the fine detail of decision-making, and the importance of feel and experience to those decisions. Moreover, it illuminates connections between theory and practice, as both address the material contribution of sound, whether through the 'spatial signature' or process of 'worldizing'. Many of the practitioners mentioned are based in the US, others, such as Neil Hillman and Paul Davies, are from the UK, while the connections to writing by scholars whose focus is in Asia (Lovatt) and Australasia (Delmotte) shows that the recourse to discussion of 'feel' or concerns of the sensory go beyond the first wave of Bay Area sound designers of the 1970s, to contemporary American filmmaking contexts and beyond. This article has endeavored to understand that sound practitioners can be considered not only to consider affect in their design (part of sound occupying a more 'metaphorical' or expressive function) and that 'feel' is an important part of their vocabulary; but also that the

importance of experiencing sound hasn't diminished in the digital era; and furthermore, that processes of sound design require activity and involvement, play and experimentation – which might be literally physical, or have a kind of tactile analogy (to weaving, sculpting and so on). Through this, we can understand the affect as being in the labour of making the film, as well as in our watching of it. My approach is therefore contributing to the work of others who have made the claim for sound work as creative: sound designers themselves, such as Walter Murch and Randy Thom, and other scholars, such as Lovatt, Delmotte, and Wright. Wright in particular comes at this from a historical and industrial perspective, outside the scope of this article, noting that for the sound personnel linked to the new Hollywood directors who valued sound as part of a collaborative and integrated process: 'sound was being used to enhance the dramatic impact of a scene, to enrich our understanding of a character or to add to the general 'feel' of a film' (2013: 142).

Bringing together theory and practice therefore offers an opportunity to more fully develop an account of the particular contributions of sound to cinematic affect, and perhaps illuminate the significance of practitioners' work to the sensory appeal of film more generally, thus highlighting the creative effort of those filmmakers who traditionally receive less recognition for their achievements. Attention to how artistic labour is shaped through consideration of the sensory appeal of cinema has not only potential to further illuminate theoretical understandings of our sensory responses to film, but also to expand understandings of film labour as an affective process in itself, not only as a contribution to affect. In doing so, sound work can be understood as a creative, even performative, practice.

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