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Virtual liveness and sounding cyborgs: John Oswald's 'Vane'

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Abstract

This article presents the concept of virtual liveness and demonstrates its relevance in an analysis of 'Vane', one of John Oswald's plunderphonic *pieces. It argues that even when encountering a piece of music that lacks a physically co-present audience, lacks largely unmediated acoustic sound and lacks a live performer, the term 'performance' may still be usefully applied. In these cases, however, the sense of liveness that invokes this idea of performance is often more* virtual *than* actual*. 'Vane' sounds not just like a combination of Oswald's two source recordings (Carly Simon's and Faster Pussycat's versions of 'You're So Vain'), but like a new technological entity: Oswald's manipulations of his source material result in sounds that are decidedly 'of the machine', even as they invite us to sing along with Carly Simon's and Faster Pussycat's performances. We enter into a complex network of references between the performances represented in the original recordings and this new, virtual performance – the performance, ultimately, of a sounding cyborg.*

Introduction

Liveness stems from a perception of human performance, when traces of this performance are potentially threatened to be overwhelmed by the use of 'non-live' technologies (audio and video recording devices, sound synthesis devices, etc.). Since Philip Auslander's landmark publication, *Liveness: Performance in a Mediatized Culture* (1999; now in its 2nd edition, 2008), the academic literature dealing in the study of performance, theatre, media, popular music and electronic music has periodically been populated by discussions of liveness in a culture that is largely defined by its ubiquitous use of such electronic media. These discussions usually revolve around issues of whether or not live performance still matters, how the performative meaning traditionally associated with performance might be preserved in the face of all this electronic technology and, as in the present study, how liveness might, in fact, be defined – or re-defined – in an era of mediatised performance. Auslander borrows the term 'mediatised' from Jean Baudrillard (1981), who coined it to indicate the important part played by dominant social and economic codes of mass media technologies in so much modern cultural production. Mediatised performance, then, is not just performance mediated by a microphone or television camera (for instance), but is performance whose very identity is, at least in part, *shaped* by those mediating processes.[1]

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In the face of such technological threats, music studies (particularly those addressing electroacoustic music) have dealt at length with locating liveness in mediatised music through the recognition of physical acts of performance and reception (for example, connecting drum-like sounds with hitting gestures) – what I have elsewhere called *corporeal liveness*.[2] This connection between liveness and corporeality has been made by so many primarily because traditional acts of music making – those seemingly most threatened by 'technological intrusion' – rely on kinetic energy from a performing human body (singing, striking, bowing, etc.) to produce musical sound. Electronic sound technologies offer the subversion of the need for this human energy, and thus their extensive use would seem to threaten the eradication of liveness.

What happens, then, when the limits of human performance are clearly surpassed? When corporeality (or any other performative quality, such as spontaneity or interactivity) is clearly matched, or even exceeded, by qualities of mediatisation? Does this mediatisation, in fact, erase all traces of liveness? I argue in this article that liveness may yet persist in these situations, and I propose the concept of *virtual liveness* as a tool for theorising performative meaning in such contexts. Like corporeal liveness, virtual liveness involves identifying traces of live performance in mediatised music. Whereas most accounts of liveness focus on the perception of *actual* performers, however, virtual liveness invokes virtual performing personae: performers who exist only in a listener's encounter with highly mediatised music (in this case, a recording involving high levels of electronic sound manipulation).

Virtual personae exist, in other words, in what Jason Toynbee (2000, p. 69) calls the *technosphere*: a 'domain of imaginary possibilities and constraints' in mediatised music, which lies on a continuum between performed ('live') sound at one end and its remote – and mediatised – reception at the other. Liveness persists in the perception of virtual personae because, despite high levels of mediatisation, recognisably human performance still maintains a place of central importance. Yet human performance is not the only source of meaning attributable to these performance contexts; rather, it works in productive tension with highly perceptible elements of mediatisation so that our virtual performing personae also may be described as *sounding cyborgs*.

Various neighbourhoods of cultural study, such as electroacoustic music theory, cultural theory and media theory, among others, offer useful theoretical tools (addressing, for instance, aural source recognition, the subjectivity of performers and listeners, virtuality and the cyborg figuration[3]) to help explain virtual liveness and sounding cyborgs. Thus, the first portion of this article will demonstrate how I incorporate these ideas into my own theories of liveness, laying the foundation for the analysis that will follow.

The remainder of the paper will put these theories to work in a critical analysis of virtual liveness in John Oswald's *plunderphonic* piece, 'Vane' (1990).[4] I rely here partly on Oswald's own statements about 'Vane', which imply his perception of an imaginary performing persona in a piece that owes much of its identity to electronic studio composition techniques. Oswald's comments prompt me to invoke the sounding cyborg figuration in my own hearing of his work. In my analysis, which focuses especially on Oswald's combination of his source materials, I identify a sounding cyborg imbued with virtual liveness both by its evocations of two recognisable performance styles and by the ways these styles combine via technological manipulations. This virtual persona presents new associative meanings of

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corporeality, genre, gender and liveness, inviting new stylistic interpretations precisely because of the unique combination of elements enacted by Oswald in his digital realisation of 'Vane'. First, then, I state the theoretical underpinnings of my approach to virtual liveness and sounding cyborgs.

Liveness in acousmatic music: hearing sounding cyborgs

Source recognition, subjectivity and personae

In order to understand or perceive any kind of liveness, one must keep in mind the basic concept of communication (whether real or imagined) between 'performer' and 'audience'. For an audience to glean any performative meaning from a musical experience, then, some sort of *source recognition* must take place – an appreciation of musical sound emanating from a particular, identifiable source – in our scenario, some type of performer. Of course, a listener's ability to recognise the specifics of that source will depend greatly on her own *subject position*: how does her interest/education/experience influence her perception of that source? Finally – and here the use of electronic technologies has a very significant impact – in highly mediatised musical contexts, perception of liveness may extend beyond what a 'real' performer has presented for his audience, and he may find himself sharing the stage with, or even relinquishing it entirely to, an imagined and technologically enhanced *performing persona*. A closer look at these three concepts will allow for a clearer explication of how virtual liveness can emerge from even highly mediatised recorded music.

Identifying sound sources in recordings of many types of music is not at all problematic, and often lends itself immediately to an understanding that performing musicians were responsible for the sounds heard on that recording – an understanding that usually carries with it much of the corporeal significance already discussed. Highly mediatised music, however, can present a more complex scenario as far as source recognition is concerned. Recognisably human utterances can easily be obscured or overwhelmed by rather unrecognisable machine-like sounds, throwing the issue of liveness severely into question. Nonetheless, where recognisably human sound sources do persist, even when in conversation with highly mediatised sounds, liveness may still be a useful tool with which to analyse the resulting musical experience, so long as a nuanced consideration of source recognition plays a part in the analysis.

While popular music studies have dealt to a great extent with the electronic treatment of space around a recorded sound source (echo, reverberation, etc.),[5] we must turn to electroacoustic music studies for a sustained discussion of the recognition of those sources themselves. Any such discussion must begin with a consideration of the earliest large-scale attempt at creating a purely acousmatic art music (that is, art music that exists only on recordings),[6] Pierre Schaeffer's *musique concrète* (so named for its reliance on the manipulation of recorded *concrete* sounds that are directly perceived without reliance on notation). Despite Schaeffer's insistence that such music could be heard in such a way as to eliminate ('bracket out') all associations with the original sources of its sonic material (be they conventional instruments or trains),[7] however, Emmerson (2007, pp. 5–6) reminds us that much acousmatic music often causes listeners to pay more attention to perceived sound sources, in an attempt to compensate for the missing visual stimulus.

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In fact, many composers of electroacoustic music since Schaeffer's initial experiments have taken this impetus toward source recognition as a central aesthetic tool in their work. Such music often *depends* for its effectiveness on listeners making associations between the sounds they hear and their perceived sources of these sounds.[8] A basic perception of corporeal liveness is based on the same principle: identifying a perceived source of sound. In much acousmatic music, however, play with source recognition runs much deeper, as it often explores sounds beyond (but not excluding) those associated with the musically performing human body. The interplay between those sounds whose original (physical) sources are easily recognised, and those beyond recognisability, constitutes the central interest of much of this music.[9] As we will see, my analysis of 'Vane' focuses a great deal on the interplay between sounds easily ascribed to the performers of the original recordings, and those that resist such easy source recognition (even though *all* sounds in the tune derive in some way from the original recordings).

Of course, the level of recognisability of each source, despite its level of mediatisation, depends a great deal on the individual subject position of each listener/observer. In fact, the fluidity and flexibility of liveness, as I present it here and elsewhere, reflects in part the very subjective nature of the entire concept. Liveness is intrinsically linked with perception, and therefore highly dependent on the one perceiving musical performance. Each individual listener/observer presents a potentially unique experience of liveness in any given situation, including those outlined in the previous paragraph. Furthermore, the whole idea of communication between performer and listener depends on recognition of the subjectivities of both parties.[10]

High levels of mediatisation, then, may threaten the ability of listeners to identify the sources of the sounds they hear, depending on their own knowledge, experience and interests (and other realities of their own unique subjectivities). For instance, a listener, unfamiliar with the possible ways electronic sound technologies can alter recorded sounds, may hear in a highly processed drum track only that 'some type of drum was hit'. A listener familiar with the aural effects of various electronic signal processing techniques, on the other hand, may correctly identify a tom drum captured with a distance microphone and treated subsequently to heavy artificial reverberation and a quickly rising low-pass filter.[11] Put another way, this listener may be able to determine with great accuracy the extent to which the sound she hears derives from the drummer's initial physical gesture. The resulting significance of that perception may generate a very different appreciation of the piece of music from that experienced by the first listener. Each listener's subject position, then, significantly affects their encounters with music and, more specifically, with liveness, which relies on the concept of communication between performers and listeners.

Western musical thought has long held that traditional performance situations set up an ideal model of this type of communication. Traditional settings that place performers in a position facing an audience mimic conventional 'face-to-face' contexts of communication. This direct relationship between performers and listeners receives extra emphasis in more intimate performance settings, such as pubs. Of course, larger performance spaces (a rock arena, for instance) promote a greater sense of anonymity due to the sheer number of listeners, combined with the physical distance between the performers and most of these listeners. A sense remains, nonetheless, that these performers are present at one time and in one place to perform for their audience and for no one else.

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A sense of direct communication, and thus the subject position of the listener, is potentially more severely threatened, however, when listening to recordings. Listeners no longer hear sounds performed 'just for them' in a particular time and place. It would seem more difficult, then, for a listener to experience this music as the 'I' of a direct 'I–You' communication when he is just one of possibly thousands of people who will hear this 'performance' and when the performers are not aware of his presence in that potential interaction. Performers here perform for an infinite number of potential anonymous listeners,[12] and those listeners now choose at will from countless 'performances', all frozen in the form of CDs or as invisible files existing only in cyberspace and awaiting their multiple identical instantiations through multiple sets of speakers.[13] Any potential form of 'I–You' communication is further threatened by acousmatic music in which performers are avoided altogether, for then both 'I' and 'You' may seem to disappear entirely.

The concept of *performing personae* will help to explain how subjectivity may be maintained in these types of situations, so that liveness might then remain an important part of recorded music even when traces of conventional performance are obviously mixed with – and at times obscured by – electronically produced sound. I argue here that listeners, in seeking their own subject positions, may also assign subjectivity to that with which they seek communication (in this case, what they hear on a recording), even when they know there is no 'real' performing human body producing those exact sounds – when physical boundaries of human music performers are surpassed by technological means. In other words, they construct a virtual performing 'You' – a performing persona – in order to complete the line of communication.

In her engaging study of musical subjectivity, Naomi Cumming (2000) demonstrates the importance of the performing 'personality' – a performer's musical identity – and, furthermore, how that performer's perceived subjectivity informs a listener's encounters with performances, whether live or on recording. She presents a review of a performance by the violinist Midori, in which the reviewer is disappointed that the 'Midori' he heard in concert does not sound like the same 'Midori' 'who sells all those CDs' (Potter 1996, p. 734; quoted in Cumming 2000, p. 21). Cumming argues that the disparity between the two Midoris exists because recordings, through the various recording and processing techniques practiced by studio engineers and producers, are able to present a different sounding 'personality' from that which *actually* exists. This personality heard on CD is, however, no less real to listeners:

> By altering the balance, dynamic level, and quality of her sounds, the engineers have effectively created for her a musical 'body' and identity, at least in [the reviewer's] experience. They are able to effect this illusion because the characteristics of sounds are the aural 'marks' of bodily actions. A violinist's perceived 'strength' reflects the tension of her muscles, the weight of the arm as it is allowed to fall in the movement of a bow, the degree of friction in an 'attack'. Although a listener's attention, when playing a CD, may not be directed to bodily actions … the impression of a 'personality' can be gained subliminally through the markers in sound of what seem to be the performer's characteristic physical responses. Sonic illusion is not, then, the innocent cleaning up of a musical surface, but the construction of a personality. (Cumming 2000, pp. 21–2)[14]

Yet potential problems exist in trying to apply Cumming's concept of personalities in traditional violin performance to recordings of imaginary sounding cyborgs such as the one we will shortly encounter in 'Vane'. Perhaps primary among these is

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the ease with which the recorded Midori can be mistaken for the real Midori. It is conceivable that the sounds encoded on a Midori CD are faithful to Midori's actual performance capabilities, since her CDs still sound like a 'real violinist' – like a fully human, musically labouring body.

The significance of the body in such a perception of even a 'false' performing personality can perhaps be explained by turning to what has been called, variously, 'kinematic empathy' (Todd 1995), 'bodily hearing' (Mead 1999), 'corporeal signification' (Leman 2008, pp. 17–19), among other labels. According to these and other researchers, listeners rely on their own embodied experiences to make sense of another body's musical performance. Following this line of reasoning, by having experienced physical sensations that relate in some way to the musical performance in question, the reviewer here may have identified, if only on a subconscious, corporeal level, with the 'false' Midori. His own body has mediated between Midori's recorded performance and his mental cognition of the same, and because his own corporeal experience has allowed that to happen, the recording seemed, at least at first, realistic. The reviewer's disappointment at learning he had been duped is evidence that he believed in the reality of the recorded Midori personality, which turned out to be only partly the real, physical Midori, and partly a technological construction. Can listeners still hear personalities, however, even when technological construction *obviously* accounts far more for what they hear than actual performance; that is, when the boundaries of embodied performance have clearly been crossed in favour of expanded electronic possibilities?

My unequivocal answer to these questions is 'yes'. Before explaining why, however, I must address a point of terminology. As stated, I wish to extend Cumming's concept of a performing personality into the realm of recorded music that is obviously 'electronic'. Yet I find that because the personalities created in much of this music are just that – creations – as much as (if not more than) they are traces of real people, the word personality implies an entity that is too distinct for my purposes. In Cumming's usage, the term seems to imply a definition provided by the Shorter Oxford English Dictionary (SOED): 'the assemblage of qualities or characteristics which makes a person a distinctive individual; the (esp. notable or appealing) distinctive character of a person'.[15] This seems appropriate when addressing the subjectivity of living, breathing individuals (such as Midori).

Persona, on the other hand, implies an entity that is more 'put on', or consciously acted – in a sense, created or performed. The SOED also provides a useful definition for persona: 'A character assumed by an author, performer, etc., in his or her writing, work, etc.'[16] For my purposes, however, the persona is as much a character identified by any listener as it is one (per)formed by a composer or performer. After all, the subjectivity of each individual listener ensures that they may all 'create' for themselves different performing personae. In this sense, listeners exercise as much agency in the creation of performing personae as do those responsible for the sounds on a particular recording (composers, performers, engineers, producers, etc.).[17]

Virtuality, virtual liveness and sounding cyborgs

The reliance of my theory on (partly) imagined performing personae, created in the minds of listeners encountering high levels of mediatisation acting in tandem with traces of (particularly corporeal) liveness, takes us into the realm of the *virtual*.

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Once an understanding of the virtual is reached, and an acknowledgment of the significance of virtual relationships in many modern cultures is acknowledged, it becomes clear how virtual relationships between listeners and imagined performing personae can lead to very meaningful perceptions of *virtual liveness*. I will also argue here that the theoretical figuration of the *sounding cyborg* can help us to make further sense of the imagined persona's very real performative power within highly mediatised musical experiences.

The word 'virtual', to be sure, carries with it several possible connotations, two of which seem especially useful and appropriate in this context. First, this word has been used increasingly in recent years to indicate some experience that is mediated by digital technology. For instance, *virtual realities* – computer-simulated physical environments – have been part of the popular imagination since the late 1980s. Additionally, as the internet becomes a more vital part of many modern lifestyles, we refer to more and more of our activities as taking place *virtually* – that is, through the mediation of cyberspace.

Second, and not in an entirely unrelated manner, the word 'virtual' is also used to describe something that is, to borrow from Rob Shields (2003, p. 25), 'real but not actual'. In other words, the virtual is real in essence, but not literally so. It seems to exist, but not in any concrete form. Taken in conjunction with the nature of a modern cyberculture, the application of the term 'virtual' to activities carried out through electronic networks of communication within that cyberculture begins to make a great deal of sense. For within this cyberculture – and with this term I refer to a modern culture highly reliant on (even obsessed with) the possibilities of computers and other electronic technologies to mediate an increasing number of social interactions – many participants are prepared to imbue the implicated technologies with their own virtual subjectivities.

These subjectivities are virtual in both senses of the word: they are mediatised and lacking in concrete reality. Without question, the imbuing of subjectivities to machines involves a willing suspension of disbelief, for we all *know* machines are objects that merely act as they are programmed to act.[18] As Margaret Morse argues, however, many are prepared to suspend this disbelief, for virtual interactions with electronic technologies (and with other humans through electronic technologies) play an increasingly important role in how many modern societies function. As the 21st century progresses, increasingly more social activity moves to digital realms, where communications are reduced to binary data before taking their ultimate forms as images or sounds.[19] Making sense of this reality is an imaginative act:

> [W]hether business or entertainment, in order to support a culture based on more than just the economic exchange-value of data, information that has been *disengaged* from the context of the subjects, time, and place in which it is enunciated must be *reengaged* with personality and the imagination. That is, an information society inevitably calls forth a *cyberculture* that enjoys far different characteristics – much like alphabets and phonemes can be articulated at higher levels of language. (Morse 1998, pp. 5–6, emphasis in original)

The defining characteristic of this cyberculture is its virtuality: its existence in a realm that is real despite its lack of concreteness. Thus, within cyberculture, virtual relationships take on real meaning for participants. In cyberculture, users extend the idea of '"personhood" to machines'. Therefore, 'A machine that . . . "interacts" with the user . . . can produce a feeling of "liveness" and a sense of the machine's agency and – because it exchanges symbols – even of a subjective encounter with a

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persona' (Morse 1998, pp. 14–15). The presence of such virtual relationships, not to mention their importance within modern cultures, makes possible their extension into mediatised musical settings, in which they become the basis for the perception of virtual musical liveness. The belief in a discourse between performer and audience – even a virtual or imagined discourse – makes this virtual liveness very real indeed, and incredibly resonant with a broader cyberculture.[20]

Virtual liveness is at work, then, when a listener identifies with a performing persona in a piece of highly mediatised recorded music. The persona necessarily takes on qualities of a human performer, but in its virtuality, also adopts some electronically based characteristics. Such is the case, for instance, in Katharine Norman's (2004) analysis of Magali Babin's tape composition 'Petit jardin' (2002), for which Babin performed the percussive sounds in an improvisatory fashion and recorded the results. She then compiled the composition in the studio from these sounds, treating them in several instances to a great degree of electronic signal processing.

In Norman's analysis of the piece, she describes her own visceral reaction to the physical gestures she imagines Babin to have made in performing the source sounds for the recording. Yet she also identifies an electronic 'presence' among these sounds, and an interaction between the concrete and the digital. The piece depends, then (both in Norman's account and in my own hearing), on a close interrelationship between corporeal and technological presence. The performance that Babin gave in the recording studio has been altered; the performance audible in this piece has been created anew. The performer we hear, if such a being were to exist, is part Magali Babin and part recording technology. Its 'body' is no longer just human, but now enjoys the extended performative capabilities afforded it through digital sound technologies. This hybrid persona exists only in a network of mediatised sound, only in the technosphere. It is virtual, and thus so is its liveness.

The virtual persona in 'Petit jardin', like the virtual persona we will encounter below in 'Vane', suggests one final theoretical concept by way of its human-machine hybridity: the figuration, virtual in itself, of the cyborg. The cyborg's liminal state – existing somewhere in the space between 'fully human' and 'fully machine' – makes it amenable to readings in which the transgression of boundaries inherent in human-machine relationships is emphasised. The cyborg's hybrid nature defies the commonly understood opposition between human and machine and thus potentially, by extension, between nature and culture, bodies and information, and especially between men and women.[21] While I am not primarily concerned here with the power politics specifically identified by many cyborg theorists,[22] I believe the cyborg figuration still offers a useful model with which to think about productive relationships between people and machines. It presents an alternative, in other words, to technophobic binary constructions that pit people *against* machines, by embracing the cyborg's ability to subvert these binarisms through its liminality. As liminal spaces are virtual spaces – located as they are *between* spaces of concrete reality[23] – the cyborg is a *virtual* figuration, free to challenge the commonly understood boundaries and limitations of its constituent parts by way of its hybridity. A sounding cyborg, by extension, is a particular one of these virtual figurations – a virtual persona – that exists in the sounding realm.

The cyborg persona in 'Petit jardin', for instance, presents a free interplay between recognisably human sounds and recognisably technological sounds. This relationship between body and technology is not antagonistic, but open and creative.

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In order to properly understand the ubiquity of electronically altered human sounds in many recent musical styles, music scholarship needs theoretical tools with which to address the variously enacted musical relationships between people and machines. The figuration of a sounding cyborg is one such tool. It will soon become apparent that many similarities exist between my own interpretations of gender- and genre-bending by way of the sounding cyborg in 'Vane', and the arguments just outlined about cyborgs' abilities to transgress just those kinds of boundary-imposing categorisations.

Plunderphonics

Before a detailed discussion of 'Vane', however, a more general introduction to *plunderphonics* is in order. John Oswald's plunderphonic compositions exist only as recordings: they are not written down in any conventional form of music notation and they cannot easily be recreated by performers in any conventional sense.[24] Unlike the vast majority of recorded music, Oswald creates his plunderphonic compositions entirely from other, widely available commercial recordings, rather than from any newly recorded or realised sounds (hence his use of the word 'plunder'). He has used as source material the music of widely divergent composers and performers, including Michael Jackson, Duke Ellington, and Ludwig van Beethoven, among many others. For each piece, he submits one or more source recordings to various electronic sound manipulation techniques, such as speed alteration, montage, and sound reversal.

Most broadly, plunderphonics fall into a category of popular music described by Chris Cutler (1993b, p. 14) as 'progressive', which 'struggle[s] to liberate the communicative and aesthetic power' of new electronic sound technologies – a music 'whose aim is to engage and reveal' rather than to capitalise on the commodity market. But this tells us nothing about how plunderphonics *sound*, or even how they are made – merely about one of the levels of discourse on which they operate. At the compositional level, then, as outlined above, Oswald's primary instrument in these endeavours is the recording studio itself. His techniques, and simultaneously his aesthetic objects, include 'editing, multi-tracking, piecemeal fabrication, quotation, reference; in fact … the whole ambiguous life of recorded sound *as* recorded sound' (Cutler 1993a, p. 82).

More specifically, however, where should we place Oswald's plunderphonics as musical genre? Their overall *musical* style (with regards to tonality, rhythm, timbre, instrumentation and other results of compositional and performative choice) depends both on Oswald's source material (which can range from pygmy hunting calls, to tango, to Bing Crosby's 'White Christmas', all in the same tune[25]), and on how he chooses to manipulate it. Thus, though the majority of his plunderphonics can be heard as 'popular music', trying to define exactly what *type* of popular music (rock, pop, hip-hop, etc.) each one most resembles is often a futile exercise. This is not to say that their references to specific styles of popular music are negligible – indeed, my analysis of 'Vane' depends a great deal on the interpretation of the different genre norms represented within the song – but rather that to place any one plunderphonic within a single genre category is often impossible (and, as we will see, this is usually Oswald's intent).

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At the levels of compositional technique and material make-up, plunderphonics can be related to what Andrew Jones calls *musique actuelle* on one hand, and with more common sample-based forms of popular music, notably mashups[26] and some hip-hop, on the other. Like Cutler's description of progressive popular music mentioned above, Jones focuses in his account of *musique actuelle* (1995) on music that works to discover the aesthetic and creative possibilities of electronic sound technologies, without confining itself to any one musical style or approach – indeed often by bringing several musical styles together in one place. As Jones argues, '*musique actuelle* lets the future leak through when musical worlds collide' (Jones 1995, p. 7). In addition to their lack of widespread commercial appeal, the *musique actuelle* artists Jones discusses share an experimental approach both to their use of technologies, and to the very question of musical genre.[27]

Consideration of mashups and hip-hop, then (and here I will focus on turntablism, though other examples from hip-hop's broad spectrum would also work), provides perhaps a more recognisable context within which to consider Oswald's plunderphonics, if only through their differences. Of course, the work of various mashup artists and turntablists varies almost as widely as the *musique actuelle* artists discussed above but, at the very least, these broad genres can provide some more concrete examples against which to contrast plunderphonics. Plunderphonics share with both turntablism and mashups their complete reliance on audio samples, and on the technological manipulations of those samples to create something new. Among the many differences between plunderphonics and turntablism, however, is turntablism's basis in real-time performance. Oswald's pieces, by contrast, are conceived as acousmatic music, and indeed often involve far more complex layers of technological manipulations than would be feasible in a real-time realisation.

Perhaps the most obvious distinction between plunderphonics and mashups is the latter style's usual social function as a dance music, which necessitates certain musical characteristics, such as the maintenance of a steady beat (we can also understand much studio-based hip-hop in this sense). Mashups also generally maintain a typical popular song structure, whereas Oswald's plunderphonics range drastically in form, only occasionally resembling structurally the music from which he borrows his material. Finally, both turntablism and mashup creation exist as vibrant, dynamic cultures enjoyed by extensive worldwide communities, while plunderphonics have never managed to attract such a large number of fans or practitioners.[28]

Taken more on its own terms, Oswald's plunderphonic method revolves around the fundamental idea that, despite the changes performed upon them, his original sources should be instantly recognisable to listeners, hence his reliance on commercial recordings. Oswald explains his method and terminology further in a 1989 interview with Norman Igma:

> ***Oswald:*** A plunderphone is a recognizable audio quote. Recognizable by at least a lot of people. That part is a bit vague. The piece may become less recognizable once we get through with it, but to remain plunderphonic the derivation must maintain a substantial degree of its original character.
> ***Igma:*** So you take a song and change it somehow; but someone who is listening to it will still recognize the song. Is that right?
> ***Oswald:*** Yes. Although it may not be the melody and lyrics of the song that they are associating with. It might just be the sound. My conviction is that the average person will realize they're hearing a familiar recording long before the melody makes its signature, or

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the singer gets to the words. The timbre, or the sound, of the recording is the trigger. (Oswald and Igma 2001, p. 32)

Sometimes, the source material is easily recognisable and the transformations enacted upon it are easily identifiable.[29] In other plunderphonic pieces, Oswald's manipulations are so extreme as to approach the threshold of recognition for most listeners.[30] To engage with Oswald's plunderphonics is thus to engage with a network of intertextual associations, not unlike the intertextual contexts created by turntablists and mashup artists. Oswald presents his listeners with multiple layers of meaning, which are carried not only by his source material but are also created anew by the ways in which he alters, recontextualises and combines this material. Often, these new layers of meaning challenge those commonly associated with the recordings from which plunderphonics originally derive. Oswald's 'Angle' (1990), for instance, demonstrates how plunderphonic music can reconfigure a source's genre. In this track, Oswald extracts very short segments of the Phil Spector-produced doo-wop hit 'Pretty Little Angel Eyes' by Curtis Lee and The Halos (1961), looping various arrangements of these segments in such a way as to emphasise a newly imposed rhythmic regularity. This rhythmic emphasis greatly overshadows any type of textual narrative or extended melodic repetition (both very important aspects of the doo-wop aesthetic) that existed in the original recording.[31] The resulting piece brings the familiar doo-wop sounds of 'Pretty Little Angel Eyes' into a context resembling much electronically produced dance music of the 1990s.

The conventions of musical genres, however, carry far more associative meanings than just those which can be described in musical terms. Indeed, much music scholarship of the past two decades, particularly in the field of popular music studies, does vital work in emphasising how different musical styles and practices perform meanings pertaining to class, race, gender and other important realms in which social relationships are enacted. These associations are not lost on Oswald, whose plunderphonic challenges to previously well-defined distinctions among genres also reconfigure the ways in which class, race and gender are typically performed by these genres. With respect to his plunderphonics box set (2001), Oswald relates that he was excited by the prospect of having it filed in the most typically diverse section of record stores. He states, 'The traditional record sections are, for the most part, either racist (soul and pop), sexist (male and female vocals), or class based (classical and folk). In the box set department race, gender and social class get mushed together' (Oswald and Igma 2001, p. 11).

More than just 'mushing together' these styles in the form of a box set, however, Oswald juxtaposes these social categories within individual compositions. His 'Power' (1975) sets up a simple dichotomy between instrumental material by Led Zeppelin (whom Oswald calls 'those famous satanists') and a recording of an evangelical preacher. Oswald explains, 'i think i was trying to create an uncomfortable situation. … Rock fans were uncomfortable listening to talk about god and jesus. God and jesus fans were known to be uncomfortable about rock' (Oswald and Igma 2001, p. 5).[32] Oswald thus presents a piece with which those who would normally listen to either one of his source recordings may now have difficulty relating. Whatever meaning or 'message' they may once have derived from this material is now presented along with sounds that represent far different, and potentially conflicting, meanings. This concept of conflicted musical identities brings us,

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finally, to 'Vane', in which interrelated issues of gender- and genre-confusion play vital roles in creating an important sense of virtual liveness.

'Vane'

Background and description

Oswald realised 'Vane' as part of a commission from the Elektra recording label. On the occasion of their 40th anniversary, Elektra released a two-CD collection called *Rubaiyat* (1990), which consisted of some of the most successful records from their 40-year back catalogue, all performed anew by artists who were then currently signed to the label. Among many other cover versions, Faster Pussycat recorded a glam metal version of Carly Simon's pop hit 'You're So Vain' (1972). As part of this project, Elektra intended to release an additional EP of Oswald's plunderphonics, all of which drew from Elektra's recording vault. Elektra, however, failed to secure copyright permission from both Metallica and The Doors' estates, both of whose recordings were used as source material for Oswald's compositions.[33] Thus, the plunderphonic EP *Rubaiyat* (which Oswald prefers to call *Elektrax*) was only released to radio stations and never circulated commercially (Holm-Hudson 1996, p. 25).

'Vane', which combines the two versions of 'You're So Vain' mentioned above, is the fourth track on this EP.[34] Carly Simon's original version, especially through its first two verses, demonstrates a style fairly typical of singer-songwriters in the early 1970s, with emphasis on clearly sung vocals and acoustic instruments.[35] Faster Pussycat's version, on the other hand, represents the glam-metal style of the late 1980s and early 1990s quite well.[36] It features a faster tempo (approximately 128 bpm to Simon's approximately 102–108 bpm), heavy drumming, multiple electric guitar tracks and a clenched, half-sung/half-screamed male vocal track. 'Vane' exploits the differences between these two recordings, repeatedly juxtaposing one against the other. The piece thus features frequent shifts not only from one style of performance to another, but also from one tempo to another, creating what Oswald calls a 'poly-rhythmic limp' (Oswald and Igma 2001, p. 12). He describes it as 'two tempi alternating in loping fashion, which … sounds like a strutting rock star with one leg shorter than the other' (Oswald and Igma 2001, p. 8). In my analysis, this strutting rock star, considered in conjunction with the sounds of the recording that demonstrate Oswald's technological manipulations, becomes the sounding cyborg in 'Vane'.

Oswald's compelling interpretation implies that the performing persona invoked in this piece stems exclusively from neither one of his source recordings, but instead from his digital combination of those recordings. Such a persona carries with it further implications. First, this persona represents a particular type of liveness in 'Vane', as evidenced in Oswald's description of the bodily performance mannerism (a rock star's lop-sided strut) he imagines represented in this piece. This liveness, however, is not easily traceable to an actual performer (or to a single, conventionally gendered performing body), despite the obvious corporeal basis for Oswald's remarks. Rather, it is indicative of a technologically enabled *virtual* performer which does not exist outside the technosphere particular to 'Vane'. This imagined persona shares combined qualities of Simon's and Faster Pussycat's performances and representative performance styles, in addition to qualities generated by Oswald's use of digital technologies in altering these performances. Many of these additional qualities are unambiguously 'of the machine'.

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The persona invoked in 'Vane' is thus not one of a traditional human musical performer, but a hybrid man-woman-machine performer representing contrasting performance styles; a virtual performer imbued not only with performing limbs and (bi-gendered) vocal chords, but also, with the assistance of digital sound technologies, the ability to splice, rearrange and alter minute sections of recorded musical performances. The persona invoked in 'Vane', in other words, is a cyborg, and this cyborg is *live* inside the recording. Furthermore, this liveness is distinct from any liveness that we may attribute to a traditionally performing musician: this liveness exists only virtually.

The sounding cyborg in 'Vane'

A detailed analysis of the piece will demonstrate just how this virtually live-sounding cyborg finds its voice inside 'Vane's' technosphere. In constructing 'Vane', Oswald extracted segments of varying length from both versions of 'You're So Vain' and rearranged them in collage fashion, sometimes altering their speed slightly or playing them backwards, and sometimes overlaying them. In some of Oswald's plunderphonics, he distorts his source material to such an extent that the original performances are completely obliterated but, as explained above, Oswald still intends that the sound or timbre of the recordings should trigger recognition in a listener. With 'Vane', however, most of the samples remain long enough and sufficiently intact so that a listener can still grasp a sense of the tempo, rhythm, vocal style and other characteristics evident in the original recorded performances.

Although these two recordings of 'You're So Vain' are obvious products of the recording studio, the idea of performance remains central to my account of how they convey liveness, both in their original forms and in Oswald's piece. Each recording represents a tradition that is just as invested in performance, or at least in the image of performance, as it is in studio work. The singer-songwriter tradition from which Carly Simon's recording comes conjures images of an earnest songstress sitting at the piano or standing in front of a single microphone with her guitar, sharing her deeply personal songs with an attentive audience. As mentioned earlier, the first two verses of Simon's recording in particular convey this style perfectly. Moreover, the lyrical content of Simon's song and the folksy roots of this singer-songwriter style (with all of its associations with social and political activism) combine to create an air of empowerment for the female protagonist, who offers a harsh critique of the man who so casually tossed her away.[37]

The glam-metal musical style of the 1980s represented by Faster Pussycat likewise invokes certain general performance conventions: namely, white men with long hair, makeup and skin-tight (and skin-bearing) costumes strutting around with their guitars. Whereas associations with Simon's performance style convey a sense of feminine empowerment, however, metal (particularly that performed by Faster Pussycat) often conveys just the opposite: chauvinism, misogyny and the sexual exploitation of women.[38] Both of these musical genres convey particular performance conventions and gestures, and thus well-understood qualities of liveness, however different their social implications may be. In his treatment of this source material, Oswald was careful to maintain enough of what defines these genres that these performance associations are also maintained. Of course, these associations are also combined so that listeners are invited to form new associations, which lead (among other things) to the construction of a new performing persona.

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Here, the cyborg as reconfigured rock star looms large. The metaphorical implication of the cyborg, as already discussed, is that it achieves a blend of opposites. In this case, it is both woman and man, feminist and misogynist. Yet, it is also more than this, as Oswald adds another layer of metaphorical hybridisation: he challenges the distinction between people and machines through evocations of human bodies modulated by technology. In the remarks quoted earlier, Oswald brings to our attention the 'polyrhythmic limp' created by his combination of the two source recordings' different tempi. This rhythmic effect, which Oswald associates with his 'strutting rock star' persona, constitutes one of the central musical ideas in 'Vane'; as such, a close look at how it unfolds throughout the track will tell us much about the sounding cyborg in this piece.

Throughout 'Vane', Oswald constantly alternates between the two source recordings, either one phrase at a time or several times within the same musical phrase (refer to the Appendix for a full breakdown, in table form, of all aspects of the following analysis). He sets up the rhythmic contrast immediately in his introduction, where he edits the duple-metered introduction to Carly Simon's recording so that it achieves a pattern of rapid triplets that, when taken in conjunction with the resulting newly configured piano melody, create an impression of a 9/8 meter. Oswald then switches (0′28″) to the steady, backbeat-laden duple meter of Faster Pussycat's introduction, and then back again (0′44″) to the newly created triple meter of Simon's intro. Although a relatively steady beat is maintained throughout all of this material – the dotted-quarter beat of the 9/8 meter, at approximately 67 bpm, flows rather smoothly into the backbeat (second and fourth beats) of Faster Pussycat's duple meter, at approximately 128 bpm – the contrast between triple and duple meter prepares the listener for the conversation that is about to take place between these two seemingly disparate voices. Also evident at this early stage in the piece are the two different performing styles, as the piano, acoustic guitar and light drumming from Simon's introductory material stand in stark contrast to the electric guitars, heavy drumming and screaming (Faster Pussycat's lead singer Taime Downe repeatedly screams 'Yah!') from Faster Pussycat's opening material.

Immediately after Oswald's introduction, he brings the two original parts much closer together (0′57″), alternating between both performers, repeatedly asking, 'Don't you?' in the same stilted polyrhythmic limp employed throughout the piece. This rhythmic stutter is created not only by the alternating tempi, but also by an 'out-of-tempo' snare-drum hit at the beginning of the section, a repeated interruption of Faster Pussycat's line by Carly Simon's line before the rhythmic impulse of the former has quite come to completion, and a complete breakdown of any underlying pulse at the end of this section of alternating lines (1′05″). As the piece progresses, the distinct rhythmic qualities of the original recordings become more difficult to determine as the two original acts alternate with increasing rapidity. What begin as two very distinct performance styles meld toward the end of the piece (and at select points along the way) into a hybrid style distinct to 'Vane', and the persona of the strutting rock star with one leg shorter than the other, not to mention of two different genders, becomes clearer.

Oswald explores this merger of genders explicitly in the phrase beginning at 1′ 42″. At this point, he focuses on the last two lines of the original song's first verse, drawing from both recordings alternately. In the source recordings, this line is sung by Simon as 'Then all the *girls* dreamed that they'd be your partner' and changed to 'Then all the *boys* dreamed that they'd be your partner' by Faster Pussycat.

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In Oswald's version, the words 'boys' and 'girls' can be heard simultaneously, before Oswald returns to alternating between the original performers. After Oswald's new 'Then all the girls/boys dreamed that they'd be your partner' phrase, he repeats 'they'd be your partner' four more times, repeating the word 'partner' an extra time in the third iteration. This short phrase is never the same twice, as Oswald presents a new combination of performers with each repetition.

He also further explores in this section the rhythmic irregularity so central to our interpretation of this strutting bi-gendered rock star persona, by presenting two different tempo configurations of his combined materials. First, Oswald maintains the original tempi of his source materials in the first line of this section, so that the alternating and overlapping samples create a slightly staggered pulse. He then speeds up the Carly Simon material when she sings 'they'd be your partner' so that the subsequent trading of lines all matches in tempo. Despite the potential for a steady pulse here (due to the matching tempi), however, Oswald avoids such steadiness in the transition from one source (and one gender) to the other. At these moments, he cuts short or extends the occasional beat – giving the impression, perhaps, that the gender switch still comes a bit awkwardly at this stage – so as to maintain the polyrhythmic limp.

However awkward our 'Vane' persona may seem at this point, Oswald's emphasis on the word 'partner' in this passage carries much significance, as it points out quite obviously the new partnership forged on this recording between the two original singers. The gender blurring that occurs at the beginning of the phrase, with the combination of the words 'girls' and 'boys', emphasises the androgynous nature of our new performing persona. The partnership becomes even further cemented in the next section of lyrics (2′05″), as Oswald switches between Simon and Faster Pussycat even more rapidly than in the passage just described. With nearly each word in the first line of text (2′05′–2′21″), Oswald switches performer and tempo. In a couple of instances, he allows both singers to sound simultaneously, which creates overlapping tempi. The rhythmic stuttering is also helped along by a rhythmically complex collage of drum samples immediately preceding these lyrics, and by brief hesitations before the words 'quite' and 'naïve'. This rapid alternation between sources is followed finally by the line, 'I had some dreams, they were clouds in my coffee' (2′21″), sung by all singers (including backup singers) at the same time.[39] This phrase is very reminiscent of the final line of Oswald's 'Pretender', in which a slowed-down Dolly Parton sings 'I am the great pretender' at the same time as a normally pitched Dolly Parton. Oswald describes this phrase as 'Dolly singing a duet with himself' (Oswald and Igma 2001, p. 16).

The gender switching and eventual gender melding that occur in these pieces also create a sonic parallel with many of Oswald's *plundergraphics*: images combining features from two or more musicians to make them appear as one. Oswald compiled one such image for the cover of the *Rubayiat/Elektrax* EP, featuring half of Carly Simon's face, her neck and her right breast (excised from the cover art to her album *No Secrets* (1972)), matched up with half of Jim Morrison's face, his shoulders and the left half of his bare chest. Morrison's shaggy hair covers the whole head, while some of Simon's hair falls down over her right shoulder. Simon's full lips, long hair, and breast (conventional bodily signs of femininity) stand in stark contrast with Morrison's wild hair, flat chest, and body hair (conventional bodily markers of masculinity).[40] Oswald says of 'Vane' and of this image:

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> There's also a very coarse kind of gender switching in the line 'You had me several years ago …', which is alternating words sung by Carly and the Faster Pussycat singer, which I tend to think of as approximately an aural representation of the photo collage of Carly and Jim Morrison, which became the frontispiece of the elektrax cd. The components are still individually intact and recognizable, but there's an androgenic affect. (Oswald and Igma 2001, pp. 8–9)

Our new persona, in other words, is recognisably both masculine and feminine.

Yet this bi-gendered partnership is not all we hear in Oswald's 'Vane'. In addition to its gendered and other physical characteristics, the 'Vane' persona owes just as much of its identity to Oswald's technological manipulations as it owes to the original performers of this music. We hear not just a woman/man hybrid, but also a musician/machine hybrid; this sounding cyborg, in its challenge to both of these boundaries, resonates strongly with the work of the cyborg theorists mentioned earlier. At several moments in 'Vane', recognisably human sounds give way to recognisably electronic sounds. To begin with, the phoneme trading that occurs in the passage just discussed is far too complex to resemble simply 'man alternating with woman', or 'man singing with woman'. Something in the stuttering rhythms and combined timbres of Oswald's combination betrays its technological origins.

Technological associations also occur earlier in the piece, as at 1′06″, after the final repetition of 'Don't you?' The final word of this phrase, 'you', sung by Simon, stretches out for the next 10 seconds, as Oswald here treats the original recording to a 'snap scan': 'an aural analogue of frame-by-frame playing of a film or videotape, drawing out an isolated moment in the original sound source … and greatly expanding it in time without lowering its pitch' (Holm-Hudson 1997, p. 21). Oswald cuts the recorded word into minute sonic 'frames', in other words, and inserts equally short spaces of silence between these frames. Toward the end of this treatment, Oswald slowly shifts from the 'oo' vowel of 'you' to an 'ah' vowel (also seemingly sung by Simon), further distorting the word. Oswald repeats the effect at 1′56″ and at 2′50″ (though in these instances it sounds more like 'blue' than 'you'). The end result in each of these cases is a sound resembling nothing more than a compact disc skipping in a dusty player.

Immediately following the first of these snap scans (at 1′15″), Oswald explores a different configuration of several minute sonic 'frames'. In this case, with the line, 'You walked into the party like you were walking onto a yacht' (the opening line of Carly Simon's original recording), he presents what he refers to as Simon singing 'forwards … with a backwards texture' (Oswald and Igma 2001, p. 8). In creating this effect, Oswald cut this phrase into several extremely short segments, and reversed the sound envelope of each segment while keeping them all in the correct order. In other words, each phoneme is split into further segments, and all of these segments are heard in the correct order; however, each individual segment is heard from end-to-beginning instead of from beginning-to-end. As much of how we understand sounds derives from how each of those sounds begins, a reversal of a sound's overall profile – even that of a very short sound – can drastically affect its impact on a listener. Ultimately, what we hear in this case sounds similar to the opening line of Simon's original recording – it has the proper melody, contour and basic rhythm, and the lyrics are reasonably intelligible – but her voice seems somehow filtered through some type of electronic sonic blender.

The most obvious moment in which Oswald presents decidedly machine-like sounds creates the climax of the piece. As Simon and Faster Pussycat both sing

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together on 'I had some dreams, they were clouds in my coffee', they lead into the first and only iteration of the chorus in 'Vane' (2′30″). The chorus is anything but the tuneful and catchy chorus of Simon's original, however, as it consists of obviously looped and edited phrases from both recordings ('s-s-so vain' recurs repeatedly throughout, for example), packed so densely that a detailed description of each sample would take far more space than is appropriate here. These layered and looping samples combine both recognisable textual phrases and instrumental (particularly percussion) excerpts. The entire texture is extremely noisy, giving the impression that our cyborg may be short-circuiting. The chorus ends with an intelligible iteration of 'You're so vain / I'll bet you think this song is about you', which leads to a repeat of the traded lines, 'Don't you? Don't you?' (2′43″), followed once again by the familiar snap scan of Simon's 'oo' vowel.

One might be tempted to abandon the idea of a performing persona during this chorus, due to the obvious polyphony and extreme density of Oswald's mix. To attribute all of these sounds to an individual entity, even a sounding cyborg, might seem a stretch. Yet Oswald maintains within the densest moments of this passage a specific characteristic of the persona that pervades the entire piece: the polyrhythmic limp. Due to the rhythmically uneven manner in which he loops some of these samples, the sound of our lopsided cyborg persists, and is further enhanced by the obvious sounds of electronic manipulation. Then, following the snap scan (3′00″), Oswald returns us once again to the triple-metered Carly Simon material from 'Vane's' opening. This guitar-and-drum duo continues for 20 seconds, perhaps lulling its listeners into believing that Simon has shed her glam-rock-star half after the intensity of the chorus. At the very end of this short piece, however (3′20″), he returns with one last 'Yah!' to remind us that he is indeed very much a part of the song's cyborg persona.

So what of this persona? Apart from its liminal existence as man, woman and machine, why is it significant? In this case, the contrasting physical performance styles normally associated with each rock sub-genre, along with the similarly conflicting social meanings usually conveyed by these styles, also play a large part in my own arguments for the significance of the sounding cyborg. At first glance, Oswald presents two incompatible versions of the same song. Considered on its own, Faster Pussycat's rendition appropriates Simon's statement of feminine empowerment and recasts it in Faster Pussycat's own realm of misogyny and chauvinism. Taime Downe transforms the male antagonist of Simon's version into a victimising and unfaithful woman who uses her sexuality only to entice her potential victims (Simon's 'Your hat strategically dipped below one eye' from the first verse, for instance, becomes 'Your dress strategically hiked up on one thigh').[41] We are confronted with two conflicting but simultaneous performances, each conveying its own corporeal liveness as encoded in the gendered messages of its original performance style.

As we are reminded of the apparent incompatibility of these highly gendered texts, we are also reminded of the problematics of gender performance, which is so often tied to *genre* performance. Oswald blends these genders and genres in such a way as to render those of his own cyborg performer even more important, if more confused, than ever before. What coherent lyrics remain still present the woes of a jilted lover, but one that now cries foul about both fast-talking womanisers and victimising she-devils. This sounding cyborg has troubled the polarising and divisive restrictions so often imposed by conventional gender-genre distinctions in

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its highly charged and subversive evocations of two genders and of no gender; of two genres and of no genre. This coupling/uncoupling of gender and genre is so successful precisely because of the way in which the sounding cyborg – an embodied instantiation of virtual liveness – is unmistakably written with audible technology, and moreover, because of this cyborg's maintenance of an embodied persona even in the face of such mediatisation.

Conclusion

Ultimately 'Vane', like 'Petit Jardin' and other pieces of highly mediatised music, facilitates a new perspective on bodies, technology and liveness altogether. While some acousmatic music completely avoids any trace of liveness, 'Vane' and 'Petit Jardin' rely on our recognition of performed music even as they present un-performable sonic phenomena. In 'Vane', Oswald relies on his listeners' familiarity with his source material and on their understandings both of genre and of gender as they are invoked by this material. Virtual liveness inheres in the unique combination of Simon's acoustic folksy style with Faster Pussycat's aggressive, electric style, in the combination of the different corporeal associations carried by these styles, and in the technical manipulation toward a newly imagined re-formulated individual. The resulting virtual performance is a performance of human, of machine, of genre, of gender and of bodies both material and virtual, all recast from their usual contexts into one of subversive meaning and unsure boundaries.

With 'Vane', Oswald creates a new live body that is not actually live. This cyborg demonstrates just how gendered some musical genres are by playing with these gender and genre codes in its evocation of its own hyper-gendered body. Moreover, it presents *human* and *machine* on equal footing, compelling us to eschew the technophobia so often present in discussions of technology in music. Finally, identifying the existence of this cyborg in the virtual realm resonates with a society increasingly invested in cyber-realities. Social interaction is reshaped almost daily by advances in telecommunications and by the constantly changing ways users employ these technologies. Entire conversations now take place by way of 'text talk' through instant messaging. For quite some time now, even dating has enjoyed its own cyber-existence. Perhaps one of the most relevant analogies to the sounding cyborg is the on-line gaming phenomenon, in which each player takes on a fictional persona, known as an *avatar*, and is known to other players only as that avatar. To look for elements of human communication in highly mediatised music – even if only simulated communication – no longer seems so unnatural in light of these other modern modes of virtual communication. In fact, it seems a vital step to take in music scholarship, particularly considering the steps already taken in this direction by other disciplines.

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in Montreal (2007) and at the joint Annual Conference of the International Association for the Study of Popular Music's Canadian and American branches in Boston (2007); the final version benefitted greatly from the comments and questions of those in attendance at these presentations, particularly James Deaville, Anita Hardeman, Paul Louth, William Richards and Richard Semmens.

Endnotes

1. As discussed in Sanden (2009, p. 8), my use of the term is slightly reconfigured from Baudrillard's and Auslander's, in that I believe it can also usefully be applied (as it is in this essay) to music that exists largely outside the economic code of mass-produced cultural artefacts to which they were referring.
2. In Sanden (forthcoming), I propose seven identifiable categories of liveness: temporal liveness, spatial liveness, liveness of fidelity, liveness of spontaneity, corporeal liveness, interactive liveness and virtual liveness, all of which I derive from the discourse of liveness across several academic disciplines. For instance, Auslander adopts a temporally oriented concept of liveness in his recent accounts of liveness in an internet environment (Auslander 2002, 2005), also arguing that because of the commonality of live broadcasts (in various media), 'Our current conception of liveness emphasises a temporal relationship of simultaneity more than a physical relationship of co-presence' (Auslander 2005, p. 8). While I agree with his connection of temporal liveness to much internet use, his generalised statement about 'our current conception of liveness' leaves little room for the kinds of elaborations on liveness that I undertake here and elsewhere.
3. According to Rosi Braidotti, a *figuration* is 'a figurative style of thinking … a style of thought that evokes or expresses ways out of the phallocentric vision of the subject. A figuration is a politically informed account of an alternative subjectivity'. She describes the cyborg figuration as 'a high-tech imaginary, where electronic circuits evoke new patterns of interconnectedness and affinity' (Braidotti 1994, pp. 1, 3). Alternatives to phallocentrism, alternative subjectivities and interconnectedness between humans and electronic circuits will all play important roles in my account of the virtual sounding cyborg.
4. Unless otherwise noted, each plunderphonic piece I discuss in this article can be found on Oswald's retrospective box set collection of plunderphonics, *Plunderphonics 69/96* (2001). In each case, I will specify the piece's original date of composition/realisation as identified by Oswald, even though some of these pieces were slightly revised for inclusion on the box set.
5. See for instance, Doyle (2005) and Zak (2001).
6. See Smalley (1992, p. 552, n. 1) for a discussion of the etymology and usual use of 'acousmatic' in reference to electroacoustic art music.
7. Schaeffer constructed his first *musique concrète* composition, *Étude aux chemins de fer* (1948), from railway sounds. See Manning (2004, p. 20) for a description of the piece. See Thoresen and Hedman (2007, p. 132) for a succinct description of Schaeffer's concept of reduced listening, including bracketing.
8. For instance, Luc Ferrari's *Presque rien No. 1 (Le lever du jour au bord de la mer*) (1970; heard on Ferrari 1995) and Hildegard Westerkamp's *Talking Rain* (1998) both invite the listener to draw significance, and even narrative interest, from recognisable sounds of children, birds and the seaside (in Ferrari's piece), and of rain falling in natural environments (in Westerkamp's piece).
9. In some instances, this interplay occurs between what Emmerson terms *mimetic* sounds – those that are 'imitative of, and referential to some aspect of the world not "normally" found in music' – and what he terms *aural* sounds – those that are 'abstract and not obviously source-referential' (Emmerson 2007, p. 14). See Emmerson (1986) for an extensive discussion of the distinctions between *mimetic* and *aural* sounds. Other useful accounts of source recognition in acousmatic music are provided by Denis Smalley (1986, 1992) and Luke Windsor (2000).
10. Several recent accounts of performative meaning in music – mediatised or otherwise – emphasise the importance of a perceived relationship between performer and listener, and thus the significance of the individual subject position within that relationship. For instance, Naomi Cumming's *The Sonic Self: Musical Subjectivity and Signification* (2000), as its title implies, argues for the importance of the listening and performing subjects (as addressed below); Emmerson (2007, pp. 29–31) asks what any given musical experience means 'to me'; Katharine Norman (2004, pp. 8–11), also discussed below, describes an indirect communication and a kind of second-hand performance that she enacts as she listens to a particular piece of electroacoustic music rich in recognisable sound sources; in *Musicking* (1998), Christopher Small emphasises the importance of all relationships in understanding musical meaning in performances (relationships between performers, between sounds, between performers and listeners, etc.), which includes a focus on the listening subject.

    While I present in this article several examples of art music scholarship that have much to offer

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the realm of popular music studies, in this instance, popular music studies have become much more comfortable, much more quickly, with the idea that identifying a listening subject will offer crucial insight into the determination of the potential social meanings of any given piece of music (demonstrating in this instance, perhaps, much more of a debt to precursors in the fields of folklore study, ethnomusicology, sociology and cultural studies, than to any Western-musicological model). Among the many major foundational studies to emphasise the importance of listener subjectivity, for instance, are Simon Frith's *Sound Effects: Youth, Leisure, and the Politics of Rock 'n' Roll* (1981, esp. Part III) and Richard Middleton's *Studying Popular Music* (1990, esp. Chapters 5 and 7).

11. A low-pass filter attenuates parts of a sound signal's frequency spectrum above a certain cut-off point. A rising low-pass filter would raise this cut-off point over time, thus increasing a sound's high-end frequencies over its duration.
12. As Sterne (2003) has pointed out, however, listening to recordings at the turn of the 20th century was often a more public event, as several listeners could gather around a gramophone, each with their own set of headphones. They could thus gather to listen 'alone together' (Kenney 1999, p. 4), which may have seemed like a less anonymous event than a private listening situation. The current ubiquity of MP3 players seems to be giving rise to a new form of listening alone together: a bus or subway car full of people each listening to their own private audio stream, even while groups of these listeners may still be talking among themselves, is an increasingly common sight. Significantly, the *sound* of a subway ride, at least to a rider *not* plugged into a private audio stream, has not been largely altered by this development.
13. Of course, each listening space and each set of speakers will make its own sonic imprint on the music as it is heard, so no two sounding instantiations of any recording are identical. Nevertheless, the myth of identical repetition propels the dissemination of music recordings. Thus, most listeners think of listening to one copy of a CD or audio file, regardless of when or where they hear it, as being identical to listening to another.
14. Both John Corbett (1990) and Jonathan Burston (1998) examine listening situations in popular music – Corbett with the typical popular music recording (if such a thing exists) and Burston with the highly technologised megamusical – in which sonic illusion may also be the not-so-innocent cleaning up of a musical surface for the purposes of creating a more profitable sound. In these cases, recorded sounds are 'scrubbed' of their noisier elements, which carry with them traces of individual performing bodies (corporeal liveness), in order to achieve the 'studio sound' expected by mass audiences (Burston 1998, p. 207). See Sanden (2009) for an account of this type of corporeal liveness in the recordings of Glenn Gould.
15. Shorter Oxford English Dictionary, 6th edn, *s.v.* 'personality'.
16. Shorter Oxford English Dictionary, 6th edn, *s.v.* 'persona'.
17. Comparisons here could be drawn between personae (and liveness more generally for that matter) and Roland Barthes's concept of writerly texts: those texts which are 'rewritten' with new meaning by each individual reader. Readerly texts, by contrast, locate the reader only as a receiver of an unchanging and essential reading. For Barthes's most cogent description of readerly and writerly texts, see his *S/Z* (1974). As will be demonstrated below, our writerly interpretations of a particular musically performing persona may be, at least in part, influenced by the composer's own interpretation of that persona, where such an interpretation is known.
18. Knowing this, however, has not prevented the popular imagination's long fascination with the prospect of autonomous technologies; moreover, the field of artificial intelligence continues to investigate these possibilities.
19. Think of cellular phones, digital radio, 'social networking' internet sites and online chatrooms, to say nothing of 'interactive' technologies (such as automated phone menus that respond verbally to users' spoken commands), which provide (or at least attempt to provide) a sense of direct communication between people and machines themselves.
20. This approach to virtuality understands the word 'virtual' in a slightly different sense from that which focuses on the specific realm of virtual reality (see Jones 1993, for instance), which attempts to simulate with the greatest possible accuracy *actual* and *authentic* physical environments and, furthermore, to enable interactions with those simulated environments. The virtual environments and relationships explored by Morse, like the virtual personae described in this essay, are made possible only *because* of their involvement with electronic technology; they do not necessarily attempt the complete simulation of material reality. While they rely on users recognising *traces* or *elements* of actual reality (be they in the form of recognisable human behaviour, recognisable acoustic sounds, etc.), the 'realities' of their *technological* ontologies play just as significant a role in communicating their various meanings.
21. While there is nothing essentially feminist about the interface between humans and machines, many writers see this potential transgression of boundaries as lending itself to a model for a social politics that would productively reconfigure the gender and, to a lesser extent, racial boundaries that define our current society (see, for instance, Haraway 1991; Braidotti 1994; Balsamo 1997).
22. Particularly Haraway (1991).
23. See Turner (1974) and Shields (2003, pp. 12–13).
24. It has long been accepted that most popular music cannot be *exactly* duplicated in performance as it is realised on recording; in the majority of popular music genres, recordings hold a sense of authenticity no longer enjoyed by live

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performance (see especially Gracyk 1996, Chapter 1; Auslander 2008, Chapter 3). Many popular musical styles, however (notably folk and rock music), involve performances that closely resemble their recorded form, so that performance remains an important part of these styles. Oswald's music is closer ontologically to popular music styles (such as many forms of electronica) that exist primarily in recorded format and do *not* lend themselves easily to any further instantiations in live performance.

25. The plunderphonic in question here is 'White' (1989).
26. Here I refer to mashups as they were originally conceived and practiced – as an entirely sample-based genre featuring the simultaneous mixture of two or more distinct recorded sources – rather than the current *Glee*-inspired understanding of mashups as arranged (and performed) medleys.
27. In addition to Oswald, Jones discusses the music of Chris Cutler, Fred Frith (both of whom were central members of the avant-rock group Henry Cow through the 1970s), John Zorn, Zeena Parkins, and several others.
28. Of significant interest within the context of the present article, mashups also very much invoke the virtual dimension, as the mashup community exists largely online. For more on the creative and aesthetic impetus behind mashup creation and consumption, see Shiga (2007) and McGranahan (2010).
29. See, for instance, 'Pretender' (1988), in which Oswald applies various tempo modifications to Dolly Parton's recording of 'The Great Pretender' (1984), revealing a 'slightly slurring but beautiful tenor' (Oswald 2001) as the piece reaches the slower end of its tempo continuum.
30. Of his extended pop-music plunderphonic piece *Plexure* (1993), for instance, Oswald explains that he attempted to keep his 'electroquotations near a tip-of-your-tongue state of recall' rather than making them too obvious (Oswald and Igma 2001, p. 14). Oswald has continued to alter *Plexure* since its initial release in 1993. See http://www.pfony.com/prePlex/index.html for a recent version of 'PrePlex', a track from the version of *Plexure* Oswald intends to release on vinyl and DVD in the near future. This track, while incorporating the same techniques and aesthetic goals as *Plexure* (1993), sounds entirely different, not least because Oswald has incorporated many samples from pop music tunes that have been released since his initial version of *Plexure*. Björk's 'It's Oh So Quiet' (1995) and The Verve's 'Bittersweet Symphony' (1997), for instance, make conspicuous early appearances in 'PrePlex'.
31. This is not to argue that rhythmic regularity is absent from the doo-wop style, but rather that other important features of that style are eradicated in this piece and that a new rhythmic impulse of Oswald's own creation now dominates the recording in such a way as to distance it significantly from its original doo-wop context.
32. Oswald and Igma (2001), for some unspecified but obviously deliberate reason, avoid capitalisations of the personal pronoun 'I', and of some other proper nouns that are normally capitalised. In the interest of accuracy, I have observed this idiosyncrasy in my quotations from this source.
33. Oswald sampled several Doors tracks for 'O'hell' (1990) and several Metallica tracks for '2net' (1990).
34. We now have access to 'Vane' on *Plunderphonics 69/96*.
35. The track becomes more cluttered as it progresses, with heavier drumming, greater intensity in both Simon's vocals and the background vocals (Mick Jagger adds his background vocals on all but the first iteration of the chorus), and the addition of electric guitar and violins. The piano and acoustic guitar also drop out of the mix in the second half of the track. Significantly, as will be discussed below, in his piece Oswald focuses on material from the first half of the track.
36. Better known, similar groups from this era, also sometimes referred to as 'hair metal' bands, include Mötley Crüe, Poison and Cinderella.
37. Lyrics to Carly Simon's recording can be found on her official website, http://www.carlysimon.com/music/Lyrics/You%27re_So_Vain.html. A reliable transcription of the lyrics to Faster Pussycat's recording can be found at http://allthelyrics.com/song/444480/.
38. On the construction of gender in metal, see especially Walser (1993, Chapter 4). Despite their androgynous appearance (like that of many other glam metal bands), Faster Pussycat has consistently projected a highly misogynistic image. Their lead singer's stage name (Taime Downe = Tie Me Down), their group name itself (lifted from sexploitation film-maker Russ Meyer's *Faster Pussycat! Kill! Kill!* (1965)) and many of their album covers and titles, song titles and song lyrics work explicitly to achieve the sexual objectification of women. More specific to my discussion here, their video for 'You're So Vain' also demonstrates the phallic guitar-playing gestures found in much rock (especially metal) performance, in addition to a sequence during which Downe humps a bed frame while watching the silhouette of an exotic dancer through a bedroom curtain.
39. Oswald explains that for this phrase he clipped a short bit from each phoneme in Carly Simon's recording so that it would progress at the same tempo as Faster Pussycat's.
40. Oswald reproduces the entire image in Oswald and Igma (2001, pp. 8–9), but he states that Elektra censored Simon's breast on the *Rubaiyat* EP cover. Ironically, Elektra had previously allowed the image to be printed, as it originally appeared on the cover to an album they released.
41. In casting the (male) singer as the victim of women's sexuality, Faster Pussycat's 'You're So Vain' conforms to one of metal's generic constructions of gender roles (Walser 1993, pp. 117–20).

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Appendix. Lyrics and key sound events in 'Vane'

Notes: Carly Simon (CS) lyrics in plain type; Faster Pussycat (FP) lyrics in **BOLD AND CAPS**; lyrics sung by both simultaneously in ***bold and italics***; lyrics that are seemingly 'of the machine' underlined.

Time	Lyrics	Description
0′00″		CS's intro material (piano, bass, drums, acoustic guitar), looped in fast triplets; creates an impression of a 9/8 metre; dotted quarter note = approx. 67 bpm.
0′28″	YAH! YAH! YAH! YAH! YAH! YAAAAAAAAH! YAH! YAH! YAH! YAH! YAH! YAAAAAAAAH!	FP's intro material (lead vocal, multiple electric guitars, drums); duple metre and tempo maintained; quarter note = approx. 128 bpm, so that backbeat continues (approx.) tempo of initial dotted quarter.
0′44″		Return to CS intro material in 9/8
0′57″	DON'T YOU, don't you … DON'T YOU, don't you … DON'T YOU, don't you … DON'T you … DON'T you … *Don't* youuuuuuaaah … YAH!	Alternate between FP and CS, with original tempi intact for each sample; further rhythmic stutter created by snare-drum hit before first line, 'interruption' of FP by CS in first three lines, and by breakdown of any underlying pulse in final line.

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Continued

Time	Lyrics	Description
1′15″	You walked into the party like you were walking onto a yacht	CS sings 'forwards … with a backwards texture', creating the impression of the original song's opening lyrics; loss of attack (due to editing process) creates a sustained instrumental texture.
1′24″	YOU TOOK ME HOT TO PERFORM ONE THIGH … aauuuuahh …	Rhythmic irregularity created by stuttering instrumental (drum & guitar) interruption of lyrics after 'hot' and 'perform'; these rhythmic stutters continue after second line as snap-scanned CS enters in background at 1′34″.
1′42″	Then ***all the*** girls/**BOYS** dreamed that they'd be your partner … **THEY'D BE YOUR PARTNER** … They'd be your partner … **THEY'D BE YOUR** partner, partner … They'd be your **PARTNER** … **YAH!** … You! Bluuuuuuaaah …	Rhythmic stutter and CS snap scan from previous section bleed into first word ('Then'); first line switches tempo with sampled source, creating 'polyrhythmic limp'; beginning with second line, CS tempo sped up to match FP tempo, but transitions from one source to the other create irregular pulse.
2′05″	Oh, ***you*** **HAD ME SEVERAL** ***years ago,*** when **I WAS** ***quite*** **NA-**ïve …. **YAH!**	Stuttering rhythm created by collage of drum-hit samples to introduce first line; 'polyrhythmic limp' continues as tempi alternate and overlap, and brief hesitations precede 'quite' and 'naïve'.
2′14″	**BUT** you **GAVE** away **THE** things **YOU LOVE,** and **ONE** of ***them*** was **ME** … **YAH!**	Despite increased alternation between sampled sources, tempo adjusted for steady pulse through first and second lines.
2′21″	***I had some dreams, they were clouds in my coffee. Clouds in my coffee*** **YAH! YAH! YAH! YAH! YAH! YAH!**	Both sources combined for first and second lines; tempo altered on CS material to match FP.
2′30″	***You're so vain*** … ***so vain*** … ***s-s-so vain*** … ***song is about you*** … ***'bout you*** … ***I'll bet you think this song is about you*** **DON'T YOU**, don't you … Bluuuuuuaaah …	Chorus/Climax: highly complex layers of lyrics (*drastically* simplified and condensed here) compete for audibility with dense layers of drum samples. Polyrhythmic limp persists throughout. Third line emerges intact from texture before fourth line returns us to material from 'chorus' section from ca. 1′00″.
3′00″		Return to CS intro material in 9/8; transition from previous snap scan to beginning of this section by way of single snare-drum hit.
3′20″	**YAH!**	Final scream, punctuated by loud snare and electric guitar.

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