

Music as Sound: Applying ideas of schizophonia and soundscaping to music for the narrative theatre

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Theatrical music, in particular scores for the narrative theatre, presents unique problems when approached for the purposes of analysis and composition. There are a number of musical factors that are idiosyncratic in the theatrical setting, and so need to be re-assessed musicologically. The creation and reception of meaning, a key part of any art-form, is a particularly problematic concept when dealing with scores which are part of a complex dramaturgical relationship. Western classical composition has a well-established tool-set for the creation and understanding of meaning through form, harmony, and rhythm, but these lenses are not always useful. Examining in particular the manipulation of tension as a generator of meaning (a technique found in many musical and non-musical art-forms), it can be argued that the traditional tools of musical tension (cadences, dissonance, rhythmic aggression, structural imbalance) do not function well when constrained by the restrictions of narrative and staging. Instead, this essay examines the possibilities of a framework based instead on the soundscape, a term coined in relation to electronic music and adopted by other disciplines. In particular, it will focus on the use of schizophonia – the effect of the separation of sound from source – as a compositional technique. If we argue that emotional response (and tension) leads to the meaning of a work, it follows that schizophonia, inducing a conscious or unconscious tension response, can be used to create musical and dramatic meaning. By taking the idea of a soundscape and the related idea of schizophonia and placing it in a context of meaning generation and dramaturgical relationships, we can approach the analysis or composition of theatrical scores in a methodical manner. Drawing on disciplines including acoustic ecology, film music studies, electronic music, theatre and performance studies, and the study of theatrical sound

and music, this essay will argue that the separation of sound from source is a compositional technique that can be used to create musical and dramatic meaning through the control of tension.

Schizophonia

Schizophonia is a term first coined by R Murray Schafer in his 1969 book *The New Soundscape: A Handbook for the Modern Music Teacher*.¹ However, it names a concept that is hardly new, the origins of which lie in the traditions of psychoanalysis and acoustic theory. Schizophonia is a term which is summarised as the anxiety that arises from the “split between an original sound and its electroacoustic reproduction in a soundscape”, the phenomenon of a particular sound object emanating from an impossible place.² While most audiences today would not recognise the ‘anxiety’ Schafer sees in this phenomenon, the prevalence of electronically reproduced sound in contemporary society has resulted in the term being adopted by a wide range of disciplines and theoretical schools, including film theory³, electro-acoustic music⁴, world music⁵, and environmental sound⁶. This essay will apply these ideas to a previously unexamined context: the use of sound-source splitting in a live theatrical situation.

In order to examine this cross-disciplinary idea it is necessary to unpack terms that arise from the theatre study and musicological traditions. The first are the twin ideas of dramatic meaning and dramatic tension. These terms can be examined together due to the commonly held wisdom that drama arises out of tension and conflict. Gay McAuley, a performance scholar, argues that a performance practice ‘must be socially and culturally located’, and as such meaning arises out of the

¹ R. Murray Schafer, *The New Soundscape: A Handbook for the Modern Music Teacher* (Ontario: BMI Canada, 1969).

² Truax, “Soundscape”, *Handbook for Acoustic Ecology*.

³ Michel Chion, *Audio-Vision: Sound on Screen* (Columbia University Press, 1994).

⁴ Schafer, *The New Soundscape: A Handbook for the Modern Music Teacher*.

⁵ Steven Feld, “From Schizophonia to Schismogenesis: The Discourses and Practices of World Music and World Beat,” in *The Traffic in Culture: Refiguring Art and Anthropology*, ed. George E. Marcus and Fred R. Myers (University of California Press, 1995), pp96–126.

⁶ Duncan Geere, “Schizophonia: Its Cause, Effect and Solution,” *Wired Magazine*, 2010, <http://www.wired.co.uk/news/ted/2010-07/26/audio-environment-julian-treasure-schizophonia-cause-effect-solution>.

'lived' interaction between the performer and the audience.⁷ Writing from an anthropological and semiotic perspective, she argues that a performance contains a series of shared signifiers in all aspects of the production, creating meaning through the use of signs, and the relationships between signs and between the shared language and the audience. We can therefore argue that dramatic meaning is created not as an absolute on stage, but rather in the mind of the individual audience member. This theory is equally applicable to music performance, with the idea that meaning arises in the eye of the beholder but that a piece (or play) has only whatever meaning the audience member sees in it. As Kofi Agawu puts it "meanings are contingent, they emerge at the site of performance and are constituted critically by historically informed individuals in specific cultural situations...The final authority for any interpretation rests on present understanding. Today's listener rules."⁸

Dramatic tension is a quality that is harder to define but is equally as important to traditional Western theatre as the concept of meaning. From the convention of Chekhov's rifle ("If in the first act you have hung a pistol on the wall, then in the following one it should be fired"⁹) to the writings of influential theatre theorists Constantin Stanislavsky and Jerzy Grotowski, the creation and resolution of narrative or social tension can be said to be the core of conventional narrative theatrical performance. Grotowski talks of 'performance as an act of transgression' and refers to the ideas of catharsis as a driving force of plot resolution.¹⁰ His use of terms such as confrontation, violation and exposure indicates the importance that tension and conflict have as part of traditional dramatic performance.

⁷ Sophie Nield, "Review of Gay McAuley *Space in Performance: Making Meaning in the Theatre* Ann Arbor: University of Michigan Press, 1999.," *New Theatre Quarterly* 17, no. 02 (January 15, 2009): p197, http://www.journals.cambridge.org/abstract_S0266464X00014640.

⁸ Kofi Agawu, *Music as Discourse: Semiotic Adventures in Romantic Music* (Oxford: Oxford University Press, 2008), p4.

⁹ Ernest J. Simmons, *Chekhov: A Biography* (Chicago: Chicago University Press, 1962).

¹⁰ Jerzy Grotowski, T K Wiewiorowski, and Kelly Morris, "Towards the Poor Theatre," *The Tulane Drama Review* 11, no. 3 (1967): 60–65, <http://www.jstor.org/stable/1125118>.

This idea of tension can be linked back to R Murray Schafer's original context of anxiety. The generation of anxiety and 'sensual alienation' in the audience can be equated with the generation of dramatic tension as a way of inducing meaning in the minds of the audience.¹¹ Schafer (and others) argue that this anxiety arises from the dislocation between what is heard and what is seen. The tension arises because the "reproduction of a sound can confuse the brain because it can't always ascertain the source."¹²

By considering schizophrenia as a way to achieve a certain level of dramatic tension, we can explore how music in a theatrical setting can create or reduce dramatic meaning through the control of that tension. Different methods of splitting sound from source (as a compositional or dramatic technique) can be used to influence the construction of the play and produce meaning for the audience member.

It is important to address the existing uses of the terms schizophrenia (in film and world music studies) and explore the jargon that these disciplines supply us with. Film music in particular gives us the concept of diegesis, loosely defined as a narrative 'frame', which is particularly applicable to a theatrical study, and also introduces the concept of acousmatic sound – sound with no seen source.¹³ Despite the non-musical origins of the term 'acousmatic' (it was first used by the Greek peripatetic philosophers), it has re-emerged in film studies as a way of discussing sound (and music) for which there is no source seen directly on screen. Both diegesis and acousmatic sound are concepts that can be transferred to the narrative theatre, and provide a useful framework for our study.

Lastly, ethnomusicologist Steven Feld contributes to the application of schizophrenia to music through his work on world music. Feld uses schizophrenia to describe the process by which a musical cultural artefact is separated from its original source, using it as a metaphor for the colonial process:

¹¹ Schafer, *The New Soundscape: A Handbook for the Modern Music Teacher*.

¹² Geere, "Schizophrenia: Its Cause, Effect and Solution."

¹³ Chion, *Audio-Vision: Sound on Screen*.

it marks “the historical moments and contexts where oral performance and cultural participation are transformed into material commodity and circulable representation.”¹⁴ While this cultural perspective is not obviously applicable to our study, it is nevertheless important to acknowledge the wide use of the term, as it provides the context for Feld’s key concept, schismogenesis. Originally used in anthropological contexts, it translates literally as “creation of division”, and is used by Feld in response to schizophonia to refer to the recombination, remixing, and recontextualization of sounds split from their sources.¹⁵ This schismogenesis uses the nervous tension of the split from sound and source to create interest and meaning in musical works. For Feld it is the context that is key, as the connections between works and the shared origins of ideas become important.¹⁶ His main example, while not theatrical, is still a good explanation of the concept. He traces the appropriation of a particular musical idea from an original ethnomusicological recording of a pygmy tribe, discovery and use by funk musician Herbie Hancock, and sampling by pop singer Madonna.¹⁷ For him the meaning of the music (if we ignore the post-colonial complications) comes from the tension between the contexts and origins of the music and its later incarnation. In this example the schismogenesis can be seen in the way that the conflict between ‘cultural property’ and commercial product creates aesthetic tension, which is a key component (for Feld) of the meaning of music of this genre.¹⁸

Adapting schismogenesis to scores for theatrical purposes we can use the term to refer to the artistic manipulation of schizophonia to create new musical and dramatic meaning.

Sound and Reproduction

R. Murray Schafer originally conceived of schizophonia as an entirely negative phenomenon born from the transmission and reproduction technologies of the electronic and mechanical age.

¹⁴ Steven Feld, “Pygmy POP. A Genealogy of Schizophonic Mimesis,” *Yearbook for Traditional Music* 28 (January 1, 1996): 1–35, <http://www.jstor.org/stable/767805>.

¹⁵ Feld, “From Schizophonia to Schismogenesis: The Discourses and Practices of World Music and World Beat.”

¹⁶ Feld, “Pygmy POP. A Genealogy of Schizophonic Mimesis.”

¹⁷ Ibid.

¹⁸ Ibid., p7.

Although he does not directly connect them, Schafer's ideas seem to build on the earlier ideas of Walter Benjamin. Benjamin, in his influential 1936 paper *The Work of Art in the Age of Mechanical Reproduction*, talks of the effect of mass reproduction on the uniqueness of an original artwork. Although he talks mainly about the reproduction of visual art through photography and printing, he sets up the idea of a recursive relationship between artwork and its context. In addition to having a "unique existence at the place [in time and space] where it happens to be", the original artwork is inextricably related to its surroundings: the "unique existence of the work of art determined the history to which it was subject throughout the time of its existence".¹⁹ He argues that the specificity of an original work is lost when it is reproduced and translocated, a position which is developed by Schafer and transferred to the world of reproducible and original sound. In Schafer's view, the endless advance of technology has resulted in systems that are able to provide "for the complete portability of acoustic space. Any sonic environment can now become any other sonic environment."²⁰ Schafer sees the loudspeaker as an imperial invention designed to transpose personal sonic utterances into foreign situations. "Indeed, the overkill of hi-fi gadgetry ... creates a synthetic soundscape in which natural sounds are becoming increasingly unnatural while machine-made substitutes are providing the operative signals directing modern life." In this original conception of schizophonia (as a "nervous" word) it is important to remember that it is presented as an anxiety rather than a pure phenomenon: "As the cry broadcasts distress, the loudspeaker communicates anxiety."²¹

Schizophonia in Music

Although schizophonia is an idea that evolved out of soundscape studies and electroacoustic sound-design, it has been applied to musicology, and it is important for this study that we are able to apply the idea to musical works. There are two ways to apply the notion of schizophonia to music: as a

¹⁹ Walter Benjamin, *The Work of Art in the Age of Mechanical Reproduction* (London: Penguin UK, 1936), p11.

²⁰ R. Murray Schafer, "The Soundscape: Our Sonic Environment and the Tuning of the World" (1994): Kindle Locations 1928–1929.

²¹ *Ibid.*, Kindle Locations 1934–1936.

metaphor for a cultural process of displacement; and as a sonic effect used in compositions and their reproduction. We can see schizophonia as a cultural process if we return to the ethnomusicological approach of Steven Feld. He sees schizophonia as a process in the cultural appropriation and transposition of cultural objects:

*Ethnomusicologists and anthropologists could once claim innocence about the activities of recording and marketing what was variously called tribal, ethnic, folk, or traditional music. Now there is little doubt that this whole body of work, since the time of the invention of the phonograph, has been central to complex representations and commodity flows that are neither ideologically neutral, unfailingly positive, or particularly equitable.*²²

Schizophonia as a general sonic or musical effect (the form most similar to Schafer's original conception) is applied to Western music in the writings of Schafer himself, and supported in the works and thoughts of other contemporary writers, particularly those in the electronic or electroacoustic music scene. When applying the ideas to conventional Western music, however, it becomes possible to move the ideas into non-electronic contexts, providing a framework to examine music of earlier periods and cultures. In discussing schizophonia as a compositional technique, Schafer argues that "the desire to dislocate sounds in time and space had been evident for some time in the history of Western music, so that the recent technological developments were merely the consequences of aspirations that had already been effectively imagined."²³ Schafer provides examples from Western music (Baroque antiphony in particular), focussing on the ways that composers tried to highlight and enhance the separation from source for musical effect:

In the practical sphere, the introduction of dynamics, echo effects, the splitting of resources, the separation of soloist from the ensemble and the incorporation of instruments with specific referential qualities (horn, anvil, bells, etc.) were all attempts to create virtual spaces

²² Feld, "Pygmy POP: A Genealogy of Schizophonic Mimesis", p13.

²³ Schafer, "The Soundscape: Our Sonic Environment and the Tuning of the World," Kindle Locations 1917–1919.

*which were larger or different from natural room acoustics; just as the search for exotic folk music and the breaking forward and backward to find new or renew old musical resources represents a desire to transcend the present tense.*²⁴

Acoustic Ecology

Schizophonia, as part of a wider study of soundscapes and their creation, arose out of a field of study of sounds in culture, which has been termed acoustic (or soundscape) ecology. The World Soundscape Project, the group that arose out of the works of R Murray Schafer and his contemporaries in Canada and worldwide, defines acoustic ecology in *The Handbook of Acoustic Ecology* as “the study of the effects of the acoustic environment, or soundscape, on the physical responses or behavioural characteristics of those living within it.” True to the intentions of Schafer (and the general focus of ecological approaches), it is a negativistic approach “to draw attention to imbalances which may have unhealthy or inimical effects.”²⁵ A key figure in the acoustic ecology movement is Canadian electronic composer Barry Truax. He worked with Schafer to create the soundscape project, and has written several key studies on the subject of soundscapes and schizophonia. Truax’s focus is on the role that aural environments have in human lives and interactions. In particular he highlights the bond that sounds have with the environment that created them. In an acoustic world, sounds take on the qualities of the environment from which they come, both in terms of individual sonic components and in terms of the overall acoustic shaping of the timbre. This creates a unique sense of place in the ears of a listener: “the sound arriving at the ear is the analogue of the current state of the physical environment, because as the wave travels, it is charged by each interaction with the environment”.²⁶ A key part of the ‘ecological’ interaction of sounds is the idea that one sound can be ‘masked’ by another. Masking can have positive benefits, as it “can make the sonic environment more pleasant” but, conversely, a greater number of masking sounds can “result in a higher ambient noise level and may pose a greater aural health hazard, or

²⁴ Ibid., *Kindle Locations 1921–1925*.

²⁵ Truax, *Handbook for Acoustic Ecology*.

²⁶ Ibid.

communication difficulties”.²⁷ Truax brings the role of the listener into the spotlight, as sound is only defined in/at the ears. His major contribution is to outline the various factors that can interact or interfere with sounds, such as the acoustics of a space and the timing of various *objects sonore* (lit. sound-objects, units of sound that can be seen as motifs or ideas within a soundscape), and to see sounds from the real world and electroacoustic sources as fundamentally the same in their properties. The idea that meaning is only found at the point of listening connects to the earlier arguments of Agawu and Macauley, in which the listener defines the meaning of a work, but shifts it into a physical rather than cultural environment. Schizophonia does have an entry in *The Handbook*, but we can see these ideas extended through the entries for ‘masking’ or ‘transients’; for Truax sound is dealt with in a psychoacoustical or physical manner, rather than in aesthetic or poetic terms.

To argue that meaning in a soundscape or musical work arises at the point of listening rather than the point of production means that the relationship between source(s) and audience is key. To explore this relational model of sound interaction and impact we can turn to Eric Clarke, a musicologist who writes on the perception and psychology of music. He discusses how meaning can come from the sounds we hear, as “when you hear what sounds are the sounds of, you then have some understanding of what those sounds mean”.²⁸ He looks at the way that audiences find meaning in the music they hear, and how this guides their understanding and actions. A useful facet of Clarke’s approach is the incorporation of sound and music as two equally important but individual aspects of our aural landscape: sounds have contexts which give them meaning. This individualisation of various aspects of music, a ‘fragmentation’ as he calls it, is a useful way of approaching soundscapes within a musical context. Clarke sees music as a “large and complex web of phenomena”, of which sound is a single component.²⁹ Other components are the social context,

²⁷ Ibid., “Masking.”

²⁸ Eric Clarke, *Ways of Listening : An Ecological Approach to the Perception of Musical Meaning* (Oxford: Oxford University Press, 2005), p3.

²⁹ Ibid., p5.

the 'feeling' of music, or the understanding or the explanation of music. Each component can be examined individually in as much detail as needed, as long as the relationship to the other components of the wider musical experience is not ignored. In relating sound to music, rather than as pure environmental sound, Clarke is an example of the application of ideas that originally arise from pure sound and acoustics being usefully applied to music and musical meaning.

Schizophonia and Film

Schizophonic sound, as conceived by Schafer, is explored through a contextual mode of classification. Sounds and sonic units are classified based on their framing and context and not by anything integral to the sonic qualities of the sound. It is perhaps for this reason that schizophonic ideas are so prevalent and practical in the examination of music and sound for multimedia and film. As film music has developed over the last century, so too have the theoretical approaches of academics, composers and directors.³⁰ While not a direct parallel, sound functions in a similar way in film and theatre, and the theories of one area can be applied to the comparatively less developed world of the other. Film music in particular provides us with a good model of the use of schizophonia as a technique to create meaning through tension. It was through film music that the idea (and term) of schizophonia was introduced to the broader public, and film is the most common medium for complex soundscapes in popular culture. The importance of electronic reproduction in the modern conception of schizophonic sound lends itself well to a reformulation in the study of film music, as modern film sound relies on the technologies of electronic reproduction.³¹

Perhaps the most significant figure in the incorporation of schizophonic ideas into a theory of film sound and music is French experimental composer (and student of French composer Pierre Schaeffer, originator of acousmatic music) Michel Chion. In his book *Audio-Vision: Sound on Screen*

³⁰ Douglas W Gallez, "Theories of Film Music," *Cinema Journal*, vol 9, no. 2 (1970): 40–47.

³¹ Isabella van Elferen, "Dream Timbre: Notes on Lynchian Sound Design," in *Music, Sound and Filmmakers: Sonic Style in Cinema*, ed. James Wierzbicki (New York: Taylor & Francis, 2012), 172–188.

he examines sound and music from an aesthetic and technical point of view.³² Prior to this, the study of film music had been largely driven by narratological and functional perspectives, but the incorporation of theories of aesthetics, semiotics, context, and *acousmêtre* (Chion's application of acousmatic sound to the world of film and sound-objects) was his most important contribution.

The major contribution of Chion's book is to introduce ideas of acousmatic sound into the exploration of meaning in narrative (in this case film). He adapts his ideas from those of Pierre Schaeffer but explores the tension between the 'audio' and the 'visual'.³³ He argues that the visual context is important to the understanding of the aural soundscape: "without vision, off-screen sounds are just as present – at least as well-defined acoustically speaking – as on-screen sounds. Nothing allows us to tell the two apart. Acousmatized and reduced to an ensemble of sounds... the film completely changes." It is the "relation" between what one hears and what one sees that gives meaning to the music as "without the image, the sound ... is meaningless".³⁴ In film, with its single visual dimension (limited to the screen) the dichotomy between 'visualized' and 'acousmatized' sound is a relatively straightforward one. There can only be three kinds of sound (in Chion's view) 'visualized', and 'active' and 'passive' off-stage (or acousmatic) sounds.³⁵ Visualised sound is sound that is portrayed as emanating from a source seen on-screen. Active off-screen sounds "issue from objects that could be identified by sight" should they be brought on-screen. Passive off-screen sound "creates an atmosphere that envelops and stabilises the image" without raising questions of source. Chion places film sounds within a useful framework which – though not based on intrinsic sonic qualities (such as the soundscape taxonomy of Schafer) – relies on the relationship between music and its visual/theatrical context. Tying the audio to the visual is equally as applicable to theatre as it is to film, and Chion gives us a useful model for the relationship between what is seen on stage and what is heard by the audience.

³² Chion, *Audio-Vision: Sound on Screen*.

³³ *Ibid.*, p32.

³⁴ *Ibid.*, p83.

³⁵ *Ibid.*, p85.

The use of a schizophrenic tension between the audio and the visual can be used as a technique to increase tension in the meaning and narrative of the film. Randolph Jordan, bringing Schafer's schizophonia into film sound, argues that Schafer's version of schizophonia (an essentially negative perspective) "posits an average listener that cannot separate the real from the represented, and thus representation [or electronic reproduction of sound] should be banished lest this listener become confused, disoriented and disconnected from the environment."³⁶ Although he sees this as perhaps an extreme position, it nevertheless presents a contrasting perspective for our study, and one that is backed up by other sources. The strong association for the listener between sound and a physical source is a connection that can be manipulated for dramatic effect. This is a continuum between schizophrenic discord and unified harmony. At one end we have sounds which have an element of uncertainty and mysteriousness in them. Chion argues that "a sound or voice that remains acousmatic [unseen] creates a mystery of the nature of its source, its properties and its powers, given that casual listening cannot supply complete information about the sound's nature and the events taking place".³⁷ This can be used for dramatic effect according to Elferen: "Because sound is assumed to proceed from a physical source, listeners automatically search for the material body that generates the sounds they hear; this is a natural reflex that governs sonic perception... The obfuscation of causal relationships between source, sound, and signification engenders cognitive dissonance in audiences"³⁸. This cognitive dissonance can be seen as a phenomenological response to dramatic tension, as subconscious tension created by sonic qualities is projected onto the dramatic artwork, producing meaning from tension. Perhaps equally important to the creation of meaning is the *release* of tension, which can also be done through sonic or musical means:

The basic idea is that humans are motivated to maintain congruence in their perceptual world such that any physical discrepancies (of a reasonable magnitude) are reduced in order

³⁶ Randolph Jordan, "Case Study: Film Sound, Acoustic Ecology and Performance in Electroacoustic Music," in *Music, Sound and Multimedia: From the Live to the Virtual*, ed. Jamie Sexton (Edinburgh: Edinburgh University Press, 2007), p204.

³⁷ Chion, *Audio-Vision: Sound on Screen*. p72

³⁸ Elferen, "Dream Timbre: Notes on Lynchian Sound Design." p180

*to attain an integrated and unitary percept. This not only provides individuals with a sense of harmony and well-being, but also ensures a more efficient use of cognitive resources. In lieu of dividing one's attention among separate sources of information, perceptual unification allows one to direct attention toward a single event that entails less effort.*³⁹

By controlling and releasing tension, film composers and sound designers can create and manipulate meaning in their films. Similarly, composers for the stage can use tension as a way of exploring the relationship between what is seen and heard, and between unity and discord.

Relationships

It is important to acknowledge the effect that relationships have on the creation and reception of artistic work in a narrative context. Whether in film, theatre, or dance, the music exists in a contextual and collaborative world, a world which must be analysed if we are to understand the works that arise from it. There are two relationships that are relevant to this study, and it is important to look at how they shape the work produced. The first, and most enigmatic, relationship is the one between the composer and the director of the work being composed. The second is the relationship between the work (or the intentions and output of the composer) and the audience which is listening to the music and watching the performance. Whether the personal collaborative relationships between those with 'creative' roles or the mediated relationship with the audience, that relationships and context are the shapers of meaning in a multidisciplinary work, as attested by Clarke and Feld.⁴⁰

The relationship between composer and director is one of the most important in the creation of music for films and the theatre. Film and theatre may have an emphasis on the power of the

³⁹ Marilyn G Boltz, Brittany Ebendorf, and Benjamin Field, "Audiovisual Interactions: The Impact of Visual Information on Music Perception and Memory," *Music Perception: An Interdisciplinary Journal* 27, no. 1 (2009): 43–59. in G. Aschersleben, T. Bachmann, & J. Musseler (Eds.), *Cognitive contributions to the perception of spatial and temporal events* (pp. 371-387). (New York: Elsevier Press) discussing Welch, R. B. (1999). "Meaning, attention, and the "unity assumption" in the intersensory bias of spatial and temporal perceptions."

⁴⁰ Clarke, *Ways of Listening : An Ecological Approach to the Perception of Musical Meaning*; Feld, "From Schizophonia to Schismogenesis: The Discourses and Practices of World Music and World Beat."

auteur⁴¹, but the composer has skills that the director does not, and so a close collaboration is needed to fully integrate the music and the visual. Elferen looks at the films of David Lynch to highlight this relationship: “Lynch has most often worked with composer Angelo Badalamenti, whose mark on Lynchian sound design has been so lasting that he is almost as responsible as Lynch himself for its eerily nostalgic reputation”.⁴² It is the closeness of the relationship that allows the full integration of audio and visual, with this particular composer supporting the director’s unconventional style with unconventional scoring. The collaboration enables composers such as Badalamenti to “add a sonic dimension to the uncanny *sfumato* of over- and under-signification that determines Lynch’s cinematic style”.⁴³ Collaborative relationships in the theatre are perhaps less well documented, but looking at programmes and databases reveal certain directors who frequently engage the same composer for multiple productions, indicative of a strong relationship. This is also documented in interviews with experienced theatre composers Alan John and Stephen Warbeck, both of whom emphasise the tight relationship between the composer and director.⁴⁴ Technical manuals such as *Sound and Music for the Theatre* by Kaye and Lebrecht also stress the importance of the working relationship with the director:

*When it looks as if your intention for a cue is being ignored or misinterpreted, bring this to the attention of the directors ... and, if necessary, remind the director of what was requested. If the director’s intention has changed, you might need to redo the cue... The director has the entire production to consider, but you have to make sure that the dramatic potential of the sound is being fully realised.*⁴⁵

⁴¹ Elferen, “Dream Timbre: Notes on Lynchian Sound Design.”

⁴² *Ibid.*, p181.

⁴³ *Ibid.* p182.

⁴⁴ Sydney Theatre Company, “Q & A: Alan John,” *Back Stage*, 2011, <http://www.sydneytheatre.com.au/magazine/posts/2011/december/qa-alan-john.aspx>; Sergio Gorjón, “Interview with Stephen Warbeck,” *BSOSprit*, 2013, http://www.bsospirit.com/entrevistas/warbeck_e.php; Sharon Verghis, “Sonic Boom,” *The Australian*, June 11, 2011, <http://www.theaustralian.com.au/news/arts/sonic-boom/story-e6frg8n6-1226071211558>.

⁴⁵ Deena Kaye and James LeBrecht, *Sound and Music for the Theatre: The Art and Technique of Design*, 2nd ed. (Boston: Focal Press, 2009), p15.

As previously discussed, the discovery and creation of meaning in artistic works is largely subjective, based on the context and relationships surrounding the work and the performance. While it is by no means a negative issue, the idea of meaning in music depends as much on the listener as it does on the intentions of the composer or performers. Subjectivity is also found in the viewing of other art-forms such as dance or theatre, and combining disciplines results in a complex and ambiguous presentation. Music in these instances can support and bolster the ideas of the play or film, or it can add a separate strand of complementary meaning,⁴⁶ but the instances are nevertheless still dependent on context and interactions to create emotional or intellectual meanings.⁴⁷

Categorising the soundscape

In contrast to the subjectivity of the search for meaning in theatrical music, a non-dramaturgical or natural sound-world can be approached with some level of objectivity. Aside from acoustical or mathematical modelling methods, ideas of soundscape configuration (based on the writings of Schafer and Truax⁴⁸), schizophonia (Schafer⁴⁹), and level of diegesis or narrative framing (Chion⁵⁰) give us the components of a framework that we can use to approach a score or sound design. This framework involves three qualities of a sound: the type within a soundscape, the level of *acousmétré* or direct/visualised sound, and the role within the visualised performance.

According to the *Handbook of Acoustic Ecology*, there are three main areas that a component sound can fall into when part of a larger soundscape. *Keynote sounds* are the background sounds to a piece or an environment, an atmosphere of sounds that may not be consciously audible but identify the character of the people or the environment. This texture provides the basic foundation on which

⁴⁶ Ibid.

⁴⁷ *Composers use this subjectivity as a means of hinting at additional levels of subtext, as can be seen in the offstage choirs in Edvard Grieg, Peer Gynt Op. 23*, ed. Gustav F. Kogel, Vocal Score (Leipzig: Edition Peters, 1908), (1908) or *the Melodrama in Felix Mendelssohn-Bartholdy, A Midsummer Night's Dream Op. 61*, ed. Julius Rietz (Leipzig: Breitkopf & Härtel, 1874).

⁴⁸ Schafer, "The Soundscape: Our Sonic Environment and the Tuning of the World"; Truax, *Handbook for Acoustic Ecology*.

⁴⁹ Schafer, "The Soundscape: Our Sonic Environment and the Tuning of the World."

⁵⁰ Chion, *Audio-Vision: Sound on Screen*, p109.

further identifying characteristics can be built. Theatrical and filmic scores and soundscapes often use largely keynote sounds, as they can underpin the environment without demanding attention. If we were to find a musical equivalent we could think of this as being the accompanimental pattern, *ripieno*, or timbral texture that acts as the foundation for musical melody and motif. Although we rarely listen to music in an unconscious way, this is the part of a composition designed not to be noticed, the underpinning chord progression, the sustained drone, the rhythm section, or the complex string texture. *Sound signals* are foreground sounds which should have some associations for the listener, sounds that are heard consciously and that signify a certain event. These are the everyday signals that are meant to be noticed, and could perhaps be equated to melody and longer forms of musical expression which explicitly grab the ear. Perhaps solos or distinctive instrumental sounds would fall into this category. *Soundmarks* are the aural equivalent of landmarks, and are sounds that are unique to a geographic area and act as immediate signifiers of a particular place or idea. Schafer and Truax argue that these should be preserved (like landmarks) due to their uniqueness and importance to a place.⁵¹ To equate the idea with music would be to think of them as the singular motifs which are unique to a composition, and which encapsulate it in just a moment: the opening notes of Beethoven's 5th, the whistle in *West Side Story*, or the opening riff of *Smoke on the Water*.

Qualifying the level of schizophonia in a sound is a relatively straightforward thing to do in this model. The two extremes of the spectrum are direct sounds (those in which the sound is presented in its original form) and acousmatic sounds (sounds which have no visible or visualised source). In between these clear-cut boundaries is the tension-laden area that gives rise to schizophonia: sounds which are being reproduced or replicated away from their original source. Although the World Soundscape Project sees schizophonia arising out of acousmatic sound, placing them on a continuum allows us to identify the significance of sound production in a more detailed way

⁵¹ Truax, *Handbook for Acoustic Ecology*, "Soundmark."

Chion's model of diegetic/non-diegetic or visualised/non-visualised sound is not quite complex enough for the nuanced relationship between theatrical performance and theatrical space, but we can reframe it to add a third dimension to this framework. The first dimension, which usually includes the first musical cue of a performance, is the Inter-scene music or sound. These are the overtures, intermezzos, entr'actes, and preshow and interval soundscape sequences which take place completely outside the world of the play, designed only for the audience's entertainment, and which do not interact at all with the narrative or context of the play, other than to set the mood or atmosphere for what preceded it or for what is to follow. The next category is the In-scene musical cue. These are cues in which the music can be heard (in some form) by the characters within the narrative. This can include onstage performers singing a song, listening to a juke-box or radio, dancing and many forms of onstage interaction. This is what Chion and others refer to as diegetic music.⁵² These first two categories are straightforward because they exist either completely outside or completely inside the narrative world of the play. Perhaps the most delicate type of music in the theatrical context is Intra-scene music. This consists of music that happens during a scene, but is not really heard by the characters, such as underscoring, melodramas, recitatives and symbolic music (such as representations of ghosts, magic etc).

This framework of ideas, compiled from a number of academic sources, demonstrates that it is possible to analyse and approach a soundscape or musical item in film, dance or theatre based on a small number of simple observable characteristics. While not giving quantifiable data, they should nevertheless result in consistent qualitative answers when faced with a score or sound composition. However, pointing out the origin and function of various sound or musical components does not really provide a full and nuanced picture of the music or the importance it has in the creation of meaning in a dramatic context. By combining the subjective approach found in the exploration of context and relationships with the structured outlining of sound and source, the relationship between the listener and the sound-world can be more comprehensively understood.

⁵² Chion, *Audio-Vision: Sound on Screen*, p109.

We have already discussed the various approaches that theorists have taken to the discussion concerning meaning in art and music. Whether the semiotic approach of Gay Macauley and the Acoustic Ecologists, or the narratological approach of the film theorists, the understanding of the construction of meaning is the key point of any analytic approach. We therefore need to look at how meaning is generated in theatrical circumstances, and how the ideas discussed above can be incorporated into a theatrical approach. Kaye and Lebrecht say that meaning comes from contrast and emotion: “The context within which a sound effect is heard will help shape its purpose...once you can attribute human qualities to the sounds you are creating, you can achieve the texture you want for a particular scene. And once you determine the emotion that you want your effect to illustrate, you can vary the [qualities] to temper its basic feel – within limits.”⁵³ Although their book is a practical handbook, many of the examples they cite show evidence of schizophrenic tension as a creator or heightener of drama: even when dealing with simple matters such as the volume of a cue, the disorienting effect on the audience is considered, as it is when discussing ‘emotional pacing’.⁵⁴ They use the dichotomy of realism–fantasy to illustrate the ways in which disconnection can be reduced or increased for dramatic meaning, but say that the decisions should derive from the intended meaning, not the other way around: “Having sound or music that contrasts with the emotions of a scene can be just as powerful as having sound and music that supports them,”⁵⁵ particularly in stylised forms of theatre where sounds can be abstracted and presented anew to increase tension (the authors use the example of the amplified disembodied heartbeat).⁵⁶

Ross Brown makes an effort to incorporate musical composition into the traditionally non-musical study of theatrical soundscapes. He cites this development as coming from the world of the integrated film soundtrack, in which the boundary between sound and music is blurred. In contrast

⁵³ Kaye and LeBrecht, *Sound and Music for the Theatre: The Art and Technique of Design*, p16.

⁵⁴ *Ibid.*, p31.

⁵⁵ *Ibid.*, p17.

⁵⁶ *Ibid.*, p21.

to the traditional departmental model put forward by Napier,⁵⁷ Brown argues that “it should be remembered that a theatre score – whether made up of musical or non-musical sounds – is not music in the ‘standalone’ sense of concert or album music, which exists within and according to its own musical form. Theatre scores are structured by dramaturgical form and ‘designed’ to be heard in relation to the main object of attention. They are usually an environment rather than an object”.⁵⁸ This brings the contextual relationships that underpin the genre to the fore, relationships in which the meaning is derived from the “relation to the main object of attention” rather than from the music as object. Brown argues that if theatre-style soundscapes, *musique concrète* or Cage-style events can be seen as music, then traditional ‘musical-sounding’ cues in a dramaturgical framing can be seen as sound design.⁵⁹ The idea that the same ideas frame a theatre work no matter what kind of sound objects are used is a powerful one, and one that encourages a unifying approach such as the soundscape one described above. The aforementioned approach has been categorised by sound-source and by dramaturgical function, two facets which tie in well with Brown’s ideas of a sonic/musical environment that is dramaturgically entangled. We can see the source distinctions (direct/schizophonic/acousmatic) as mapping on to the environmental strand of Brown’s approach, while the narrative divisions (inter-/intra-/in-scene) are giving more granularity to the relationship between the music and the ‘main object of attention’ – the play.

As we have seen through the various writers discussed above, there is no simple way to differentiate sound from music in the post-electronic age. The advance of technology, and the twentieth-century shift in musical intentions and aesthetics, has resulted in music-of-sounds and music-as-sound. In particular this holistic approach is useful for the examination of theatre scores, as it is the relationship and contexts of ideas, objects and performances which give a work meaning. The soundscape, originated in the world of electroacoustic music, developed by the acoustic ecologists,

⁵⁷ Frank Napier, *Noises Off - A Handbook of Sound Effects* (London: F. Muller Ltd, 1936).

⁵⁸ Ross Brown, *Sound: A Reader In Theatre Practice* (Basingstoke, Hampshire, UK: Palgrave Macmillan, 2010), p45.

⁵⁹ *Ibid.*, p46.

and adopted by the film theorists, has become part of the mainstream approach for theatrical sound designers, and is starting to become a key part of the theatrical composers' toolbox. While it is easy to think of the technique as one concerning composition using sound and electronics, it is equally as appropriate for dealing with more traditional composition. In particular, the concept of schizophonia, when developed from its original ideas, becomes useful as a musical analogue for dramatic tension. Traditional methods of musical tension (cadences, dissonance, rhythmic aggression) do not always function well in dramaturgical relation, but in these instances we can adopt the tension method of the categorised soundscape (whether musical or non-musical sounds) as a model for the creation of meaning through the manipulation of tension. Approaching theatrical scores through a qualitative framework, informed by the context and relationships, gives us a way of exploring the musical components of narrative theatre. Schafer may have not intended it when he coined the terms 'soundscape' and 'schizophonia', but they have applications for this peculiar and connected art-form beyond their original conception.

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