

Dilemmas, Dichotomies and Definitions: acousmatic music and its precarious situation in the arts

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Abstract

For just about everybody but its practitioners, acousmatic music seems to have an identity crisis. Is it, for example, 'music' at all? In their heart of hearts, many professional musicians do not really think so. Yet could we not argue that, as music is an art form based on sound, then acousmatic music – which exists only *as* sound, with no score to be interpreted by performers – must be music in its purest form?

Perhaps the problem is simply one of language. In its normal English usage, the adjective 'acousmatic' requires a noun. As that noun is normally 'music', we run the risk of offending both those with a more traditional view of what constitutes music, and practitioners who may use similar tools and techniques, but whose work is more readily situated in the 'art world'. Most 'sound art' (to use the increasingly popular term) does not have a musical intent and it is certainly not all acousmatic, any more than most music is.

But this is merely the first of many problems surrounding acousmatics (to use the more neutral term found in anglophone Quebec, presumably taken from the French use of *l'acousmatique* as a noun) – problems which make the field a quagmire of confusing terminology and consequent misunderstanding. One might be tempted to argue that such things are unimportant as they are only labels – but (as we all know to our cost from searching for a particular album in the wrong section of the Virgin Megastore, or trying to work out what the local council has decided to call the refuse collection service this week so that we can look them up in the phone book), labels are important because they grant or deny access to information and understanding.

This paper begins by re-examining some of the terminology of acousmatic music, with the aim of clarifying some of the underlying thinking and principles associated with it, and so revealing and reiterating its significance. Of fundamental importance in this discussion is the whole question of sound material, its nature and how it can be manipulated and transformed directly into a sounding artwork, without the mediation of notation or performers. Inevitably, techniques and tools need to be discussed, along with the delicate question of the relationship between art/music and technology (unfortunately, they are often confused, especially within education). Traditional approaches to music will not escape scrutiny, nor will matters pertaining to performance (and performers!), perception and the distinctions between hearing and listening. Without venturing too far into metaphysics, the discussion also engages with matters of time (one of music's dominant structuring strategies) and space (one of art's), for it is here that boundaries really are being blurred. Finally, the current and potential relationships between acousmatic music and other art forms are explored, with particular emphasis on collaboration, hybridisation and the issue of whether digital representation of material (visual, aural or of any other persuasion) renders all material essentially 'the same'. In the course of addressing these issues, I hope to shed light on a question which has puzzled me for many years: why is acousmatic music so frequently dismissed (particularly, though probably not exclusively, by the 'music world') as being 'irrelevant', 'old hat' and, most perplexing of all, 'academic'?

Is anybody listening?

During 30 years' involvement with acousmatic music, one of the most significant things I have learned about it is that, for most people, it seems to have an identity crisis. Although practitioners and aficionados have no difficulty in grasping what it is, understand its concerns, techniques and rationales, and can situate it within practice in 'the arts', it seems to have a 'bad press' (well, in fact, virtually no press!) when it comes to attracting the public to an acousmatic event in any given location (except, perhaps, Paris or Montreal). If a promoter is offered a concert of acousmatic music, or if an arts funding body is asked to finance such an event, it seems to be a case of quizzical looks all round: 'acousmatic music – what's that?' In one sense, one might suppose it doesn't really matter. There are enough people worldwide who do want to listen to acousmatic music to make it worthwhile for composers to continue to create it. My involvement with people who are exposed (often by accident!) to this medium, however, suggests to me that potential local audiences are much bigger than we (and promoters and funders) might suppose. So, if there is a problem 'out there', then it is probably in our interests to identify what it is.

There is another issue which is less 'out there' than the question of public profile, however, which is linked to the perception of acousmatic music, and this is even more confusing. For reasons I have never really been able to fathom, there is a popular myth that acousmatic music is 'academic' (even this conference, in listing the subject areas of papers, included the phrase 'academic acousmatic music'). This implies to me that one can assume that there is, automatically, an audience in 'the academy'. I have not found this to be so and would take issue with attempts to make 'academic' and 'acousmatic' synonymous. The linking of the two words seems to play on the pejorative implications of 'academic' – hidebound by tradition, conservative, stagnant, ossified, governed by rules, formulaic, elitist, etc. I do not want to become embroiled in a wholesale defence of academia, but for reasons which I hope will become clear, I have to say that I do not recognise acousmatic music as having any of these characteristics. If the linking of the words is merely because, at one stage in its history, it required resources beyond the financial means of individual composers, then I can at least understand the point historically. This situation led to the nurturing of acousmatic music within British universities and by radio stations in mainland Europe. However, those days are long gone – and we don't talk about 'radio station acousmatic music'!

It is evident that any attempt to find the reasons for acousmatic music's relative lack of profile is fraught with difficulties. Acousmatic music is sometimes barely recognised as 'music' at all, even among trained musicians, including several whose attitude is distinctly hostile. I might go further and point out that this latter group includes many academics in the discipline of music. The situation is further complicated by the fact that, although 'acousmatic music' may well be shunned by 'musicians', it may, ironically, have many characteristics which would be recognised by practitioners and aficionados from other fields – let's say, for the sake of argument, the 'art world'. The problem (well, a problem for me at least) is that they probably would not call it music either.

As you have probably guessed by now, I am a musician; worse, I am a composer; worse still, I am a composer of acousmatic music. I am going to be bold and presume that the reason I am standing here today is precisely because I am a composer of acousmatic music and not because I also happen to be an academic. So this accidental academic is going to play the role of a keynote speaker wearing his true colours as an unashamed composer of acousmatic music, and assume the right to be forthright and outspoken (or blunt and bigoted, if you prefer) about my theme. I shall be unapologetically critical of some approaches and practices whilst being fiercely

protective and partisan about others, paying little heed to what might be thought of as ‘normal academic balance’. I shall state the obvious, on the assumption that some of the underlying thinking concerning acousmatic music may not be familiar to everyone (or may even have been forgotten by some!). I shall present acousmatic music (which, at under 60 years old, I believe still qualifies as a ‘young’ art), as a striking new trend (and the lack of awareness of it in many quarters suggests that it is still ‘news’ and that its impact is certainly not yet exhausted). I shall also challenge some accepted positions and I fully expect that some of what I say may be construed as provocative – and it may even rustle a few feathers.

Sorry – could you repeat that?

The time has come to return to our initial starting point – the idea that acousmatic music seems to have an identity crisis. Why should this be so and what are the root causes? As I have said, among those who have active experience of this field, there is no such crisis. So is the problem simply that insufficient numbers of people know about acousmatic music (and, if so, what is the reason)? Or is there something fundamentally ‘wrong’ with acousmatic music which would explain its low public profile (and, if so, what is this fatal flaw)? And beyond these questions lurks another: what (if anything) should be done to rectify the situation?

Of course, it is entirely possible that the problem is simply one of language: people are not familiar with ‘acousmatic music’ because they are not familiar with the label. This explanation has some merit, though its corollary suggests that they may still have some knowledge of the actual music – an optimistic view, I think! People may well have heard music from or related to this field, but it is likely that this will have been in other contexts – in a film, perhaps, or with contemporary dance. However, it remains the case that many of the dilemmas and dichotomies surrounding our primary question may be caused by confusion over terminology, so it is to this that we must now turn our attention.

Definitions

- **Acousmatic**

Any attempt at getting to the bottom of the perceived problem of acousmatic music must start with a definition of ‘acousmatic’ itself. The word derives from the practice of disciples of Pythagoras who listened to the master lecture from behind a curtain, so that they could focus aurally on the content of his lecture without visual distractions. Thus, in its most basic form, the adjective ‘acousmatic’ describes the reception of aural information where the source or cause of the sound is not seen. It came into use in a musical context in relation to the *musique concrète* of Pierre Schaeffer and has been emphasised by composers such as François Bayle and Francis Dhomont. In practical terms, we can say that the term refers to music specifically composed and designed to be heard over loudspeakers (though the loudspeakers are not the things which caused the sounds in the first place). Typically, such music can incorporate sound material and processes highly unlikely to be capable of being physically present at the time of reception. Of course, a listening *situation* could also be ‘acousmatic’, even when what is actually *heard* was not originally created for that kind of reception.

As well as an acousmatic listening situation, therefore, acousmatic music also demonstrates an acousmatic *intent* on the part of the composer. However, certain shared approaches and preoccupations should not be confused with the frequently voiced assertion that acousmatic music is a ‘style’. In my view it is not, as this would be equivalent to saying that the term ‘piano music’ defines a musical style; it does not, being merely a description of the technical means, not the musical ends, which in both ‘piano music’ and ‘acousmatic music’ are very varied.

Acousmatic music grows out of Schaeffer's *musique concrète* and has inherited many of its concerns. It admits any sound as potential compositional material, it frequently refers to acoustic phenomena and situations from everyday life and, most fundamentally of all, it relies on *perceptual* realities rather than *conceptual* speculation to unlock the potential for musical discourse and musical structure from the inherent properties of the sound objects themselves – and the arbiter of this process is the ear. Because of this, it is unnecessary to have a visual stimulus connected to what is heard – in fact, it is positively detrimental to be encumbered by the visual sense for, without it, the listener's imagination is liberated from the constraints of the physical presence of the sound-producing body. As Francis Dhomont puts it, echoing Schaeffer, this musical approach thus starts from:

'... the concrete (pure sound matter) and proceeds towards the abstract (musical structures) – hence the name *musique concrète* – in reverse of what takes place in instrumental writing, where one starts with concepts (abstract) and ends with a performance (concrete)' [Dhomont, 1995; 1996].

- ***Musique concrète***

Musique concrète, then, is so called because it starts from 'concrete' (i.e. observable) qualities in sound material itself, from which structural implications are extrapolated and links to other sound materials made. What finally emerges, as Dhomont has pointed out, is an 'abstract' musical discourse (in the sense that all musical discourse can be deemed to have an abstract dimension, given that music is essentially ephemeral and truly exists only at the time of being heard) which has been 'abstracted' from the concrete starting points. Simon Emmerson discusses the distinction between abstract and abstracted materials [Emmerson, 1986] (though it is worth noting that French makes a less clear distinction between the two English terms, the word *abstrait* serving as both adjective and past participle). In the early days, the sound material in question was *recorded* and this has led to a tendency (especially in English) to equate *musique concrète* with 'music made using recordings of real sounds', which is only a partial truth. As well as its starting point in concrete (i.e. existing) material, a further aspect of what is 'concrete' about *musique concrète* is the *method* of working: it is 'hands-on', with immediate aural feedback. Its composition is a partnership between composer and material, with each interrogating the other, posing problems and offering possible solutions. The success or failure of sound material and its transformations in specific musical contexts is assessed by ear, by the composer as first listener (but also representative of other listeners with similar ear/brain mechanisms – i.e. other human beings). Through this process of interaction between equal parties a final structure emerges.

- ***Elektronische Musik***

I would argue that, in contrast to *musique concrète*, which is primarily concerned with *qualities* of sound material, much music has been, and continues to be, more concerned with *quantities*. This is to some extent inevitable when, as Dhomont says, 'one starts with concepts' – in order to flesh out concepts in sound, one has to be able to 'measure' how much to put where and for how long. Intervals between pitches and the durational structure of rhythm are quantitative devices, capable of precise differentiation through musical notation; other parameters, like dynamics, though less precise, are also amenable to structuring in similar ways. The Cologne school of *elektronische Musik* was primarily driven by serialism (which was, in turn, a continuation of what Trevor Wishart calls lattice-based thinking [Wishart, 1985; 1996]), and exploited the ability of the electronic medium to deliver precise values of serialised dynamic and durational

structure (which by the late 50s were beginning to exceed the abilities of even the most dedicated performers). The focus on the use of electronically generated signals such as sine tones was a result of the theoretical possibility of also subjecting the parameter of timbre to serial organisation (something impossible with acoustic instruments) and also afforded the history books a handy contrast with *musique concrète*. Yet another parameter for serial control, spatial location, emerged with the playback of discrete audio tracks on the recording machines over separate loudspeakers.

- **Electroacoustic music**

This problematic term is an attempt to cover over the rift between the two schools of *musique concrète* and *elektronische Musik*. According to the history books, the antagonism between the two began to be eroded with the incorporation of sound recordings in several of Stockhausen's 'tape' pieces, from *Gesang der Jünglinge* (1956) onwards, and the installation of synthesis modules in the studios of the Groupe de Recherches Musicales in Paris (into which Schaeffer's original research group evolved), which feature strongly in major works of Bayle, Parmegiani and others. Despite this convenient simplification, however, the vestiges of the differences in thinking between the two schools still continue to trouble the field today, with much 'computer music' (to use yet another label) continuing the structure-dominated thinking of *elektronische Musik* and the work of Schaeffer and his followers struggling for recognition outside the French-speaking world.

And so we return to my label of choice. In acousmatic music, as in *musique concrète*, musical structure evolves from characteristics inherent in the specific material, not conceptualised before the sonic event. This emphasis on perception, on qualitative judgements by the composer as first listener, rather than on the quantitative and conceptual concerns of serialism (and *elektronische Musik*), an holistic rather than parametric approach, displays the phenomenological roots of *musique concrète*. It is organic rather than architectonic, presenting intrinsic qualities rather than a set of imposed extrinsic values.

- **L'objet sonore**

Key to an understanding of the entire field and underpinning the whole existence of any of this music is the rather important matter of sound recording – the single most significant development in and for music during the twentieth century (far more important than abandoning tonality, for instance). Sound recording and storage enabled immediate access to sound material, for repeated aural scrutiny, and this in turn revealed that 'the same' notated events do not result in identical sonic events, even though notation implies that they do. Let me expand on this for a moment. Record a violinist playing a notated musical event twice and listen carefully. The two recordings will have differing characteristics of attack, tone, intonation, nuance, dynamic, length, etc. The two events are quite distinct, so we might conclude that their notated equivalence, the very basis of instrumental music (and of its analysis!), is no longer tenable. This led Schaeffer to his formulation of the notion of the *objet sonore* (frequently translated into English as 'sound object', though possibly better rendered by the term 'sonic object') – a unique gestalt stored on a fixed (recording/storage) medium, with observable qualities and characteristics in terms of time-varying spectral/frequency, fluctuating amplitude, erratic density and spatial behaviour content, but which is not to be (and, in fact cannot easily be) reduced to repeatable static values in the parameters of pitch, duration, amplitude, etc) – the very basis of serialism.

- **Reduced listening**

Another Schaefferian term and a further extension of his theories was the notion of *écoute réduite* (reduced listening) – the importance of detaching the sound as heard (the sonic object) from the sound-producing source, the physical object which generated the sound. In other words, it is important to hear the violin events we just discussed in terms of their specific, individual and unique sonic qualities (sound *as* sound) and not in terms of their ‘violin-ness’ (sound as representation of source). Schaeffer was critical of his own early works, such as the *Etude aux chemins de fer* (1948), precisely because the sound material was too recognisable, too reminiscent of the physical objects which produced them, and he felt that this ‘referential’ quality interfered with a truly ‘musical’ appreciation of the material. Nevertheless, from Luc Ferrari onward, there was a compositional exploitation of the fact that there can be signification (i.e. meaning) resulting from our recognition of the source/cause of sound material. The fact is (if I may be so bold as to say so) that Schaeffer missed a trick here – it seems to me and to many, many composers of acousmatic music to this day, that the intermingling of abstract(ed) musical structures and source sounds which can suddenly reveal themselves in their unashamed naturalness is one of the most powerful expressive attributes of the medium.

New Sound Worlds

I mentioned sound recording and storage as being crucial, as the technology has implications well beyond the mere documentation and re-creation of existing performances (its original ‘design brief’). It offers entirely new possibilities which were simply not available before; and this can only have the most profound impact on creativity itself.

It is worth reminding ourselves of what these new possibilities offered by sound storage were and how they enhanced – and, indeed, changed – music in the second half of the last century. Much of what I am about to say here refers to discoveries made by Schaeffer and his fellow-researchers at what became the Groupe de Recherches Musicales in Paris. I make no apologies for this, for my own experience echoed theirs (though with less rigour!). Moreover, the importance of the early years in Paris has left a legacy of thinking with which I and many other composers continue to engage, but which has, strangely, not travelled as widely as one might have expected, despite its significance.

We have already discussed the often forgotten aspect of sound storage – that it gives us immediate access to sound and to infinite repetitions. These features enable us to interact with sound material in an almost physical way, sculpting it and working directly *with sound* to create music without having to go via the symbolic, silent, abstract medium of notation.

Perhaps even more obviously, sound storage meant that *any* sound that could be captured was potentially available for inclusion in ‘music’; composers were no longer restricted to sound material traditionally defined as ‘musical’. The expansion of sound material made available to music through recording thus extends to what we might call ‘everyday’ sounds: environmental and anecdotal sound materials, which are capable of evoking specific times and places in the personal histories of individual listeners. This area is a strong characteristic of early *musique concrète* and of acousmatic music, but it must be acknowledged that it is probably a source of immense irritation for many musicians of a ‘traditional’ bent and might explain the antagonism towards the medium from that quarter. For me, though, one of the exciting things about the acousmatic domain is that the poetic of ‘music’ is enlarged by being able to include, for example, the sound of a cuckoo, whilst Beethoven had to be content with imitating one with a clarinet!

Sound Transformation

Another major impact of sound storage on the domain of music is that it facilitates the manipulation, modification and transformation of sound. The basic principle is that changing the playback conditions or altering the data prior to playback changes the sound. What was particularly interesting for music, especially in the early days of the electroacoustic medium, was that stored sound could be manipulated beyond the physical constraints which limited what was possible in the ‘real world’ or in ‘real time’ and this is arguably still true today.

The early techniques of sound transformation were somewhat limited, being restricted to simple operations like speed change (transposition), reverse direction, looping (by scratching across the wall separating the grooves on a record in the days before analogue tape), and so on. More sophisticated and elaborate processes developed after the shift to magnetic tape and through the impact of electronic circuitry, and soon there were many means of modifying and transforming sound, including filtering and equalisation in the frequency domain, reverberation, delay and echo effects in the time domain, and compression, expansion and limiting in the amplitude domain. With the advent of analogue synthesisers, other techniques became available, such as ring modulation, envelope shaping and the whole range of voltage control options – all of which could also be applied to recorded ‘real world’ sounds. A quantum leap forward followed the application of digital technology to sound and it is now possible to perform operations on the microscopic level of sound material’s internal structure – phase vocoding, time-stretching, brassage, convolution, cross-filtering, freezing, frequency warping, frequency shifting, granulation, etc, etc – which were all but unthinkable at the start of my career. In fact, I can now perform all of these things on this laptop for a fraction of the price of even the most basic studio two decades ago – and I can carry it around with me!

Of course, it is all too easy to get carried away with the potential of the tools themselves and lose sight of the original goal – to make music. I deliberately omitted one of the most musically profound sound transformations from my list, but I want to mention it now because it is at once the most simple and the most drastic thing one can do to a sound. I am talking about *cutting* the sound. The interruption of normal expectations regarding the flow of time is probably the most extreme characteristic of music and it seems to be perfectly encapsulated in the possibility of cutting a sound so that its onset or its continuation are removed. This brings me to a crucial area of discussion: time itself. But before I launch into that I thought it might be a good idea to give everyone a bit of a rest from the sound of my voice and play some music. Actually what I want to do is to draw your attention to some of the things I have been discussing in theoretical terms at work in practice by playing some examples from my piece *Unsound Objects*, which you will have the opportunity to hear in its 13 minute entirety at the concert this lunchtime.

Yes, but is it ‘music’?

So now we come to something which brings this paper closer to the general theme of this conference. All my remarks thus far have referred to ‘acousmatic *music*’. Here, then, is the next problem for today: the m-word.

I do not actually want to get too embroiled in this question, because with such a range of people and interests as we have here, I doubt we would ever reach agreement. Everyone I meet, in whatever circumstances, has a stake in music. Everyone ‘owns’ music, and so has a view on

what it is and what it is not. However, we might consider a fundamental definition of music along the lines once proposed by Edgard Varèse: the organisation of sound in time.

Much of what I have already said has revolved around the question of sound, and the difference in attitudes or approaches to its organisation is what makes *musique concrète* and acousmatic music distinct from most instrumental music, and also from *elektronische Musik*. We have yet to consider the other component in Varèse's definition: time; and I think that perhaps we might broaden the discussion to embrace another aspect which has a kind of inverse relationship to it: space. Time is one of music's dominant characteristics and structuring strategies; space is one of art's. And it is here that boundaries really are being blurred.

Time and space

Time is what makes music out of sound. In my view, it is possible to have sound without music but you cannot have music without sound (and I don't think I'm misreading Cage on this!). 'Music' happens when sounds establish (either by happenstance or through the intervention of a performer, improviser, artist or 'composer') relationships in time between each other which make some kind of sense – i.e. they 'communicate' (to use a dangerous word, for it raises the question of whether music is a 'language' in any objective sense) 'meaning' (an even more dangerous word!). This is not to say that music is only about structure – if this were true, integral serialism might well be our musical *lingua franca*. Qualitative aspects of the sound material also come into play. Human beings tend to like to establish that something is 'beautiful' in and of itself as well as discerning beauty in the relationships between things. However, if a piece of music is based only on the structural relationships between events which in themselves are of no intrinsic interest, it tends dangerously towards the barren; conversely, if a piece is concerned only with surface beauty, with little heed paid to structural aspects, then repeated playings will soon render the listener tired and ultimately dissatisfied. And in case anyone is thinking that I am still stuck in the nineteenth century, let alone the twentieth, let me clarify that in making these comments I make no distinction between composed music, free improvisation (with instruments, laptops or any other means) or simply the potentially musical experience of walking down the street – all are equally amenable to the interpretation or testing processes I am describing.

My emphasis of the time axis in all this is, it seems to me, a crucial distinction between whether we perceive sonic events as music or as something else, such as 'sound art'. It seems fairly clear and uncontentious to assert that time plays a major part in musical communication, in musical structure (naturally occurring or imposed by human intervention) and in understanding an event as 'musical'. In much sound art, by contrast, we might cite *space* as the central reality of our understanding. In many sound installation works, for example, the sound material might be continuously present – possibly even on a loop – and the assumption is that listeners/viewers will experience different aspects of the piece as a function of moving their location, and as a function of when they entered the installation and how long they stay. Of course, 'time' thus also comes into the equation, for one cannot be in more than one location at once, but my point is that the time axis is incidental rather than fundamental – an inversion or reversal of their respective priorities in music. This is not to say that the incidental parameter is not important ('incidental' is not the same as saying 'of no significance'). In acousmatic music, spatial characteristics have played an increased role in establishing the nature and definition of sonic objects and their structuring, and the practice of sound diffusion is based, at least in part, on controlling the spatial behaviour of sound material. But the fact that we can listen to an acousmatic work on CD as well as in diffusion over n channels suggests that some crucial aspects of the music, including spatial information, are still present.

To underline some of what I have been saying here about the differences between sound art and music, I would like to mention a discussion I had with Bill Fontana a little over two years ago, at the start of his residency in the Birmingham Music Department (yes, the *Music* Department, where he is an Honorary Senior Research Fellow). While walking around Birmingham to find interesting locations for a project, he attached an accelerometer (a sensor used in stress testing which is, in effect, a high quality contact microphone) on the metal hinge of a canal lock gate. The delicate sound of tricking water, filtered by the wood and metal of the physical structure of the gate was enchanting. I commented that I could imagine all kinds of ways of using, transforming and incorporating it in a piece (of music). Bill laughed and said something along the lines of ‘Well, that’s the difference between you and me, Jonty. I just let them be and don’t intervene or tinker with them!’ At that moment I understood why Bill says that he *used* to be a composer! His work is frequently based on the idea of ‘discovering’ environmental sounds in what we might call ‘dislocation’ – i.e. in a place you would not normally expect to find them. For instance his recent work at the Tate Modern involved the internal sound world of Millennium Bridge (captured via accelerometers, once again) ‘transported’ into the Turbine Hall (and also into a nearby Underground station).

In contrast to Fontana’s essentially *laissez-faire* (yet nevertheless precise) attitude to his material, I would say that my interest in sound material is in its *compositional potential* – or to put it another way, what it might yet become, and how it might relate to other sounds; please note that this still embraces sonic objects in their raw state as well, of course – unmodified recordings have become an increasing feature of my work – but for me, sound *au naturel* is merely one end of the axis of possibilities. And, to be honest, even when sounds appear to be ‘as recorded’ in my work, they are, as in Foley, enhanced and fiddled with, and frequently placed in a completely artificially constructed context *so as to appear to be real*. But in order to create structures in which we can understand the relationships between sounds as recorded and modified/transformed versions of the same sounds, one needs also to work with the time axis, otherwise the presentation of the sound is only ‘as it is’, whether raw or cooked, as recorded or transformed: essentially one-dimensional, existing in an eternal present, with no history and (more worryingly) no future. In a *musical* discourse, one has the possibility of a multi-dimensional understanding of the sound material, but only if the time axis is a prime factor in the revealing of the inner nature of the sound. And if, in a piece of sound art, ‘untreated’ and ‘processed’ versions of the same sound appear, then the artist is evoking the time axis and moving into the domain of music, a fact which carries with it a host of implications for decision-making and the handling of time. It would worry me to think that an artist in this context might ignore (or worse, be unaware of) these implications.

So now I have said it. Music and sound art are not synonymous. Music may be sound art but, by my definitions, sound art is not music. Of course, it probably does not matter anyway but, having been rejected from some quarters of ‘music’, acousmatic music is now in danger of being subsumed by a ‘sound art’ agenda which is motivated by completely different concerns. I am not objecting to the existence of this parallel world. I do, however, have some concerns about agencies who say they want to help BEAST develop, when it transpires that what this means is not that they want to help BEAST in its core activity of presenting acousmatic music to the public at the highest possible standard, but for BEAST to work in ‘new’ fields – to take on, in fact, a supporting role for other arts and inter-media work – a fundamental contradiction of BEAST’s acousmatic *raison d’être*.

Acousmatic Music and Performance

Mention of BEAST (Birmingham ElectroAcoustic Sound Theatre – the performance ‘wing’ of the University of Birmingham Electroacoustic Music Studios, which can now field a rig of around 100 loudspeakers for the diffusion of acousmatic music) brings us to a brief consideration of performance practice in acousmatic music and its relationship with other performance modes in the musical domain.

Sound diffusion is the practice of distributing acousmatic works (predominantly stereo, but increasingly in a bewildering array of multi-channel formats) over a large number of loudspeakers. The rationale for this is that the historical storage media of tape or even CD cannot adequately encode the dynamic range expected by the ear, nor can carefully composed spatial detail necessarily be heard everywhere in a large public space. Diffusion addresses these problems by means of a performer who exaggerates the dynamic range and the spatial gestures on the storage medium by dynamically redistributing the original sound image, manually and in real time, over multiple loudspeakers positioned around the space; the aim is to reinstate spatial detail and reinvigorate the dramatic impact of the music.

I am sometimes criticised for setting out seats for BEAST events which all face in one direction. The justification for this is that maximising what is heard by a large number of people is best achieved if they all face the same way, as our ears are best at detecting spatial detail in front of us and curving round to the sides. This physiological fact is disregarded by people who advocate lying on the floor to listen, or allowing people to wander around or to come in and out at will. I don't have a problem with those modes of presentation, but they require different music or sound material, which is not as dependent on that type of spatial articulation. Another criticism I hear quite regularly is that there is nothing to look at (well, this *is* acousmatic music that's being played), though this could just as easily be code for the disorientation people sometimes experience when they hear unfamiliar sounds to which they cannot ascribe a cause. There is also the troubling fact that if a visual stimulus is also present, aural attentiveness tends to suffer.

The criticisms of diffusion events to which I just referred are usually based on the assumption that acousmatic composers and diffusion performers are perpetuating an outmoded presentational paradigm – the ‘concert’. This is often unfavourably compared to the trend towards laptop performances in recent years. Many of my students are involved in this area of work and I have even been known to try it for myself (if you buy me a pint later, I'll even reveal my dreadful stage name!). At its best, this is a perfectly valid practice with which I have no quibbles. I do, however, object to this particular performance mode being exalted above all others within the sonic arts scene, especially if it is on the spurious grounds that diffusion concerts are, by contrast, inherently old-fashioned. I would argue that, on the contrary, it is the laptop performance that is based on a truly traditional concert paradigm, with its focus on the performer, often on a stage and in a spotlight. What is usually lacking, though, in laptop events is the cause/effect relationship between human gesture and the resulting sound. Because the computer is not immediately or intrinsically a physical tool or instrument (though I admit that it can be programmed to be), there is no necessary causal relationship between what the ‘performer’ is seen to do and what is heard. For all the audience knows, the performer, hunched over a laptop on stage, could be playing a CD while checking e-mails or downloading porn. (Well, I did say I might ruffle a few feathers!)

Collaboration, diversification and hybridisation

Despite my aggressive defence of acousmatic music (I once described myself as an acousmatic vigilante), I am also a realist. I am fully aware of the huge potential for the involvement of acousmatics with other art forms. I have collaborated with dancers and choreographers and done 'sound installations' myself, and so have many of my students; some of them also work regularly with film and other media.

Collaboration between practitioners from different art forms makes possible further expressive and structural exploration – specifically the added underlining of important moments through synchronisation of events (the time axis again!) and its 'opposite', the extension of contrapuntal opportunities. Unfortunately, it is all too possible for works combining two or more art-forms to rely too heavily on only one of these two extreme positions, resulting either in 'Mickey-Mousing' in the first case or apparently random, unconnected cohabitation in the second. The argument that, as human beings, we supply our own causality or connectivity in the latter case is persuasive only up to a point, and is, for me at least, too unreliable and fragile a principle to use as a basis for collaboration.

Though it is actually nothing new in itself, digital technology and ready access to programs which enable the editing, mixing and sequencing of sound, images, video, graphics, etc has increased the number of people now engaging in what I call diversification – the creation by a single artist of 'inter-', 'cross-' or 'multi-media' works combining different identifiable art-forms. There seem to me to be some potential dangers here, of which the main one is dilettantism. Years of training, practice and knowledge- and experience-gathering go into the formation (and I deliberately invoke the French sense of this word – i.e. education – as well as the obvious English meaning) of a creative artist in whatever field. How is it possible that someone can, effectively overnight, become an equally adept practitioner or expert in another field, simply because some new software makes access easier? Even within a single cognate discipline such as 'music', there is such a bewildering variety of skills that no one individual can have them all to a high level. No-one here would, for example, thank me if I now tried to sing to you or play the cello. I am even more confident in asserting that any attempts I might make at visual art or poetry would be perceived by practitioners in those fields as precisely what they would be: amateur dabbling. Yet we insist on deluding ourselves with the notion that, since the invention of Final Cut Pro, we are all Fellini. If only it were so simple! Some composers have tried this, of course – and some attempts are pretty good in my view (though I make this claim purely on the basis that I like what I see and not from any real confidence in my own ability to judge the other art-form) and some have won acclaim from the visual arts field to corroborate my reaction; most are not good. As a musician, I cringe at what choreographers sometimes do to music, stringing together, via bad edits, existing pieces of music without concern or even awareness of the musical logic intrinsic to each one. I also find many instances of 'sound art' rather thin in musical terms, as the sonic and structural implications of the sound material itself is not built into anything beyond its initial self. Of course, the counter-argument to this is that the intention of the artist was not 'musical' in the first place, so my objections are invalid. As sound is often the poor relation in the arts, however (remember the differing percentages of visual and aural information which are processed by the brain when both are present), I feel that I must fight for a corner of the arts patch for an art which is based purely on sound, in which listening is the only activity and where there are no visual distractions to make our ears go walkabout for a while – an art which is, in other words, acousmatic.

The third type of inter-art form creative activity might be called hybridisation. In this, what emerges is actually a new art form. One might make a case here for some kinds of activities

combining elements of sound, musical performance and electronics (Cage's *Cartridge Music*, for instance) establishing something new, though I have already discussed the extent to which I am convinced by such claims from some advocates of laptop performance.

The most dangerous tendency in this area, though, I consider to be the trendy perpetration of a gross fiction. It has been claimed by many that, because we now live and work in a world where all information is stored in digital form, this somehow standardises the information itself and renders it all essentially 'the same'). Try as I might, I cannot see the logic of this argument, which is rather like saying that, because they are all stored in bottles, there is no essential difference between a good Pauillac, sunflower oil or bleach.

That old chestnut again

Before finishing this presentation, I must return to my *bête noire*, the linking of 'acousmatic' and 'academic'. Acousmatic music challenges the very basis of what most western academics consider music to be. It does this, as Wishart has so eloquently pointed out, by bypassing notation as the means of encoding, transmitting, storing and studying music. Yet if the study of music in western academia is characterised by any single thing, it is surely the reliance on notation as its primary tool and the thing by which music is analysed and ultimately judged – what we might term the verification, ratification and authorisation of given pieces of music as 'masterpieces'. How is it, then, that acousmatic music (which, as we have seen is properly a term describing a listening condition and, by extension, an approach to organising sound material in a way which takes account primarily of its characteristics *as perceived on listening*) is so often characterised as 'academic acousmatic music'? In what sense, precisely, is it 'academic'?

Is it because some people involved in its creation happen to teach in universities and colleges? If so, I believe the connection is spurious. Like me, many composers who teach in higher education institutions in the UK and around the world are academics by accident rather than by design. Is it because its creation was at one time only really feasible in an institutional setting, when the resources necessary to produce it (multiple tape recorders, mixers, processing devices and loudspeakers) were far beyond the financial means of individuals? Though this may have been true at one time, the emergence of the personal computer has progressively undermined this situation to the extent that, since 2003, I – and large numbers of other people – have been able to do more extensive and more complex signal processing and mixing, and to a higher audio quality, on laptop machines than was possible in any tape/analogue studio.

Summary and conclusions

You may well be relieved to hear that I now propose to move towards summarising and concluding this defence of acousmatics within an arts context in which its survival is by no means guaranteed.

I have tried to establish that acousmatic music, descended from *musique concrète* is an art form based on qualitative assessments of the observable attributes of sound material. The key to structuring this material also lies in the characteristics of the material itself.

Sound material appropriate to acousmatic music can be drawn from any sounding source, though any given source is no guarantee of good music – this is something to be established between material and composer. The expanded sound world of acousmatic music can range widely between 'real-world' and 'abstract' material, can incorporate referential, anecdotal and narrative

elements (without, however, any requirement to conform to verbal narrative conventions) and can evoke, variously, ‘real’, ‘unreal’ and ‘surreal’ situations as well as more abstract musical discourse (including within the same work and even concurrently).

As acousmatic music incorporates temporal shaping of sound as a primary structuring feature at both micro- and macro-level, it clearly qualifies as ‘music’, even though many musicians do not accept this and would probably be more likely to classify it as ‘sound art’. This is unlikely to meet with universal enthusiasm from the sound art community, however, who have their own reasons for working with sound. And, although acousmatic music and some examples of sound art may share some surface similarities, the two fields are distinct and distinctive.

Far from not being music, I would argue that, as music is an art form based on sound, then acousmatic music – which exists only *as* sound, with no score to be interpreted by instrumental or vocal performers – might be considered to be music in its purest form.

The performance paradigm of acousmatic music is specific to the needs of its public presentation in consideration of the primary necessity to hear clearly what is being performed; any further similarity with concert activity past or present is entirely coincidental.

Acousmatic music is insufficiently known for a number of reasons, including marketing (it is difficult to find appropriate ‘images’ for advertising something with no visual content), education (very few students arriving in university music departments have heard it or heard of it) and cultural access within the English-speaking world (key texts, such as Schaeffer’s *Traité des objets musicaux* have never been translated). In addition, the expanded poetic of the genre and the problem of unfamiliar sounds without apparent causes may trouble those of a nervous disposition.

We live in an increasingly multi-media world where music of whatever flavour is considered little more than an adjunct to visual entertainment and a style accessory. Listening to music – listening properly and in detail – is hard work and not generally encouraged or considered worthwhile. If this is true for music in general, then the situation is even worse for acousmatic music.

What can we do about all this? We can carry on.