

Julio d'Escriván and Paul Jackson

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EMS08

Electroacoacoustic Music Studies Network International Conference

3-7 juin 2008 (Paris) - INA-GRM et Université Paris-Sorbonne (MINT-OMF)

3-7 June 2008 (Paris) - INA-GRM and University Paris-Sorbonne (MINT-OMF)

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## Applied Plunderphonia: tagging electronic music with electronic music

Julio d'Escriván and Paul Jackson  
Anglia Ruskin University, Cambridge, England

### Abstract

Plunderphonics, a technique where the composer borrows music freely from any available musical sources, is arguably a direct descendant of the work of Schaeffer in *À la recherche d'une musique concrète*. John Oswald, who coined the term in his presentation at The Wired Society Electro-Acoustic Conference in Toronto in 1985, said that "A sampler, in essence a recording, transforming instrument, is simultaneously a documenting device and a creative device" (Oswald, 1985). In defining the sampler as a documenting device, Oswald introduces the possibility that by juxtaposing plundered material, new knowledge may be derived from the relationship between the chosen musical extracts, one which is 'documentary' in nature and which further illuminates the music it accompanies. Plundered sound objects can thus shed light on the original musical context in which they are quoted, simply by being heard. They may provide a catalyst for an intuitive understanding of the original piece, and create new aural meanings. By virtue of being superimposed or juxtaposed with a piece in which they do not originally belong, they function in a way that is reminiscent of hyperlinks or even tags on web documents, as they are placed arbitrarily with the intention of furthering an idea or extending a concept or signifying a degree of implicit categorisation. This is what we understand by the generation of 'documentary' knowledge. This paper aims to propose ways in which music can be 'marked up' at the time of composition or as an analytic activity with samples from original or borrowed sources. The end result is to show how this association of extraneous sampled material to the created or analysed music provides a deeper understanding of the work as well as extending its semantics.

### Introduction

There may be no *Hard Day's Night* without *Blue Suede Shoes*, no Tenney or Oswald without Elvis, no *Solaris* without *Forbidden Planet*, no *Gesang der Jünglinge* without *Symphonie pour un homme seul*, no *Silence* by Cage without Fischinger's *Visual Music* or Alphonse Allais' *Marche Funèbre*. Every work leaves a trace. Every work of music is, at least, a trace of others that precede it and even, in a 'pataphysical sense, of others that will follow. Discussing the symbolic form in his explanation of the analytical semiological tripartition - the *poietic/neutral level/aesthetic* - Jean-Jacques Nattiez draws a useful corollary for our subject. He defines the trace as the physical and material embodiment of the work, which is accessible to the senses, and argues that the aesthetic process is 'heavily dependent upon the lived experience of the receiver' (Nattiez, 1990: p12). Although he subsequently discusses how this is useful in a *prima facie* consideration of the artefact itself - a 'neutral level' of the work - arguably we could also say that there is nothing neutral about the perception of an artefact that brings into play the 'lived experience' of the receiver. Perhaps the 'immanent and recurring' (Nattiez, 1990: p12) properties of any work are only those that we *perceive* as immanent and recurring. Once identified as such, they become a referential system for the receiver, in turn plunging the notion of the neutral level into a recursive motion, which is not only unresolvable, but also undesirable to resolve. The work of art, and in particular the work of music, speaks to our imagination directly, that is to the world of images/symbols/referents that is our life story. Arguably, this is what may interest the listener most and may promote engagement: the particular, the traceable, the possible thread.

This idea that looks for meaning in specific experiences or instances was explained very lucidly by Descartes, when, in the *Discourse of Method* (1637), he wrote:

'I spent the remainder of my youth in travelling, in visiting courts and armies, in holding intercourse with men of different dispositions and ranks, in collecting varied experience, in proving myself in the different situations into which fortune threw me, and, above all, *in making such reflection on the matter of my experience as to secure my improvement*. For it occurred to me *that I should find much more truth in the reasonings of each individual with reference to the affairs in which he is personally interested, and the issue of which must presently punish him if he has judged amiss* [author's italics], than in those conducted by a man of letters in his study, regarding speculative matters that are of no practical moment, and followed by no consequences to himself, farther, perhaps, than that they foster his vanity the better the more remote they are from common sense; requiring, as they must in this case, the exercise of greater ingenuity and art to render them probable'.

In the last fifteen years, truly democratic networks of knowledge have been promoted through the world-wide-web: text that calls upon other text for clarification and expansion; images, video, personal testimonies, technical as well as historical texts; a web of meaning, a semantic web. But there is a missing web, although perhaps one 'under construction' - the musical web posited by, among others, Simon Emmerson. Peer-to-peer sharing has, of course, created a web of music, yet not one intentionally semantic. Musical tagging, or a musical mark-up language has yet to become as commonplace as de.li.cio.us tagging. The future of formats such as ID3v2 tagging are promising to bring something akin to what we are discussing, but we have yet to see efforts to tag music with other musics, in other words, primarily presenting a piece of music as an eloquent tag for an existing one, without, in the first instance, transcending the language of music. It is also specific to electronic music, for, similar to the way in which photography operates, audio samples (or recordings) present us with slices of other micro worlds, separate from the one they may be made to inhabit.

### **Plunderphones and Sound Objects**

'The plundering has to be blatant though' (Igma, 2000).

In an interview with Norman Iγμα, John Oswald defines a plunderphone as 'a recognizable sonic quote, using the actual sound of something familiar which has already been recorded...' Further, he distinguishes that from musical quotation: 'Whistling a bar of *Density 21.5* is a traditional musical quote. Taking Madonna singing *Like a Virgin* and rerecording it backwards or slower is plunderphonics, as long as you can reasonably recognize the source' (Igma, 2000). The key characteristic of the plunderphone is the ability of the listener to recognise the source, whilst a key element of the Schaefferian approach to the reception of music is, of course, reduced listening. It is clearly not the case that Schaeffer does not consider the semantic value of a sound object in his evaluation of listening modes, yet it is the attempt to reduce the listening experience at all that is noteworthy. Is it actually possible to strip sound from its sonic referents? We would argue it is not. The development of much acousmatic music (or rather, electroacoustic tape music) from the late 1970s onwards may be seen, though, to be attempting precisely this. Many composers, on the one hand, look to abstract spectral characteristics and to explore purely timbral relations, whilst, on the other hand, arguably bewildered, non-initiated listeners try to make 'sense' out of the listening experience they undergo in the concert hall, the result being a variable tension between compositional introspection and an enhancement of the aesthetic process. In works such as Jonty Harrison's *Klang*, for example, one could say that the recognition of the earthenware casseroles is essential to appreciate the compositional skill involved in creating a sound world of casserole-derived elements. Yet what will vary here is how 'meaningful' the casserole sound object will be to the audience; how referential it is will determine, to an extent, how engaged the audience may become (and we do not discount the fact that many will be simply mesmerised at what you can do with an earthenware casserole!). When one listens to a work such as Francis Dhomont's *Point de Fuite* (to consider a work that has been analysed specifically for its use of recognisable sounds (Roy, 1996)), one's experience relies on reference. In fact, within the *Cycle de l'Errance*, from which this piece comes, one finds sound objects that call out to each other, creating a web of signification proper to the collection of pieces.

The 'significance' of sound and sounding objects, acousmatic chains, and other paradigms of musical semiological systems continues to receive much attention. Whilst it might be argued that the *sounding* object is arguably more referential to the listener than the *sound* object (Adkins, 1999), it is worth noting that the plunderphone represents an even stronger narrowing of referential possibilities. In any case, these distinctions between the way in which we perceive sounds and the intentionality in their creation or borrowing are but shades in a continuum of meaning, from the most contrived and arcane to the most popular and mass mediatic. We might also add that the listener has an important role to play here. Rather like the sound of the 'silent' tree falling in the imaginary forest, reception must be accompanied with a degree of intentionality, the listener necessarily drawing associations between sounding objects, and participating in a process of semantic listening (or what, for the purposes of this paper, we might term *plundermapping*). To paraphrase Emmerson (2001) quoting (or is it plundering?) Oxman (1978), 'listening is always selective and must be accompanied by *desire*'. The notion of desire is, of course, inherent in three of Schaeffer's four modes of listening, from the 'simple' identification of sounds, to the more sophisticated acts of *entendre* and *comprendre*. Oswald's *active* listener furthermore becomes a participant in the creative act, mediating between the intentions of the composer, the consequences of conscious and unconscious associations by the listener, and perhaps even the very instruments of sonic capture and manipulation. Consequently, we would agree that analysis must also recognise the accumulated experiences of both the 'creator' and the 'perceiver', each of whom cannot be but participants in

the intention/reception game, imbuing events with meanings, ‘speculations, influences, techniques’ (Delalande, 1998) and webs of associations.

All acts of musical creation are, to some extent, acts of *plunderphonia*, whether the appropriation and manipulation of material or styles is conscious and explicit, or a subconscious and an anxious Bloomian response to the accumulated influences of others. Similarly, we might assert that all listening is an act of *plundermapping*, an active internal commentary on known and half-known material, operating at a musico-philosophical level (Ballantine, 1984). By extension, Delalande’s assertion that ‘morphological analysis which is not guided by a search for pertinences either does not contribute a great deal or gets lost in absurdity’ (Delalande, 1998) is clearly apposite here. When Oswald states that blatancy is an important feature of a plunderphone, he implies that the iconic nature of the plunder is creatively essential. It is for this reason that we are concerned in our research with the more obvious sound imagery. A sound may be clearly referential, but that does not mean it will be clearly iconic. The Kyrie from Machaut’s *Messe de Notre Dame* may be recognisable to some, but is it iconic? Arguably its use in Francis Dhomont’s *Novars* represents a class of sounds - early choral church music - and not a blatant borrowing. For the sound to be iconic it must somehow be part of the aurality of mass media.

### **The Plunderphonic trace**

So, what makes a sound iconic? The strength of its trace.

We can define the ‘plunderphonic trace’ as the collection of plunderphones that can be assembled to represent a given audio segment of an electroacoustic musical work under consideration. Such segments we shall call *plunderpoints*. We can also, more evocatively, define the plunderphonic trace as all those musics and non-musical images that come to mind when listening to a given work of electroacoustic music. Music can - will - often suggest textual and visual imagery, and these too are part of the trace. In Robert Normandeau’s *Montage rythmique*, the fifth movement of *Clair de terre*, described by the composer as a systematic exploration of ‘elements of the grammar of cinematography that have been transposed into the language of electroacoustics... each of [the] twelve movements [being] composed of a soundscape, an object’s sound’, the sound of a mechanism, possibly a door opening and closing, embedded as it is within a poly-rhythmic framework, might bring to mind notions of transition, openness and closure, freedom and imprisonment, automation, machines, nature and man. Arguably, most listeners will associate concrete visual images with sounds, be they sounding or sound objects or plunderphones. It is, in fact, through following this trace that we are able to witness that which seems personal or anecdotal, that which makes the story interesting, that which may turn analysis into a creative exploration of the self and of the author. In fact, if we bring to mind the experiments of Fischinger and his visual music in the 1920s one could propose that certain images will imply sounds and, in that way, will be visual plunderphones. In this sense Eisenstein’s *Battleship Potemkin* may be a visual plunderphone of Normandeau’s *Montage rythmique*.

### **The Plunderphones**

We would also like to present a prototype of an approach to collecting and relating musical fragments of any length to a given piece of music upon which one hopes to shed some light, or simply promote musical understanding. In the process we also hope to illustrate how one could create a work of ‘analysis art’, one in which our own (necessarily) arbitrary associations may tell a new story on a familiar subject, and by using a plunderphonic approach, sublimate the process of musical cannibalisation into one of musical ontology. To illustrate these ideas, we have developed a prototype software application, utilising Cycling74’s *MaxMSP* environment, which allows users to tag, or mark up, sound files with instances of other musics, text and images. In full acknowledgement of the subjectivity of such an associative process, we embark on this examination of our musico-semantic web - our *plunderphonia* of experience - denouncing our own subjectivity in the understanding that all analysis tends to self-analysis. The following example illustrates the main work screen, which has been populated with Normandeau’s *Montage rythmique*. The display incorporates scalable waveform representations of the entire piece and selected sections, together with a dynamic frequency spectrograph. The user is able to select portions of the music - *plunderpoints* - that may be ‘bookmarked’, via keystrokes, for later recall. Each plunderpoint may be associated with an on-screen pop-up graphic for ease of navigation, which in turn may be used to reveal user-inputted textual annotations. Once marked, each plunderpoint can, in turn, be associated with multiple examples of other music (plunderphones), text and images. Associations may, of course, be spectromorphographic or freely indexical (the given example illustrates the plunderpoint associated with notions of ‘dooriness’, and its connotations of a separator and a place of transition. Associated

plunderphones include Trevor Wishart's *Red Bird*, Bernard Parmegiani's *Retour de la Forêt* and Pierre Henry's *Variations pour une Porte et un Soupir*). In this respect, the user is able to construct an analysis of the piece, drawing on their wider contextual understanding and experience, and allowing previously unrecognised associations to sit alongside more formalised applications of analysis.

The screenshot shows the Plunder Player interface for the piece 'The Door'. The interface includes a control panel on the left with buttons for 'jump to...', 'start from zero [0]', 'loop on/off [L]', 'pause sound [P]', and 'sonogram on/off [S]'. The main display area is divided into three horizontal sections: a waveform at the top, a spectrogram in the middle, and a zoomed-in waveform at the bottom. The title 'The Door' is centered at the top. On the right side, there are three panels: a text box at the top explaining the door's function as a separator and transition; a middle panel with a dropdown menu 'PlunderPoint 1' and a photograph of a door handle; and a bottom text box discussing the use of the door sound in Trevor Wishart's *Red Bird* to suggest imprisonment and freedom.

The main PlunderPlayer screen

### Conclusions and Applications

Whilst the association of other works, images and fragments of understanding with this extract is unashamedly subjective, the listener's proclivity to search for experiential and extra-musical referents is well documented. James Gibson's notions of *affordance* - 'the dynamic relationship between a perceiving, acting organism and its environment [which] is seen to provide the grounds for the direct perception of meaning' (Windsor, 1995), are conditioned by the listener's 'horizons of experience' (Nattiez). Arguably, such horizons develop and adapt through processes of reception that are informed by synchronous and asynchronous acts of juxtaposition, comparison and recursive commentary of perceptual phenomena, acts that even the most ardent musicologist and semiologists cannot escape from - their lived experiences. This project is clearly in its infancy, but it is our intention to develop the system into a framework for plunderphonic analysis: as a tool for students and musicologists to construct their own understandings of chosen musical works; as a self-reflective environment in which composers might explore and make explicit known and unknown influences on their own work; and as an instrument that allows the user to 'play' the trace, participating in acts of analysis art. Whilst the intention here is most definitely not to undervalue objective and formalised methods of analysis, a style of enquiry that reflects both the increasingly ubiquitous manner in which information is available, and the inherent 'connectivity' of electronic and web-based media, may not only shed new light on old listening experiences, but may also help new listeners find ways of engaging with unfamiliar experiences through familiar associations.

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