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# *A Sense of Place: A Sense of Space*

## *Introduction*

IT is self-evident that since its invention in 1878, the recording and subsequent reproduction of sound by mechanical and other means has had many profound consequences for music. Both the actual techniques of recording sounds and the ways in which the products – the recorded artefacts – are used have changed music's commercial status and the manner in which it facilitates social interchange. The dissemination and distribution of recorded music resulted in a process of commodification, which continues today as digital downloads become increasingly commonplace. It has even been suggested that downloads threaten the existence of the compact disc and other fixed media. Such effects on market forces must be acknowledged, but with the rapid development of technology all predictions are at best only provisional.

In addition to these changes in the market place, composers and producers have also been active in using the actual medium of recording to creatively intervene in how sounds can be preserved, modified and, most important of all, subsequently used as 'musical' material. Musicians now have access to any sound that can be recorded. But this statement needs to be examined: what is meant by a 'recorded' sound? Few would claim that recordings 'simply' preserve sounds in a neutral manner. Sound events are either captured within the controlled acoustic setting of a studio or are subject to the fixed characteristics of a location. Examples of this might be the reverberation of a concert hall or, in the case of an outdoor location, the reflections from buildings and other acoustically significant objects. These acoustic characteristics might be considered secondary features, subservient to other aspects of music such as pitch, spectral constitution or duration. Nevertheless, they are integral aspects of the recording and thus crucial to the way sounds can be used and perceived. Subsequent (usually digital) processing can manipulate these acoustic qualities, and environments with characteristics that are entirely artificial but 'realistic', or impossible to create in the real world can be suggested. Thus, the acoustic properties of locations (real or virtual) are now part of both the record producer's and the electroacoustic composer's palette of possibilities.

Our concern in this chapter is the interaction between the act of recording and the way such acoustic environments are preserved and communicated. Three subject areas have been selected for particular attention: recording techniques in classical,

popular and electroacoustic music. Though these genres are often regarded as irreconcilable examples of low- and high-art, issues of place and space are, in fact, common to all of them. For example, even the most basic recording of music in a popular genre demands a complex series of decisions regarding the placement of microphones and instruments/voices. In so doing, record producers and engineers create a mixture of discreet sonic locations by means of studio techniques. The individual components of the drum kit are placed in one or more discrete positions (and possibly different acoustics) within the stereo image, the lead guitar in another and the voices often in other, different ambiances. Even though the recognition of such complex environments is not the primary purpose of the final product, a unique 'sound' is created and the clarity of the individual instruments' positions is necessary to the commercial success of the record.<sup>1</sup> The electroacoustic composer is also acutely conscious of how locating sounds can result in complex interactions that may create acoustic environments and thereby enhance meaning and clarify intention – though financial success in this latter genre is rarely an issue.

We will address some of the ways in which various genre-specific approaches to the compositional and recording processes utilise these various possibilities. In so doing, we seek to examine our experience of sound in relation to space and how the resulting sensibilities inform and are themselves informed by those places that we perceive, experience or imagine. We also highlight certain areas of apparent contradiction in the reassignment of nominally spatial criteria to other functions such as, for example, timbre and examine how the transition may be made between compositional and performance spaces.

In his 1945 study *Phénoménologie de la perception*, the French philosopher Maurice Merleau-Ponty (1908–61) discussed how we become aware of the space in which we find ourselves and how we experience its contents. 'Space', he said, 'is not the setting (real or logical) in which things are arranged but the means whereby the position of things becomes possible' (Merleau-Ponty, 1945/2002: 284). Here, Merleau-Ponty identifies the inseparable and vitally important relationship between object and context: in our case between sound object and the acoustic context in which it is set. With a little imagination, we can extend this initial relationship to include the idea – very much a part of popular music recording practice – that the sonic qualities of the space not only contribute to the sound's position in the stereo image, but also, potentially, to the final timbre of the sound object which results from this interaction.

We experience music in particular places, be they concert halls, living rooms or cars. With the obvious exception of the Walkman (or, more currently, iPod) approach to listening, the acoustic qualities of these places influence what we hear. We may not appreciate their qualities or impact in detail at a conscious level but their influence is nonetheless substantial. A space may be described or to some extent defined by its acoustics and, as Merleau-Ponty observes, once defined we can begin to populate it with sound objects. In the case of the record producer or electroacoustic composer,

these may include only those objects 'fit for purpose' whereas in a more natural setting, they will be objects that are part of the local sound environment. Once populated, the sound space passes into a more specific realm. It is no longer just an undefined space with certain qualities: it has become a *place*, somewhere that we can go to. It is, if you like, the Albert Hall with its legendary echoes, Wembley Arena with its alarming reflection from the rear wall, the Festival Hall with (until recently) its very neutral and 'dead' acoustic. In the following sections, we will consider the impact and application of this basic idea and its derivatives with particular reference to our three nominated subject areas.

### *Classical recording*

The techniques and procedures of classical music recording are well established and, with relatively minor changes, are of long standing. Essentially, most variants confer both temporal and locational identities upon the recorded work in question. Emphasis is placed on the when and the where of the recording, perhaps to subtly reinforce its credibility as a 'real' product made by real creative people rather than the result of some technical sleight of hand.

Critics and writers of sleeve notes typically refer to and comment upon 'the performance' whereas, as we all know, there is very often, in reality, no single complete performance upon which to comment at all, but rather an assemblage of partial ones designed to appear as if contiguous. The temporal identity is therefore often illusory, but nonetheless broadly consensual: we accept what we know to be anomalous if not downright untrue and thereby enter into a conspiracy of sorts, one that is designed to confirm temporal identity and continuity and hence to enhance credibility.

The classical recording engineer has at his or her disposal a set of technical tools no less diverse and capable than those available to those who work in other musical genres. In general, however, and with the obvious exception of editing, these are used to a far lesser extent than is the norm in the recording of pop/rock music or in the technical realisation of electroacoustic works. Most particularly, this applies to the synthesis of spaces by means of artificially generated delays and reverberations, which are used very rarely indeed. Their virtual absence from the armoury of the classical recordist contrasts significantly with their hugely important usage in the other genres, and we may speculate that this is in some way connected with the establishment of the previously mentioned senses of temporal and locational identity and, by implication, credibility. It is far easier and more comfortable to believe that a particular work was recorded at a specific time in a specific place than to be forced to accept that it is the product of innumerable edits and the synthesis of artificial acoustics or, if you prefer, a collage of no particular temporal or locational provenance.

Why should this be so? If we are to be cynical, the issue appears, in part at least,

to be one of credibility and the maintenance of elitist status; but the insistence on these criteria may go further. By establishing and reinforcing the view that a particular recording was made at a particular time and in a particular place, the opportunity is presented for the identification and indeed the celebration of an *event*. That event is, of course, the performance and it is this – be it real or illusory – that is presented for critical appraisal. We are invited by the writers of sleeve notes to acknowledge the achievements – real or created by editing – of the performers and, by our acquiescence, we acknowledge the acceptability of this fiction.

It follows that, if, by means of judicious editing, we can create the temporal illusion of a contiguous performance, there should logically be a locational equivalent whereby we can, to put it crudely, ‘fake the space’ by technological means. For example, there are generally agreed parameters such as reverberation time that may be adjusted to suit chamber or symphonic music. Surely by such means we can create a believable virtual place in which our performance can take place?

Recent technological developments, particularly in respect of acoustic sampling can not only do this, but can also offer the opportunity for a performance to be rendered into the environment of choice, be it the Concertgebouw Hall of Amsterdam, or Carnegie Hall in New York. This most recent approach is dramatic in both implication and technical quality but is nonetheless hardly more than a carefully structured and specific rendition of a technology that has been available for some time. Starting with the advent of electronic sound processing in the 1920s, it has become increasingly possible to create virtual acoustic environments of sufficient credibility to render them acceptable as actual places; yet practitioners of classical recording (almost invariably) choose not to do so. Indeed, they may go further and eschew many other techniques that are readily available. Perhaps the most notable of these is that mainstay of pop/rock recording, the overdub. There is a general reluctance on the part of classical recordists to adopt this approach. Better, it would seem, to be constrained to assemble the finished work by a multiplicity of edits than to record a soloist performing to a previously recorded orchestral part. Again we must ask why.

Here perhaps the answer may be a little more complex. We can of course restate the celebration of the event of performance as a major factor, but is it not possible, indeed probable that the coexistence of all audible components of the work in the same space, at the same time, leads to a subtle and perhaps synergistic interaction with the acoustic environment of the location of recording? Hence, an otherwise identical recording will sound substantially different in different locations and this cannot readily be replicated by the simple expedient of ‘adding some reverb’. Some extra, seemingly intangible and certainly non-duplicable factor has entered the equation.

Technical models may provide some help here: the existence of significant energy at ultrasonic frequencies in the ‘output’ of an orchestra is clearly possible, if not inevitable, and the possible interactions of these very high pitches with each other

and the acoustic properties of the space may create difference tones, which – despite being at quite low energy levels – would fall within the audible spectrum and hence become a part of the heard experience. Clearly, unless all components are present simultaneously, this potentially significant interaction cannot take place.

In choosing a location for classical recording, the issue of optimal acoustics is obviously of utmost importance and, if successfully addressed, can minimise the requirement for additional technical intervention. This leads in turn to a short and potentially ‘clean’ programme chain with the result that not only are the performance aspects of the work optimised but their recording has the potential to be of the highest quality. Compare if you will any number of recordings made in appropriate locations using single or simple microphone systems with those made in the artificial environment of the studio using multitrack technology. The results, we suggest, speak for themselves.<sup>2</sup>

### *Recording in pop and rock*

Turning now to the second of our genres – pop/rock – we find a wholly different perspective. In these styles, there is often an apparently paradoxical situation insofar as a single recording may, on careful analysis, appear to have been created in a multiplicity of locations and, by implication, in an asynchronous fashion. Here, we should perhaps redefine ‘locations’ as ‘environments’ since the ambiances associated with the various components of current recording practice will typically combine synthetic and real acoustic environments. This state of affairs represents a hybrid of a number of approaches, by no means the least significant being the complete artificiality of location within a given space implied by the universal use of the pan pot.

Born largely of technological and economic necessity, the early practices of the rock ‘n’ roll studio were technically simple and carried thereby much of the locational identity found in classical recording. One might cite the characteristic and readily identifiable ‘sounds’ of, for example, Sun Studios<sup>3</sup> in Memphis where Elvis Presley created his early works or Norman Petty’s Clovis Studios in which Buddy Holly<sup>4</sup> worked. Perhaps one of the best-known examples in this context is Brian Wilson’s work on the *Pet Sounds*<sup>5</sup> album. In this, he sought to emulate the sound of his great idol, Phil Spector. Apart from using many of the same musicians, Wilson carefully sought out and worked in the same studios that Spector had used to create his famous ‘Wall of Sound’<sup>6</sup>, believing (largely correctly as it turned out) that their acoustic qualities were the key to the successful reproduction of this style. In this respect at least, Wilson approached his work in much the same way as a classical producer might.

Although Wilson used multitrack recording, he did so in a way that seems somewhat limited by modern standards. Backing tracks were typically mixed live to one or two tracks and the remainder used for multi-layered vocals. The fuller

exploitation of the multitrack recorder, at this stage still to come, had enormous impact upon these approaches. Now there was no requirement for simultaneity of performance at any level. Removed from the need for temporal consistency, the logical extension of this approach was similarly to dispense with any sense of place or at least with any sense of a *single* place. Now each component could be recorded separately at the best time and in the 'best' location. This implied the use of different acoustic spaces – real or simulated – for different instruments, each being chosen for optimal effect. By optimising each component, it was reasoned, the best possible collective product would be an almost inevitable result. Careful examination of many recordings of the late 1960s, '70s and '80s often shows the simultaneous existence of multiple acoustic spaces and this reinforces a perceived lack of most of the qualities deemed desirable in classical practice: the multiplicity of acoustics is paradoxical, and often confusing, and it undermines the credibility of the finished product as a single 'event' that takes place in real time in a single place.

This creates a central issue: the concept of simple locational identity is dismissed to be replaced by a synthesis of diverse components which do not necessarily point, so to speak, in a common direction. By implication, therefore, unlike the consequences of classical recording practice, in this discipline the component parts (voices and instruments) that make up the work do not interact to any substantial extent. Whether or not this is an issue of substance is for debate: in respect of classical practice, as mentioned previously, some argument has been advanced in support of the creation of audible content by acoustic interaction between component instruments. As has been noted, this involves the contentious issue of difference tones – one that is beyond the scope of this chapter.

An early attempt to address the implications of multitrack technology was to adopt the polar opposite to the classical approach – to record each component separately with as much isolation and as little 'natural' acoustic as possible. Command Studios in London took this approach to the ultimate: a series of areas were provided, each of which was as acoustically dead and isolated from the others as could be achieved. The thinking behind this was that acoustics could and should be created and imposed as appropriate and in isolation. The consequences of performing in what was, to all intents and purposes, an anechoic and atemporal environment were, to say the least, not happy ones and this practice was readily discarded.

One response to this unsuccessful approach was epitomised in the practices of the 1970s in which successful bands would opt to record in certain studios in part at least because of the drum (or brass, or string, etc.) sound for which they were particularly known. Studio designers would vie with each other to create spaces with a range of instrument-specific acoustic qualities. In no sense did this design philosophy seek to integrate the sound of the individual components; rather it sought to optimise them on an individual basis with little regard to the quality of the final product as assembled from the (necessarily separated) multitrack tape. One must observe, however, that acoustic considerations were by no means the only factors

in the choice of recording environment. Nonetheless, indulgence invaded acoustic design too for a time: for example, expensive Hawaiian lava rock enjoyed a brief popularity as the wall lining of choice for drum booths in the practice of at least one highly successful designer of the period.<sup>7</sup>

The accepted practice that has finally emerged for this genre is a hybrid of natural acoustics – most notably of conspicuously live drum booths – and artificially (that is to say digitally) generated environments. Oddly, some presets of digital reverberation units (for example, the Lexicon ‘warm room’) have themselves acquired the acoustically iconic status of actual venues: perhaps a nod in the direction of the classical tradition. The perceived need for a sense of place may, perhaps, be harder to dismiss or at least more tenacious than we might expect.

### *Electroacoustic realisation*

The technologies available to the pioneers of electroacoustic composition and realisation were conspicuously poor in respect of their ability to synthesise spaces and places as readily as they could create what we might call ‘tonalities.’<sup>8</sup> This situation has changed dramatically in recent times and yet, its availability notwithstanding, the use of synthetic spaces is largely rejected by practitioners in this genre.

The electroacoustic practitioner, we suggest, eschews (in this respect at least) the concept of a single performance event and, by focussing to an ultimate extent upon the qualities of components, removes them from any existence in either time or space save for the duration of specific events and their possible diffusion to components of a specialised sound system. Sounds may be placed in specific positions in space for compositional purposes but, with rare exceptions, there is no attempt to create, by means of technological intervention, a believable place in the sense that the classical recording practitioner might wish to create the simulation or representation of a particular concert hall. By implication, the electroacoustic composer in general does not seek to create the sense of a performance, or indeed of an actual event or occasion.

Component sounds are typically created and assembled in accordance with compositional intentions. These rarely include the creation of a single event, located unambiguously in a single time and place: indeed the inclusion of information that could indicate, describe or identify a specific location is highly unusual. The placing of sounds in spatial locations is, however, a common practice, which is further supported by the use of sound diffusion as a presentation technique. This relies upon the qualities of the place in which the presentation takes place and, with some exceptions, does not imply the encoding of place identity within the programme material.

There are, of course, important exceptions to this approach. Perhaps the best known is Jonathan Harvey’s 1980 work *Mortuos plango, vivos voco* in which the audience is invited to consider themselves inside a giant bell. The other main

component of the piece is a boy's voice, which flies around within this space (itself established by processed bell sounds) in dramatic fashion. Here Harvey defines both location and its qualities very precisely indeed. In general, however, where such techniques as reverberation are used by electroacoustic practitioners, they function as timbral modifiers rather than as indicators or descriptors for acoustic environments. There is perhaps an unconscious intent to reinforce the synthetic and often analytical nature of much electroacoustic music by presenting it outside the standard issues of time, space and location. Nevertheless, the acoustic characteristics of real or virtual spaces and locations are exploited by various electroacoustic composers to create musical signification.

### *Location and place in electroacoustic music*

The recording medium and the electroacoustic studio are inextricably linked. From the earliest examples of *musique concrète*, techniques of recording had consequences, not only for the sounds that composers could use but also for the implied spatial settings of such sounds. The studio and recorded sounds encouraged an extensive reappraisal of many traditional musical concepts. Practices of electroacoustic composers increasingly demanded that subject areas such as 'expression', 'performance' and the 'instrument' be examined and perhaps even clarified in the light of these new conditions. Space and location play particularly important roles in such fundamental re-evaluations of music. Theoreticians and philosophers have always used spatial metaphors when discussing music: electroacoustic musicians can participate in, and contribute to this discourse. If we examine instrumental music there is no shortage of examples of explicitly spatial references. The antiphonal music of Giovanni Gabrieli in St Mark's Cathedral in Venice is frequently cited for its use of specific locations from which sounds emerged. Many other composers also used spatial distribution in their compositions. Sounds coming from various directions and heights can be heard in Hector Berlioz's *Grande Messe des Morts* from 1837 and its theatrical (in the best sense of the word) performance in the church of les Invalides – if ever there was a site-specific work it is surely this one. Moreover, Gustav Mahler often required off-stage musicians to play in his symphonies to create a sense of 'distance' ('wie aus der Ferne' is indicated in the score). Hearing music being played literally 'at a distance' in a concert hall by an invisible group of musicians is relatively commonplace today. It is nevertheless an impressive and often moving effect and demonstrates unequivocally what all musicians know: distant sounds are not just quieter, but their spectral constitution is qualitatively different as high frequency components are absorbed by the air. In these works, if sounds are not perceived as coming from different directions or distances, the music is undeniably impoverished. An increasing sensitivity to space and location is evident in post-war composers – a fact doubtless stimulated by studio experiences. Composers such as Luciano Berio, Iannis Xenakis and Henry Brant

composed works that demand the placing of instrumentalists in precise locations on stage or amongst the audience. With the increased importance of sound diffusion in electroacoustic 'performance', issues of spatial distribution are now central to many composers' musical thinking.

Electroacoustic musicians might benefit from an increased awareness of these practices which can be deliberately appropriated to form part of their own repository of compositional strategies. One electroacoustic genre is particularly concerned with the acoustic characteristics of specific locations. 'Soundscape' compositions frequently rely on the recognition of real-world sound events. Furthermore, a general sense of the actual location of a sound recording can be important to the composition's network of meanings. Many composers who use sounds in this way are actively involved in the World Forum for Acoustic Ecology which originated in the World Soundscape Project in the early 1970s. Many approaches can be subsumed within the WFAE, but a common feature is the composer's desire to promote a sensitivity to our sound environment via artworks such as compositions and sound installations.<sup>9</sup> In addition, we can often identify an archival agenda as these composers alert us to the fact that certain sounds are disappearing and their use in compositions does at least preserve them in a more permanent form. This is exemplified by one of the WFAE's founders, R. Murray Schafer, and his projects such as the *Vancouver Soundscape* (1973) and the *Five Village Soundscapes* (1975). In both these cases the actual provenance of the recorded sounds is important. Some will be designated 'soundmarks', a term 'derived from landmark and refer[ring] to a community sound which is unique or possesses qualities which make it specially regarded or noticed by the people in that community' (Schafer, 1977: 10). Thus, the sound's origin, its specific location with particular, perhaps even unique characteristics is emphasised and in so doing a network of cultural and social relationships is implied.

Two electroacoustic composers whose work can be examined in reference to such practices are Thomas Gerwin (1955–) and Luc Ferrari (1929–2005). Both composers have produced works in which acoustic settings contribute to how the piece is perceived. Examples of the importance of specific locations can be cited in Gerwin's CD *Karlsruhe: Klangbilder einer Stadt*. This collection of ten 'acoustic portraits'<sup>10</sup> was initially used as part of an installation called *Klangstatt*, and only subsequently released on CD. Such interdisciplinary practices are common in the electroacoustic medium and often blur the distinction between the roles of composer and sound artist. Gerwin collected the sounds for these works from August 1994 to March 1995. The quality of the recordings confirms the scrupulous care with which Gerwin approached this task. There is no intervention in the recordings other than editing. All other characteristics remain faithful to the original place and time of recording.

The first piece in the collection is entitled 'Hauptbahnhof und Zoo' (Main Station and Zoo) and the listener is taken on a short 'sound walk' from the confines of the main railway station in Karlsruhe to the nearby zoological gardens. There is, of

course, a certain amount of trust involved. Can we be sure that all the sounds do indeed come from the locations specified? Gerwin assures us this is so and we have no reason to doubt him. There is no information regarding the times of recording – Gerwin might have visited the station and zoo on different days and selected the most appropriate recording. All these decisions remain within the control of the composer. Nevertheless, he must also work with ‘given’ material which remains a fixed aspect of the composition. These are the cavernous environments of the station concourse and the platforms with the resonant sounds of trains, trolleys rattling, announcements and people conversing. Such sounds are replaced briefly with the more open, non-reflective ambience of urban streets. Traffic and other urban sounds are supplanted by animal cries in the distance which gradually become louder as we approach the zoo. Then, we are taken into the zoo where human interaction intermingles with what are clearly the sounds of animals. Once again, some places in the zoo are interior others exterior, but the different stages of the ‘journey’ are never in doubt. Gerwin does not mix, for example, trains with elephants to encourage the listeners’ imagination of unreal or impossible worlds. Instead, we are taken around specific environments, which, even if we do not know them, communicate by the way the composer arranges different acoustic spaces. These are explicit examples of sounds occurring in certain places and the spatial cues by which they can be located are of utmost importance. Gerwin’s work alerts us to the fact that we should never underestimate the remarkable sensitivity of humans to such aurally perceptible details. Certain structural features are apparent. The resonant characteristics of the station are repeated in the zoo section as we enter a building with similar acoustic features. The aforementioned progression from ‘outside’ to ‘inside’ (and vice versa) is also repeated. By contrast, the sounds of the busy social interaction within a station where people generally stay only as long as required and are always waiting – indeed wanting – to leave are replaced by those of the zoo where people choose to linger for extended periods of time. This work by Gerwin, therefore, encourages us to move from one real location to another purely by the use of locational sound cues. In keeping with the sense of progression between individual locations, most scenes follow in sequence with only discrete mixing.

Another piece in the collection is called ‘Universität’ (University). ‘Universität’ begins with old bicycles arriving, their brakes squeaking. Gerwin’s subsequent sounds depict the various parts of the institution of a university in subtle ways. However, he does not resort to a banal recording of a lecture or interchanges in a seminar. Rather, the sounds relate to human activities which can only be construed as intellectual within the context of the location from which the sounds originate. The air conditioning whines, we hear the action of writing (the text, of course, can never be known to us), a dot matrix printer spins out more unknown texts in the dead, flat acoustic space of offices and libraries. In the social space of (perhaps) the canteen we can hear human voices, though if we listen carefully the human voice is often present in the background – the ‘human’ is never eliminated from this

'acoustic portrait'. In this way, Gerwin's sound world conjures up the atmosphere of quiet thought and intellectual activity which is emphasised rather than diminished by the suppression of human speech. In this work, the continuity of space and, by implication, time is presented in a clear, linear narrative.

By contrast with Gerwin's work, Ferrari's *Music Promenade 1* (1967–9) consists of sounds recorded in various locations from 1964 to 1967 followed by another two years of compositional activity.<sup>11</sup> If Gerwin's use of locations emphasises the local and, to the residents of Karlsruhe at least, the familiar, then Ferrari draws on a much broader range of sounds and their acoustic qualities. The original intention was to have different materials recorded on four tapes replayed simultaneously on four tape-recorders. The version on CD is one realisation. Unlike Gerwin, Ferrari frequently disrupts recordings of certain locations by suddenly interposing bursts of sounds from other sources. The effect is dreamlike and occasionally unsettling as different times and places are folded into each other. Nevertheless, in one section Ferrari also contrasts 'indoor' sounds (the sounds of traditional instruments, creaking doors and other similar noises) with 'outdoor' sounds (a military parade) thereby creating not only a witty, playful juxtaposition of acoustic qualities but positing the concept that the characteristics of spaces are as important (in this case perhaps more important) than the sounds which were recorded within those spaces. As listeners, we hear the 'progression' in Ferrari's composition from one acoustic space to another. The close proximity of the instruments is imposed in a surrealistic manner on the broad acoustic spaces within which the military parade takes place. There is an element of dramatic conflict as spatial contrasts are emphasised by placing the irregular rhythms and atonal melodic vocabulary of the former with the all-too-regular military rhythms of the latter. The different acoustic spaces support the sense of disruption and musical anarchy: just as the soldiers begin to establish their marching patterns it is subverted by the avant-garde musicians.

These contrasts comprise the first half of the work on CD. Thereafter, we hear several dramatic productions in various languages and the emphasis is on the human voice even though interruptions occur as before. We are spectators to the intensity of the dramatic voice and the section concludes with fading repetitions of 'Sleep no more' (*Macbeth*, Act 2). Thus, this work by Ferrari also makes use of not only recognisable sounds but their original location of recording. The perceived acoustic settings are exploited to create contrast or continuity.

In addition to the interplay arising from clearly recognisable sounds and their possible settings, the electroacoustic musician must also consider the relationship between the composer's space and the venue in which the composition will be presented. This is rarely an issue for pop/rock musicians as recordings that display sophisticated use of different discrete acoustic spaces are not generally played for communal listening in a large concert hall – the 'live' concert serves that purpose. However, unless a work is intended solely for replay via headphones, the concert venue and the playback system will have an effect on a 'performance' of a

composition. If the composer has made use of various types of acoustic setting, the role of sound diffusion will be crucial. Whether a work is recorded in a stereo or in a multi-channel format, the way the sounds are distributed in the venue will reproduce (or not) the original recordings. The spaces created so carefully by the composer – the ‘composer’s space’ – are now placed within the space of the concert hall – the ‘listener’s space’. The way these spaces interact can be consonant or dissonant and we realise that sounds in space, like words in a language, begin to assert themselves in ways we might not be able to predict. The composer Denis Smalley has written about these issues and we would recommend the interested reader to consult his text on the ‘indicative field of space’ (Smalley, 1992).

## *Conclusion*

We have argued that different genres approach the issue of acoustic space and, by implication, the creation of place, of a sense of ‘whereness’, in very different ways. For the classical tradition, the intention is to create a believable simulation of a real-time performance, one that is located in a single physical location at a specific time. It is, by implication, an event that is of significance and that is to be celebrated.

The pop/rock sensibility disregards this approach, preferring the optimisation of component parts, arguably (the cynic might suggest) in the pursuit of ever-increasing spectacle. Even so, an element of performance and its inherent impressiveness remains and this at least implies (if not demands) a degree of continuity and consistency. The single ‘celebratable’ event is perhaps implied but its virtuality is at least partially acknowledged. The focus is upon spectacle (which we might uncharitably describe as ‘sound and fury’) and this is, in part, established and reinforced by dramatic – not to say melodramatic – acoustic contrasts and paradoxes.

By contrast, electroacoustic composers seem, in most cases, to retain a remarkable degree of detachment from these considerations. Where classical recording practitioners seek to reinforce and exploit conventional perceptions of time, space and place, and rock and pop engineers and producers manipulate these perceptions to amplify scale and enhance spectacle, electroacoustic composers frequently adopt an almost ascetic approach such that a sound object is to be appreciated as a pure entity, often divorced from any relationship. Yet, we find within this genre a whole spectrum of degrees of site-specificity ranging from what we might call ‘pure’ soundscape pieces to those which invoke a creative use of space such as in Ferrari’s work. There is perhaps a case to be made for the creation of another distinct genre for such works since, in some respects at least, they seem informed by a quite different sensibility from the electroacoustic ‘mainstream’.

Furthermore, the issue of electroacoustic performance – which we take to imply the practice of diffusion – by virtue of occurring at a specific time and in a specific place implies a degree of commonality with the classical approach, which leads, as we have suggested, to a celebratable event. Given that all such events, by their nature,

acquire much of their experiential qualities from the particular place in which they happen, we may find ourselves in paradoxical spaces wherein, for example, a highly reverberant sound may be experienced in a relatively 'dead' environment and vice versa. We may need to ask whether the acoustic of the recording or of the space in which it is heard should be accorded precedence or whether, in permitting such contradictions, we may be tacitly agreeing that a property that we normally associate with space can be transformed into one of timbre and hence become a compositional tool in a quite conventional sense.

We must ask, therefore, how much importance should be accorded to objective 'accuracy' or whether there are simply differences that respond to what are perceived as genre-specific needs. There may be a case to be made for believability: human nature likes the idea that whatever it is that we hear was created at a particular time and in a particular place. This is, perhaps, something that our logical sensibilities demand and something that classical recording practice has grasped with some success. That electroacoustic practice has not done so – or at least not in the 'conventional' way – may possibly suggest that this is one reason for its continuing marginalisation from the mainstream. That rock and pop have embraced the exploitation of acoustic space with almost excessive enthusiasm may be seen as evidence of its reliance upon spectacular qualities and indeed its ephemerality.

It seems clear that both the qualities of space as evidenced by acoustic dimensions and the way in which these feed into the creation of a sense of a real actual physical place or location are highly significant in how we respond to composed, performed and realised works. There is significant diversity in approach and this diversity appears, to a large extent, to be specific to each genre. There is, however, a transcendent consideration: that of the human need to believe in a specific space, a particular place.

Another French philosopher, Gaston Bachelard (1884–1962), wrote of how accurately one must hear in order to hear the geometry of echoes in an old house (Bachelard, 1958/1994: 60–1). Bachelard wrote of domestic spaces whereas we have discussed those of recorded musical styles; but it is surely no surprise that it is these very echoes, upon which our sense of both space and place is founded, that contribute so much to the validation of our listening experience.

## Notes

- 1 A good example of this may be found in 'Dreaming while you sleep' from the 1991 album *We Can't Dance* by Genesis. Virtually every sound component is placed in its own acoustic environment or is accompanied by a different time-based process (e.g. slapback echo), which suggests a distinct acoustic ambience.
- 2 Excellent examples of the successful application of a single microphone approach may be found in a number of Nimbus recordings that have used the Calrec Soundfield microphone system. See, for instance Swierczewski (1992). A good example of the use of

- two pairs of stereo microphones may be found in Zinman (1992).
- 3 See, for example, *The Legendary Sun Records Story* (2000).
  - 4 See, for example, Holly (2008).
  - 5 See The Beach Boys (1990).
  - 6 Excellent examples of this can be found on Spector (1991).
  - 7 See, in particular, the design work of Tom Hidley, founder of Westlake (and later Eastlake) Audio.
  - 8 A term coined by composers Louis and Bebe Barron (best known for their work on the soundtrack of the 1956 film *Forbidden Planet*) to distinguish their work from 'conventional' approaches to musical composition. The term is used here to refer to considerations of timbre and pitch, two aspects of electroacoustic sound that are relatively easy to control and modify.
  - 9 A variety of different approaches can be read in Järvilleuoma and Wagstaff (2002), LaBelle (2006), Truax (2001).
  - 10 There are twelve tracks on the CD: tracks 11 and 12 are disregarded for the purposes of the present discussion. Track 11, 'Stimmfächer', consists of the polyphonic layering of voices and track 12, 'Karlsruh'-musik', starts with a radio presenter referring to Gerwin's activities in recording sounds in Karlsruhe, and then continues with a piece consisting of sounds from Karlsruhe in general. In addition, track 10, 'Durlacher Turmberg', is exceptional in that it reprises many of the sounds used in the previous nine tracks.
  - 11 For more information on Ferrari's works, see Castanet et al. (2001) and Caux (2002).

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