
The Ecology of Listening while Looking in the Cinema: Reflective audioviewing in Gus Van Sant's *Elephant*

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This article argues that the state of spatial awareness engendered by the art of soundscape composition can be productively extended to the act of listening while looking in the cinema. Central to my argument is how Katharine Norman's concept of *reflective listening* in soundscape composition can be adapted to *reflective audioviewing* in the audiovisual context of film. Norman begins the process of intersecting film theory and the discourse of soundscape composition by appealing to famed Soviet filmmaker Sergei Eisenstein's theories of montage to illustrate how soundscape composition enables active listener engagement. I extend her discussion of Eisenstein to demonstrate how this filmmaker's thinking about sound/image synchronisation in the cinema – and R. Murray Schafer's own predilection for Eisensteinian dialectics – can be understood as a means towards the practice of reflective audioviewing. I illustrate my argument with an analysis of how the soundscape compositions of Hildegard Westerkamp have been incorporated into Gus Van Sant's film *Elephant*. Attention to the reflective qualities of Westerkamp's work open up new dimensions in our experience of the audiovisual construction of space in the film. Ultimately I argue that the reflective audioviewing prompted by *Elephant* can be carried into considerations of all films that make use of sound design for spatial representation.

1. INTRODUCTION

Early in Gus Van Sant's film *Elephant* (2003), based loosely on the Columbine High School massacre in Colorado, USA, student Alex (Alex Frost) is seen mapping out the space of the cafeteria in preparation for the shooting spree that he'll soon embark upon with his friend Eric (Eric Deulen). In the final shot of this sequence, he pauses for a moment and glances around the room in distress as the amplitude and reverberation of the noisy lunchtime crowd rise to higher levels on the soundtrack. The shot ends as he winces and raises his hands to his head as though in pain.¹ The next time we see Alex in this space it has been emptied of all life, and the chaos of the midday bustle has been replaced with the sounds of a forest environment underscored by electronic tonalities, his

own footsteps now reverberating through the vacant space. For a moment he can sit in peace, having violently banished the sounds he apparently found so disturbing the previous day. Yet the peace is unnatural, a forced emptying of interior space into its surrounding exterior reflected by the bizarre co-existence of electronics, birds and wind-rustled branches within the boundaries of an institutional enclosure.

The sounds we hear at this moment are a combination of the work of sound designer Leslie Shatz made for the film and Frances White's pre-existing piece *Walk Through Resonant Landscape #2* (1992), which provides the climax to the film's recurring use of soundscape compositions.² Although White's piece is central to the closing moments of *Elephant*, this sole excerpt of her work is but one example of the film's recurring use of soundscape composition that relies more heavily on the pieces *Türen der Wahrnehmung (Doors of Perception)* (1989) and *Beneath the Forest Floor* (1992) by Hildegard Westerkamp. These moments of intersection between soundscape composition, sound design and the image track contain a profundity that is founded upon what I call *reflective audioviewing*, a receptive practice that extends from Katharine Norman's concept of *reflective listening*. Norman's concept of *reflective listening* encapsulates the relationship between acoustic ecology and the practice of soundscape composition: a reflexive approach to composition that entails the use of field recordings manipulated in such a way as to prompt the listener into active engagement with the soundscape being represented. In the audiovisual context of the cinema, the same attention to spatial representation called for in much soundscape composition can be applied to sound and image both.

The practice of film sound design is at least as important a precursor to soundscape composition as

¹This shot runs from 24:25 to 25:14 on the north American DVD.

²This shot begins with Nathan and Carrie running to seek a hiding place at 1:14:31 and finishes with the beginning of the end credits at 1:17:46. The excerpt of White's piece that runs for the duration of this shot begins at approximately 4:40 on her CD *Centre Bridge* (2007).

musique concrète. Film sound practitioners have been interested in auditory spatial representation since before the coming of synchronised sound, and since the 1970s the creation of environmental and spatial sound in narrative film has been one of the most important jobs of any sound design team. Contrary to the discourse of soundscape composition based in electroacoustic music theory, discussions of film sound have paid less attention to the idea of sound design, and indeed the audiovisual totality of a film, as a form of musical composition. Yet early sound theorists such as Sergei Eisenstein used language borrowed from music theory to address issues in sound–image relationships, a fact that David Bordwell reminded us of at the dawn of the new wave of contemporary film sound theory (see Bordwell 1980). And as Danijela Kulezic-Wilson has noted much more recently, advancements in film sound technology have resulted in more filmmakers, like Gus Van Sant, treating a film’s overall sound design as a ‘score’ in which all the elements are as mindfully positioned as the individual instruments in a symphony orchestra (2008). Given that a large part of any film sound design is the auditory representation of space, the time is ripe for considering spatial organisation in the cinema along musical lines, and this is where thinking of sound design through soundscape composition becomes most useful.

What the practice of reflective listening in soundscape composition teaches us is that attention to how the sound of space is treated by a composer or film sound designer can be an essential component of how we engage with a film. In this essay I argue that Norman’s particular concept of ‘reflection’ can be productively adapted for considering reception practices in the cinema. Films that overtly seek to emphasise their structuring hand by playing off the tension between representation and abstraction fall into Norman’s category of reflective art and can engender what I call *reflective audioviewing*. Here I take the premise of Michel Chion’s book *Audio-Vision* – that in the cinema we are always hearing and seeing at the same time – and add the concept of ‘reflection’ after Norman to address the particularities of listening while looking in the cinema. Bringing the reflective listening desired by many soundscape composers into the audiovisual realm of the cinema can help us to put space at the forefront of our experiential engagement and enhance our understanding of film’s expressive power.

Significantly, Norman begins construction on the bridge between the discourses of soundscape composition and film theory through her appeal to the montage theory of famed Soviet filmmaker Sergei Eisenstein. In this essay I will explore Norman’s engagement with Eisenstein and extend the connections she makes to demonstrate how this filmmaker’s thinking about sound/image synchronisation in the cinema can be understood as a means towards the

practice of reflective audioviewing. As a case study I will then apply the extended concept of reflective audioviewing to an analysis of Gus Van Sant’s *Elephant*. This film serves as a rather special example of the potential for thinking about film space through soundscape composition because of its incorporation of pre-existing soundscape compositions into its audiovisual design. Here I will concentrate on Van Sant’s use of Hildegard Westerkamp’s work within the audiovisual ecology of *Elephant*, demonstrating how reflective audioviewing opens up a different way of approaching a film that many have found to be an exercise in surface formality with little substance. Addressing how the audience is prompted to engage with audiovisual space in the film offers a depth of experience unattainable when approaching the film through more traditional avenues of analysing narrative form or character psychology. In the end, *Elephant*’s use of soundscape composition points the way to a valuable lesson for film studies: thinking about film sound in general as a form of soundscape composition can open all films up to new approaches that place space at the forefront of inquiries into how we engage with film form. In turn, the study of film soundtracks can become a part of the extended family of artistic practice that informs acoustic ecology’s goals of increased awareness of real-world sonic environments.

2. REFLECTIVE LISTENING IN SOUNDSCAPE COMPOSITION

I begin with a discussion of reflective listening in soundscape composition. Barry Truax has delineated the key difference between soundscape composition and other forms of electroacoustic music: where most electroacoustic music follows from Pierre Schaeffer’s interest in the acousmatic ideal of abstracting recorded sounds from their context of origin, in the soundscape composition ‘it is precisely the environmental context that is preserved, enhanced, and exploited by the composer’ (2001: 237). Much soundscape composition deliberately plays on the listener’s recognition of the recorded environments in order to call attention to how these environments have been altered by the composer. For Truax, ‘the successful soundscape composition has the effect of changing the listener’s awareness and attitudes toward the soundscape, and thereby changing the listener’s relationship to it. The aim of the composition is therefore social and political, as well as artistic’ (2001: 237). Katharine Norman evocatively refers to such composition as ‘real-world music’, a form that relies on a balance between the naturalism of the recorded environments that make up the compositional building blocks, and their mediation through technologies of electroacoustic recording and transmission. In her words, ‘real-world music leaves a door ajar on the reality in which we are situated’ while seeking a ‘journey

which takes us away from our preconceptions', ultimately offering us a new appreciation of reality as a result (1996: 19). Soundscape composition, therefore, is premised upon a 'dialectic ... between the real and the imaginary, as well as between the referential and the abstract' (Truax 2001: 237). This dialectic is the result of the composer's interventions into the material, and Norman refers to the awareness of compositional mediation as 'reflective listening' (1996: 5).

Norman posits the practice of reflective listening in relation to what she calls 'referential listening' (1996: 5), the latter clearly patterned on Pierre Schaeffer's categories of causal and semantic listening as distinct from the reduced listening mode (Schaeffer 1977) (though she does not acknowledge any explicit connection to the French composer). Her conclusion is that the idea of reflective listening provides a way of understanding how we continually fluctuate between different modes of listening. Norman argues that referential and reflective listening are not independent activities, that they '[work] together as a means of synthesizing our knowledge and our enjoyment of real-world sounds' (1996: 5). The awareness of a recorded sound's source in the world is balanced by an awareness of the mediation to which the soundscape composer has subjected it.

While Norman's use of the terms *referential* and *reflective* recalls Pierre Schaeffer's categories of listening, they also point towards other discourses of listening. David Sonnenschein, for example, uses the term *referential listening* within the cinema as 'being aware of or affected by the context of the sound, linking not only to the source but principally to the emotional and dramatic meaning' (2001: 78). This is a similar form of listening to the combination of reflection and referentiality that Norman describes: the listener is aware of a sound's reference to the world outside the cinema yet also what the sound refers to within the context of the film in which it used, the meaning it takes on by virtue of compositional intent. Again, essential to Sonnenschein's discussion of referential listening is the simultaneous awareness of a sound's representational quality and its mediation by the filmmaker for specific formal and narrative purposes.

In *Listening and Voice* Don Ihde also develops a category of reflective listening that is pertinent here, referring to a kind of ecological awareness of the role of reflection and reverberation in creating the 'voice' of space (1976: 57). For Ihde, the idea of reflection is quite literal as it refers to the spatial dimension of sound that comes to our ears by way of physical reflection: reverberation. In Ihde's version of reflective listening one listens for what Rick Altman calls *spatial signature* (1992: 24), a causal listening that provides information not just about source, but also about the space in which the sound is propagating.

This is something like an acoustician's version of Norman's reflective listening; we might say that, for Norman, the 'voice' of a soundscape composition comes through in the way that representational sound recordings 'reverberate' through the composer's manipulations within the space of the composition.

The term *reflection* can thus refer to the spatial signature of a place; it can be the way a recording reflects the sound that was recorded; it can be the way that representational recordings reflect within the space of a composition; and, just as importantly, reflection can refer to the space of contemplation in which the listener makes sense of the composition she's hearing, the way that a listener 'reflects' upon the material within the unique psychological space of the mind. Norman's discussion of soundscape composition as 'real-world music' encompasses all four of these dimensions of reflection, and it is this four-fold approach to the concept of reflection that can allow for an extension of the practice of reflective listening into the audiovisual context of film. Interestingly, Norman builds her argument for reflective listening by way of frequent reference to cinema as a visual medium. I turn now to a discussion of how Norman uses film theory to develop the concept of reflective listening in soundscape composition. In turn, I will demonstrate how her appeal to the visual aspect of cinema when discussing sound has value for considering the act of listening while looking in the cinema.

3. SOUNDSCAPE COMPOSITION AND VISUAL MONTAGE

Norman's discussion of the simultaneity of different listening modes fostered by soundscape composition draws on a host of film references, particularly the writings of Sergei Eisenstein and André Bazin. In essence, she uses Eisenstein and Bazin as emblematic of two different schools of thought on the ideal purpose of film: the realist school that emphasises the pro-filmic events, and the montage school emphasising the work of the filmmaker in shaping these events. She stresses that the montage approach is about reflexivity, where artists foreground the materials of their medium to generate a tension between any referentiality in the images and how they have been manipulated by the filmmaker. This tension prompts reflection, and she uses many examples of sound artists who exploit the tensions between abstraction and representation, and between document and artistic manipulation, to 'engender a kind of internal "listening montage"' (1996: 11). Ultimately Norman argues that, because of the tensions between different listening modes inherent to soundscape composition, the listener is invited 'to participate subjectively in the creation and transmission of transfigured meanings, to create through the confusion of our individual listening

montage' (1996: 115). Her evocation of Eisenstein is clearest in citing his desire to use montage as a way of getting the spectator to participate actively in the creation of meaning, where, in Eisenstein's words, 'the image is at one and the same time the creation of the author and spectator' (Eisenstein in Norman 1996: 9). Finally, the montage strategy in real-world music 'is impelled by a desire to invoke our internal 'flight' of imagination so that, through an imaginative listening to what is 'immanent in the real', we might discover what is immanent in us' (1996: 26). In other words, the goal of real-world music is to re-discover the world by navigating the line that separates internal experience from the external world just as soundscape composition presents imaginative re-interpretations of real-world material. Unlike the goal of abstraction in much electroacoustic music, soundscape composition makes music by representing the external world so that this world can be discovered within us as well, just as Eisenstein's approach to image montage prompts a reflective viewing practice.

Intriguingly, Norman avoids talking about Eisenstein's famous interest in sound and music. There is some logic in referring to the art of montage in one single-mode art form – silent cinema – to evoke similar processes of montage at work in another single-mode form – soundscape composition. Yet the question remains: how does the idea of 'reflective' experience of either sound or image figure into the context of sound cinema where the audience listens and looks simultaneously?

4. FILM SOUND: EISENSTEIN, SCHAFFER AND AUDIOVISUAL COUNTERPOINT

Eisenstein was at the forefront of theorising the potential for sound in the cinema during the era of transition to sound in the 1920s and, not surprisingly, he advocated the use of sound as another element in his tension-based approach to montage. Eisenstein and other members of the Soviet Montage movement wanted the cinema to continue developing along the lines of montage, and considered sound as another potential layer of meaning construction. Creating meaning through montage requires a measure of juxtaposition that, for these filmmakers, is impossible if sound is used naturalistically as realist support for the images shown on screen. So they called for a film sound practice based on 'nonsynchronization with the visual images' as the key to developing the cinematic equivalent of 'orchestral counterpoint' (Eisenstein, Pudovkin and Alexandrov 1928: 84). A term borrowed from Western music theory, *counterpoint* for the Soviet Montage movement suggests that sound operates as another element of juxtaposition within the dialectic approach to montage so espoused by Eisenstein. Eisenstein's interest in counterpoint yielded a wide

variety of approaches to audiovisual pairing (see Thompson 1980; Robertson 2009).

Michel Chion has elucidated the confusion surrounding the correct meaning of *counterpoint* since the days of Eisenstein, insisting that the use of this term to refer to jarring juxtaposition has not done justice to its musical origins. Chion notes that the term *dissonance* is much better suited to describing the kinds of audiovisual clashes that are often referred to as counterpoint. In music, the term *counterpoint* refers to relationships between elements in sequence (horizontal) rather than simultaneous (vertical). As an alternative, Chion uses the term *free counterpoint* for instances where the sound and image tracks operate free of precise cause-effect relationships governed by vertical synchronisation, but with a relationship of simultaneity that creates a new layer of meaning that wouldn't exist if the sound and image tracks were presented separately (1994: 36–7). We can easily imagine why this possibility would be of interest to Eisenstein, father of the idea of synthesis through montage. Though Norman doesn't use the term *counterpoint*, her description of reflective listening in soundscape composition is based on the idea of a strategy for combining sounds to promote reflection through their interaction with one another, something that both counterpoint and dissonance achieve in music and which contrapuntal and dissonant relations between sound and image in the cinema can also do.

Though known for his disdain for the medium of film, R. Murray Schafer has shown a keen interest in the potential of multi-modal counterpoint and dissonance, and Eisenstein's theories of sound-image relationships in the cinema have, in fact, informed Schafer's thinking about the relationship between the arts and the goal of acoustic design. In discussing the underpinnings of his philosophy of art, what he calls the 'Theatre of Confluence' (in *Patria: The Complete Cycle* 2002), Schafer espouses the idea that disparate branches of the arts should come together to create more holistic approaches, somewhat akin to the Wagnerian dream of the *Gesamtkunstwerk*. Importantly, however, Schafer's version of the confluence of the arts has more in common with interest in counterpoint and dissonance espoused by transition-era Eisenstein than with the redundancy at work in the Wagnerian dream of interdisciplinary congruence in the opera. Like many early film sound theorists, Schafer's ideas about multi-modal confluence demonstrate a distaste for redundancy between sound and image, often found in realist approaches to synchronisation where what we see in the image must be reinforced by what we hear on the soundtrack. In fact, Schafer suggests that different media should come together in counterpoint, using Eisenstein as his example for what the cinema might have become if more filmmakers had adopted his ideas about contrapuntal sound-image relationships.

Speaking of early interest in multimedia performance art such as opera, Schafer tells us, 'It was thought that the total experience would be strengthened by having all the arts proceed in parallel motion; that is to say, whatever happened in one art had to be duplicated at the same instant in all the others. But this technique of synchronization results in an art form that crushes more than it exalts' (2002: 28). It is significant that he uses the term 'synchronization' in a negative sense, and it is here that he points to Eisenstein's ideal of counterpoint in sound-image relationships as a model for thinking about other confluence of media in the arts (2002: 29). Of course, Eisenstein moved away from his dialectics to embrace a more Wagnerian approach to sound-image pairing (Bordwell 1980: 146-7; see Robertson 2009). Schafer laments the fact that Eisenstein did not continue along his path of counterpoint, and dismisses the filmmaker's later work as part of the problem of the cinema's mainstream insistence on realist or redundant conventions of synchronisation.

Schafer and Norman share an affinity for Eisenstein's interest in activating viewer participation through contrapuntal montage strategies, and Norman's concept of reflective listening is premised upon the idea of promoting similar participation through the montage strategies at work in combining sounds within soundscape composition. Where Schafer moves in the direction of imagining what makes real-world sonic environments more interesting and habitable places to live, Norman considers the role of soundscape composition in promoting enhanced awareness of these real-world environments through their electroacoustical manipulation. What makes the appeals to Eisenstein important in both their cases is that they call for the tension between elements to work for the goals of acoustic ecology: to generate an awareness of space, something much more specific than Eisenstein's general interest in prompting the film audience to bring new meaning to juxtaposed images and sounds. For Norman, the montage work in soundscape composition brings the specific goal of spatial awareness from acoustic ecology and positions it within the realm of creative practice. And this is where adapting the concept of reflective listening for the audiovisual context of the cinema is most interesting: reflective audioviewing can demonstrate the importance of spatial representation in the cinema as a means of enhancing both our understanding of film form and our spatial awareness of the world outside the cinema.

So let us now consider how the processes of reflection engendered by soundscape composition become reflective audioviewing in the audiovisual context of the cinema. The use of Hildegard Westerkamp's soundscape compositions in Gus Van Sant's film *Elephant* can act as a figurative set of training wheels for bringing acoustic ecology to film studies, allowing us to address Westerkamp's compositional

strategies in the context of reflective listening and then discover how Van Sant imports these strategies into his film. In turn, we can establish a model for how to address film sound design in general with reflective audioviewing in mind.

5. NOTES ON ELEPHANT

The substance of reflective processes in *Elephant* lies in its creative handling of highly charged real-world material, its strategies for fusing realist naturalism with highly stylised technique on the levels of both sound and image. The narrative of *Elephant*, revolving around a high-school shooting spree, deals with youth culture in crisis, the distance between alienated individuals within the dense social structure of the typical American high school environment. The film is an ensemble piece in which a handful of students pass through the narrative in stories that intersect but which are never fully developed. As many critics have noted, the film tends to eschew elaborate character development for an approach to narrative that emphasises dead time, most notably through sequences dominated by a long-take aesthetic in which characters are filmed from behind as they walk between spaces, usually separated by doorways. Further, these long sequences are repeated at different points in the film from different perspectives in a non-linear approach to narrative progression. Film critic S.F. Said observes that '*Elephant* presents a startlingly fragmented vision of a social world, its people forever crossing paths but never connecting' (2004: 17-18). Said describes a particular dialogue interchange between characters John (John McFarland) and Acadia (Alicia Miles) in which the former can't articulate to the latter why he is crying: 'This is as close a human interaction as we get: two people failing to make a meaningful connection and then going their separate ways' (2004: 18). Many have taken the predominance of such lack of interpersonal connection as emblematic of the film's own distance from the severity of the subject matter it deals with: a critique of its lack of political engagement in favour of formal exercise. Yet it is hard to deny that the film draws the audience into a dissociative world, inviting us to reflect upon how such an environment can give rise to the actions of Alex and Eric on this fateful day.

Amy Taubin argues that the profound effect of the film results from the 'dialectic between documentary-style immediacy and formalist distance' (2005: 18). With her own nod to Eisenstein, Taubin's evocation of the film's 'dialectic' between real-world elements and their modification by the filmmakers echoes the characteristics of much soundscape composition described by Katharine Norman. The 'documentary-style immediacy' comes, in part, from a highly realist approach to visual representation and the use of non-professional actors combined with an emphasis on

location sound recording. On the other hand, a key element of the 'formalist distance' that most critics latch onto is the non-linear narrative and highly mannered approaches to montage and camera movement. Taubin ties the non-linearity to the way the film is positioned in relation to the real world events upon which they are based:

The effect is to transform what seems like 'real' time into recorded time and the time of memory, which is the mode in which the 'reality' of Columbine now exists. The reversals also suggest a longing to stop time, to prevent the inevitable tragedy from ever taking place. (2005: 18)

This non-linearity is a function of the film's approach to editing, of course, and is strangely enhanced by its smooth, languid camera movement, providing an eternal sense of the present moment while we shift back and forth in time. Both the camera movement and visual montage are clear indicators of the filmmakers' carefully pre-meditated fabrications that hang in tension with the naturalist performances and realist *mise-en-scène*.

The film's soundtrack floats between the registers of immediacy and distance, documentary and formalism; the aforementioned prevalence of location recording is mixed with other sound elements, most notably the soundscape compositions of Hildegard Westerkamp. As Westerkamp's compositions occupy a position on the soundtrack that is usually reserved for the background elements of sound design, it is easy to remain disengaged from the film's construction of auditory space. In describing the sparseness of dialogue as an example of the film's emphasis on dead time, Said refers to a scene that follows character Nathan (Nathan Tyson) walking through various wings of the high school complex on his way to meet his girlfriend Carrie (Carrie Finklea) at the front office: 'Five and a half minutes pass in which someone simply walks in silence before a mere 30 seconds of dialogue kick in' (2004: 18). Thinking of the film without attention to aspects of the sound design other than dialogue, one can easily come to the same conclusion as Said: 'It's all surface, and not once are we taken inside the character's heads. The cumulative effect is of distance and dispassion, of almost affectless observation' (2004: 18).

The scenes in which characters do not speak, however, are far from silent. As I will discuss now, the example of Nathan's walk through the school is one of the key moments in which the work of Hildegard Westerkamp is heard, and is a classic example of how thinking about film sound through the processes of reflective listening engendered by soundscape composition can lead us to a higher level of engagement with the film's audiovisual ecology. I argue that engaging in the reflection prompted by the

film's approach to spatial representation is what allows us to move beyond the surface of the film's formal qualities and into the social or political realm. Here we are asked to reflect upon what is taking place in the film and consider our own relationship to its space and, by extension, the spaces we inhabit outside the cinema.

6. DOORS OF PERCEPTION

Early in *Elephant*, a segment of Westerkamp's piece *Doors of Perception* is used in a sequence that follows character Nathan as he walks from the football field into a wing of the school's interior, out into a courtyard, back into the hallways and finally down to the office to meet his girlfriend.³ The original piece is structured around door sounds as mediators between the soundscapes of different environments. We hear the sounds of doors opening and closing to bring spaces together that would ordinarily be incompatible, creating as much of a mental journey through impossibly overlapping spaces as a representational journey through the spaces recorded for the project. *Doors of Perception* is perfectly emblematic of the kind of soundscape composition that engenders reflective listening: all the sounds in the piece are identifiable as emanating from real-world spaces, and yet their combination challenges the listener's concept of these spaces, forcing us to navigate them by way of the composer's mediation. Brilliantly, Westerkamp emphasises her own mediating hand through the symbolic use of door sounds as transitions between impossibly co-existing auditory environments. Equally brilliantly, Van Sant then appropriates this structure as Nathan moves between different sound environments mediated by the doors we see on screen, effectively mapping the imagined spatial movements created by Westerkamp onto Nathan's movements through the school complex. As I will demonstrate, the *mise-en-scène* remains highly naturalistic; if we were viewing the image alone, there would be no sense of spatial convolution. Westerkamp's piece steps in to simultaneously ground the images in naturalistic soundscapes while prompting the listener to reflect upon the relationship between sound and image.

Doors of Perception is absent for the first part of the sequence as Nathan begins his walk on the football field towards the school, during which we hear appropriate environmental sounds along with the solo piano of Beethoven's *Moonlight Sonata* (1801). The environmental sounds are clearly distinguished from the Beethoven piece through their spatial signatures, the latter presented in a clean studio

³The shot beginning with the interior of the school begins at 11:12 and ends with the 'Nathan and Carrie' title card at 14:05. The excerpt of *Doors of Perception* that runs for the duration of this shot begins at approximately 15:40 on its CD releases.

recording that bears no evidence that the piece is part of the 'voice' of the school's exterior grounds. As Nathan enters the building, a visual cut from outside to inside is accompanied by an abrupt change in the soundscape while keeping *Moonlight Sonata* a constant. We move from subtle environmental sounds to the sudden sound of a choir singing in a reverberant space along with sounds of doors opening and closing and the general shuffling of people moving about. This marks the beginning of the use of *Doors of Perception* for this scene. The cut from outside to inside treats Westerkamp's piece as though it is the soundscape of the interior of the building rather than operating as non-diegetic music conventionally does, as in *Moonlight Sonata* carrying over changes in location without being affected. The spatial signature of the sounds we hear is in keeping with the long corridors lined with hard surfaces that we see on screen, suggesting that Nathan's movement through this space would easily become part of its voice. Yet as he walks his footsteps are not audible; his movement does not reflect within the environment. Though many such reflective sounds are present from people who are not seen on the screen, Nathan moves as though an auditory ghost.

When comparing the sound in this sequence with Westerkamp's original piece, we find that *Doors of Perception* initially provides almost the entire soundtrack (aside from the Beethoven piece) until, slowly, other sounds emerge just before Nathan reaches the set of doors leading to the courtyard. These new sounds, mostly of voices and room tone, take over for *Doors of Perception* in the few seconds of silence that appear mid-way through the excerpt, and are treated with spatial signatures similar to those attached to the sounds in Westerkamp's piece. Then *Doors* returns with the sound of squeaking hinges just as Nathan passes through a set of doorways into the courtyard outside. Once he is outside, Westerkamp's piece again takes over as the primary soundscape, now presenting the much larger and open sounding space of a train station with public address announcements and the squealing of metal wheels on the tracks. This shift in spatial signature is synchronised exactly with Nathan's shift from interior to exterior space. Yet there is also a clear disjunction between sound and image here. Things we should hear – like a group of break-dancers visible on screen – are virtually inaudible. While the sounds that we do hear are strangely out of place. Then, as Nathan approaches the next set of doors leading back into the school, the sound of one of Westerkamp's doors closing is in perfect sync with a door we see closing in front of Nathan, offering a concrete point of synchronisation grounded in a naturalist approach to sound-image pairing.

The use of *Doors of Perception* described here moves between realist convention and *free counterpoint*. There

is a tension between the plausibility of *Doors of Perception* as naturalistic soundscape and the strange distance that its use here places between Nathan and his environment. This tension speaks to Westerkamp's recurrent interest in the notion of environmental 'feedback', the dialogue between the sounds we put into an environment and those sounds that the environment returns to us (see Westerkamp 1974 and 2001). Indeed, Westerkamp has stated that the use of her work in the film illustrates a form of movement through space that 'comes from a place of inner desolation/isolation (through empty institutional corridors and wide open suburban spaces in *Elephant*) ... where there is no connection to the environment other than perhaps a few not very meaningful meetings with people' (Westerkamp in Jordan 2007: 9). In this situation, she says, 'the place has no power to enter one's inner world; there is no relationship, no dialogue' (2007: 9). The space of the high school complex thus becomes charged with the paradox of simultaneous engagement and alienation that characterises the relationships the students have with each other and which might lie at the heart of Alex and Eric's violent reaction to this environment. Nathan's ethereal movement through this charged space prefigures his eventual demise: he and Carrie are the last of the characters in the film to meet the barrel of a gun while trapped in the cafeteria meat locker just after Alex's aforementioned pause set to Frances White's *Walk Through Resonant Landscape* #2. Ultimately, the doors of Westerkamp's piece and those of Van Sant's imagery join together to open the audience into a different realm of perception in which the nature of spatial representation in the cinema can make us aware of our own environmental engagement. We must then ask how these tensions reverberate through the lives of the characters subjected to this impossible space.

7. BENEATH THE FOREST FLOOR

Just after the shooting begins, another of Westerkamp's pieces is used to powerful effect. In *Beneath the Forest Floor*, Westerkamp takes sounds recorded in the forest and uses various manipulations to create an environment that plays with the relationship between the real and the imaginary. There are two key formal strategies at work in this piece. Firstly, field recordings of forest sounds are layered with non-representational ambiances. In fact, these ambiances are the very same recognisable forest sounds used elsewhere in the piece – mainly those of birds and water – electronically pitched down to render them abstract. These are the ambient drones and pulsating low frequencies that provide the foundation for the work, abstracted reflections of the naturalist approaches to spatial representation found throughout the piece. The second strategy is the use of dramatic stereo panning to create a disorienting sense

of space, again taking recognisable real-world elements and subjecting them to disorienting treatments. These compositional approaches are tied to Westerkamp's interest in how abstract spaces of the imagination connect to the world outside, an interest made most explicit in her piece *Kits Beach Soundwalk* (1989) and which David Kolber has situated within the context of reflective listening (2002). Although quite different in tone and strategy from *Doors of Perception*, *Beneath the Forest Floor* is mapped onto the space of *Elephant* with a similar logic governed by the movement of characters through spaces mediated by doors (and, in this particular case, a window too).

With the school in flames and desperate kids running every which way to try and escape, we see a single long-take of Benny (Bennie Dixon) slowly wandering the hallways. He comes upon a group of students hiding in a classroom, exiting from an open window one by one. One young lady is too stunned to move, and Benny enters the room and gently helps her up on the windowsill and out to freedom. He then turns back and continues his journey through the halls where he, too, will eventually be killed.⁴

At this point the film builds significant tension around the distinction between inside and outside emphasised by the theme of escape. Throughout the scene we see people running all over, many racing by doors clearly leading to the outside but without going through them. This creates a bizarre situation in which the sense of inside/outside is increasingly lost as people scramble about in the resulting confusion. The sounds presented during this shot support the conflation of interior and exterior space: along with the naturalistic sounds of fire and running footsteps from the film's original sound design elements we hear Westerkamp's eerie low-pitched pulse that underscores abstract drones of a higher register, punctuated by sudden bird calls and rushes of running water that are recognisable but also electronically distorted.

As in the previous example from *Doors of Perception*, this excerpt from *Beneath the Forest Floor* is timed to actions on the screen in interesting ways. Significantly, as Benny approaches the doorway to the classroom with the open window, a rapid right-to-left pan on the sound of rippling water is heard. This pan is used to introduce a new auditory space in which the abstract tonalities cease and the sound of a forest environment opens up with light wind through trees and more consistent birdcalls. These are sounds that are more clearly associated with the world outside than the more abstract treatments heard just prior. Though the shift in the soundscape is timed to the shift in spatial environment pictured on the

screen, the sounds we hear are far from perfectly representational of this space. Rather, the change from abstract processed material to a more representational soundscape acts as a metaphorical reflection of the bizarre situation unfolding within the school and the promise of a return to normality held by the open window. Additionally, the shot ends with the conjunction of another rapid right-to-left pan on a water sound that is timed precisely to Benny turning his head in the direction of screen left, a moment of synchresis that binds a sonic gesture to a visual one outside the norms of realist convention.

These two points of synchronisation operate more abstractly than the door sounds in Nathan's walk, and yet they still serve as anchors that illustrate the connection between sound and image at this moment in the film. This shot also differs from Nathan's walk in the continuous presence of environmental sounds that are not part of Westerkamp's original piece, such as the sounds of fire and kids rushing about in panic. Yet Benny himself remains quiet, without any audible footsteps of his own, continuing the theme of spatial alienation that runs throughout the film. It is significant that Benny – who is helping students rather than killing them – is losing his own auditory presence to the panicked sounds of everyone around him. The process of sonic feedback is again being disrupted, Benny's selfless offerings to the world going unreciprocated. It is a world that is turning itself inside out, a fact that is underscored by the eerie synchronicity between Westerkamp's piece and the events being portrayed on screen. And this sequence soon gives way to the one I describe at the beginning of this essay, Frances White's forest sounds and electronic tonalities extending wonderfully from Westerkamp's piece in a kind of peaceful dissonance emblematic of Alex's militant quest to banish the noise pollution of the school, noise that has stood as the marker of his social distress.

8. CONCLUSION

Reflective listening in soundscape composition can allow us a deeper understanding of how we engage with our lived environments by prompting reflection upon the tension between naturalist representation and compositional abstraction; reflective audioviewing in the cinema can do the same. Understanding reflective listening as a goal of soundscape composition helps us to locate reflective audioviewing as a goal of Van Sant's in his use of the work of White and Westerkamp. The depth of *Elephant* lies not in psychological development or narrative cause and effect. Instead, attention to the reflective aspect of the film's approach to spatial representation allows us to understand how the film uses space as an audiovisual analogy for the high school ecology, sound and image

⁴This shot begins at 1:08:44 and ends with the 'Benny' title card at 1:10:03. The excerpt of *Beneath the Forest Floor* heard here begins at 7:51 on Westerkamp's CD *Transformations* (1996).

mapping how these students navigate their physical, social and psychological environments. The film plays out spatially, but the social aspect can be gleaned in our experience of the reflective aspect of the film's audiovisual fusion of realist convention and free counterpoint. The specific points of synchronisation work to ground Westerkamp's work within the space of the film, while the anomalies allow us to consider the nature of the space we see on screen and how the characters interact with this space. The voice of the space in which these characters live gradually moves from the strained realism of *Doors of Perception* through the increasingly abstract nature of *Beneath the Forest Floor* and culminates with Frances White's *Walk Through Resonant Landscape #2*. Tracing the processes of reflection that progress towards turning the space of the school inside out, the audience is prompted to consider how our internal engagement with this spatial representation can open outwards into new ways of thinking about the spaces we inhabit outside the cinema. Finally, if soundscape composition uses creative practice to extend acoustic ecology's goal of fostering enhanced environmental awareness, then the cinema is fertile ground for pushing this goal even further into the realm of the audiovisual.

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