

Electroacoustic music: from sounds of the world to a poetics of unity

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Abstract

Are recorded sounds of the world and music two separate categories? The answer to this question deserves reflection. Certainly, Walter Ruttmann explored noises in 1930 in *Wochenende*, and Pierre Schaeffer proposed a systematic study from 1948, as part of *musique concrète*. Recording has opened music to the sounds that surround human beings. However, the link between sounds of the world and music can't be summarized as an extension of the field of sound sources in art.

In *Poetics*, Aristotle makes a distinction between praxis and poesis. In the Platonic tradition, arts are presented as an imitation. The memorization of real-life sounds is akin to praxis. Manipulation and integration of world sounds in a musical structure bring them to the rank of poesis. This distinction between noise and ambient music, however, raises a first difficulty: the determination of the threshold where the intervention by the artist uproots the sound from the phenomenon's triviality. The definition of music is not absolute, but relative to the listener's prior experiences. Establishing a clear boundary between the sounds of the world's music remains uncertain, especially when the technologies of recording and manipulating sounds are involved.

The sounds of the world are not the world itself, but a trace of the reality remaining to be interpreted. The correspondence between sign and meaning isn't univocal.

Contrary to language, for the sounds of the world, the link uniting signifier and signified is not arbitrary. The sign, that is to say the produced sound, is completely determined by the object that is its source. On the contrary, the signified, the conceptual aspect of the sign, is fixed, neither by man nor by nature. The meaning of a sound of the world depends on the listener, especially if the record has been incorporated into a musical piece. The music, like listening to the world, is above all an intimate experience. Recorded sounds are not just figuralisms. They further blur the line that separates the sounds of the world and the art of sound.

Faced with this complexity, Francois-Bernard Mache proposes to refer to latent thoughts revealed by consciousness. He claims an atheistic mysticism, an irrational content in nature, to which art provides an access key. Applied to recordings, as in *L'Estuaire du temps*, this atheistic mysticism is a means of transcending the sounds of the world into an aesthetics rooted in the depths of humanity. The sampler transforms the sounds of nature's triviality to a universal distance. The metamorphosis of musical sounds of the sea, wind and rare languages

switches them from the physical to the metaphysical world. The duality between nature and culture is the scene of an intense dialogue. It is sometimes replaced by a unity made by a higher order.

The Pierre Henry's simple faith is expressed through the cries of souls in the *Apocalypse de Jean*: they are in fact some real barking. Nothing like that in the Messiaen's Catholic mysticism. Beyond religion, the idea of a universalist transcendence go through Jonathan Harvey's music. The lack of involvement inspired from the Rig Veda, the phenomenological distanciation formulated by Hegel contributes to the detachment of the physical aspects of the sounds of the world. The musical aesthetics becomes intermingled throughout auditory scene, whether the daily one or another produced by music. Recording and manipulation technologies, far from transferring a particular aesthetics from the sounds of world to the music, promotes their fusion. Writings and music by Harvey show how music incorporates the sounds of world in a superior unity, in an *advaita*.

Introduction

To begin, the following question has to be asked: are recorded sounds of the world and music two separate categories? The answer to this question deserves reflection. The main goal of my talk will be to redefine this separation. This separation is not always used in an appropriate way.

First, three well-known examples have to be given. In 1930, Walter Ruttmann explored noises in *Wochenende*¹. The piece is a movie without images. In fact, only the sound was purposely included. Recordings in Berlin provided the music with recognizable fragments of the sound life of the city. A child, an engine, a saw and many other "sounds of the world" were used. What has to be noticed is that Ruttmann wasn't a composer, he was a film director. One have to recall that, several years prior, in the nineteen ten's, Guillaume Apollinaire was excited by the possibilities of the phonograph as a musical instrument. He wasn't a composer either. In the forties, Pierre Schaeffer² was above all an engineer and a researcher³. Thus, Apollinaire didn't carry out his ideas, Ruttmann experimented with sounds. On the contrary, one of Schaeffer's main goals was systematic typology of sounds.

Composers came later. It is likely that the earlier beginnings of what would later be called "tape music" may be, weren't interesting for the musicians, or even known by them. Perhaps recorded sounds were too close to real life, or technologies didn't catch their interest.

Later, recording has opened music to the sounds that surround human beings. From a music of notes, an art based on symbolic notation, some musicians shifted into a music of sounds, a composition made directly from recordings.

Some have linked the manipulation of sounds of the world with their commitment or their socio-political ideas. Thus, William S. Burroughs⁴ has demonstrated the revolutionary power

¹ Ruttmann was a German film director (1887-1941). *Wochenende* (Weekend) is an experimental film without image, the sound was recorded on the soundtrack of an optical sound film using the Tri-Ergon process.

² Pierre Schaeffer, *De la musique concrète à la musique même*, first edition: *La Revue Musicale*, numéro spécial, 1977.

³ Thus, early on, he hired Henry in the need of a professional musician.

⁴ American novelist, poet, essayist and spoken word performer.

of the recording in his text *Electronic Revolution*⁵, John Cage was inspired by Thoreau⁶'s theories in a libertarian vision of music, Luigi Nono wanted to give his music a militant dimension, as in *Fabbrica Illuminata*⁷. For others, music is simply utilitarian. The notion of art is sometimes underplayed, overlooked or absent (art songs, African rituals). Finally, the relationship between music, art and the sounds of the world can be much more difficult to define.

It is therefore appropriate to examine the links between music and the sounds of the world by browsing through questions of poetics, meaning and culture, in order to overcome the dialectic between art and everyday life.

However, it's not so simple. The recordings aren't always from daily life (for example: instrumental sounds in samplers). And sounds of the world had often been useful in music of notes, for example by Richard Wagner, Maurice Ravel or Erik Satie, or even the street songs in the *Chansons de Paris*⁸ by Janequin⁹. All these examples touch on this question.

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To this end, the first part of this paper will question the separation between sounds in real life and sounds in art. The notions of praxis and poesis are involved. With recordings, the border line is blurred. It depends on the musician's and listener's way of thinking about the sounds. It depends on the meaning. The second part of this reflexion will address this question of sign and meaning. Finally, this paper will try to explain how these related notions, these dyads, these conceptual couplings (i.e. symbolic notation vs. sound, daily life vs. music, nature vs. culture) have to be reunited into something more general. On this purpose, the difficulty is to find some concepts of higher order. The conclusion will emphasize this intertwining between sounds of the world and the art of music. This relation is not a dialectic, or an opposition or even a dialog, but rather a sort of re-unification.

1. Praxis and poesis

In *Poetics*, Aristotle makes a distinction between praxis and poesis. Even though music isn't the first center of interest in his *Poetics*¹⁰, Aristotle's ideas are interesting for our reflexion. A

⁵ William S. Burroughs, *Electronic Revolution*, Expanded Media Editions, Bresche Publikationen, Göttingen, Allemagne, 1971, this first edition contains a translation in German by Carl Wiesser titled *Die Elektronische Revolution*, followed by the text in English, <http://archive.groovy.net/dl/elerev.html> [Accessed 11/11]; the second edition contains a translation in French by Jean Chopin titled *La révolution électronique*, Blackmoor Head Press, Cambridge, England, 1971, <http://cftp.lautre.net/stup/psychona/wsbelectro.htm> [Accessed 11/11]; other edition, collection OU, 1971, éd. Champ Libre, 1974.

⁶ Henry David Thoreau (1817-1862), an American essayist and poet. He is best known for *Walden, or Life in the Woods* (1854). His ideas on civil disobedience (1849) influenced Mahatma Gandhi's concept of passive resistance. *Resistance to Civil Government*, 1849, also known as *On the duty of civil disobedience*, text in english available on line <http://thoreau.eserver.org/civil.html> [Accessed 11/11].

⁷ Piece for soprano and tape, composed in 1964.

⁸ The genre of programmatic chansons of the Renaissance.

⁹ French composer (1485-1558).

¹⁰ *Poetics* was written by Aristotle circa 335 BCE. A translation from Greek to English is available here: <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0056%3Asection%3D1447a> [Accessed 11/11].

praxis is an action, an activity which is involved in the social environment, which is able to transform this environment. Poesis is related to imagination and creation. It is more intimate than action. For Aristotle, it is also ranked at a superior level. The production is not only mankind's handicraft, but also the fruit of inspiration, of creative thought or vision. For Horace, poetry is imaginative text. In the same way, we could say that music is imaginative sound texture. More generally, in the whole Platonic tradition, arts are presented essentially as an imitation. In other words, art is not merely nature. On the contrary, a distance is obligatory between real facts and artistic interpretation of this reality. Thus, if praxis is inherent to reality, poesis is attached to nature by different kinds of links. Imitation is one of these relations. However, the study of these connections along the twentieth century would be useful.

Before modernism, reality was a model, not the very core of art. The idea of style partly consisted of this distance between the model and the artistic object which is its consequence. Renaissance, baroque, classic or romantic styles are different, but each one is what fills the gap between reality and art. This is true for painting, sculpture, architecture, music, literature and so on. The final product was generally coherent with the background culture of the time.

During the modern era, a rupture, a breaking point, happened: Marcel Duchamp¹¹ radically changed the concept of art. Before Duchamp, an artistic object was worth the quality and the amount of work done by the artist. Duchamp, on the contrary, claimed the right to do nothing, or at least, a minimum. This is the concept of ready-made. The distance from reality is not in the artistic object itself, but in its situation and in the artist's intention. So, the discrepancy between triviality and art is radically shifted.

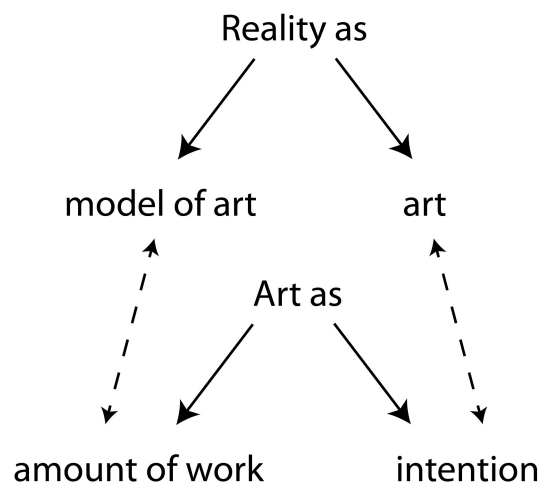


Figure 1: Reality and art

Furthermore, Duchamp's action is comparable to a drag and drop action (with nothing else involved). The mere gesture of putting the ready-made out of its field implies poesis and poetry. One could say that this gesture of prehension is praxis. But it is also, through personal and sometimes emotional choices, a sort of poetry. Consequently, in this process, praxis becomes poesis.

¹¹ Marcel Duchamp was born in France in 1887, and died in 1968. He lived in the US.

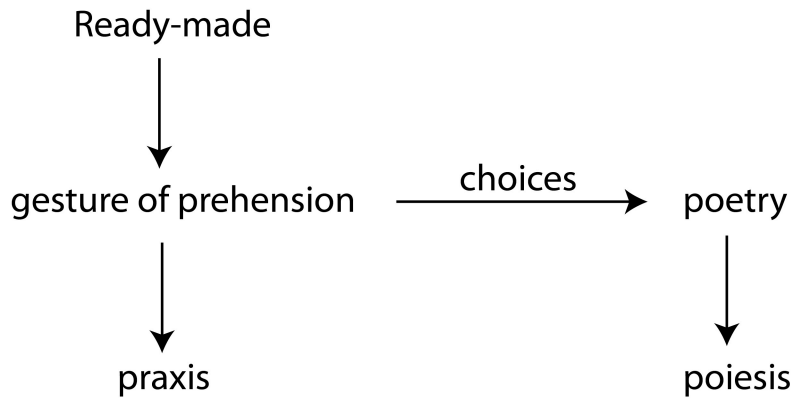


Figure 2: Ready-made, praxis and poiesis

2. The sign and the meaning

The definition of music is not absolute. In fact, it is relative to the composer's and listener's wishes, his culture or prior experience. Establishing a clear boundary between the sounds of the world on one hand, and music on the other hand, remains uncertain. I will take an example. For some people, Cage's music is nothing but noise, or in the case of *4'33''*¹², it's nothing at all. For others, his *Imaginary Landscapes*¹³ have been opening the field of music. Not only new adventurous experiences, but a new domain of sensibility, imagination and poetry. All experimental music, as defined by Michael Nyman¹⁴, explores the articulation of world vs. art, and trivial sounds vs. music.

Another element occurred in the 20th century: manipulations of sounds, and even their synthesis from nothing, have been becoming available. With such possibilities, it's not so easy to distinguish noise, sound and music. How to deal with this issue? For example, the use of the so-called 'white noise' is usual in electroacoustic music. The solution fits in definitions. In fact, the definition of the concept of noise is to be considered in two different fields. In the field of acoustics on one hand, and in the domain of music on the other hand. The same problem occurs with formants and voice. Formantic structure is an acoustic reality. While the voice is a consequence of physiological event.

¹² This well-known piece was conceived around 1947-1948 and composed in 1952. A second version composed in 1962 is entitled *0'00''*. This time, electricity is needed, as explained in the "score-notice", n. p.: "In a situation provided with maximum amplification, perform a disciplined action".

¹³ The five *Imaginary Landscapes* were composed from 1939 to 1952. All these pieces require electricity in a way or another.

¹⁴ Michael Nyman, *Experimental Music, Cage and beyond*, 1st edition, London, Studio Vista, New York, Schirmer Books, 1974, 2nd edition, Cambridge & New York, Cambridge University Press, 1999.

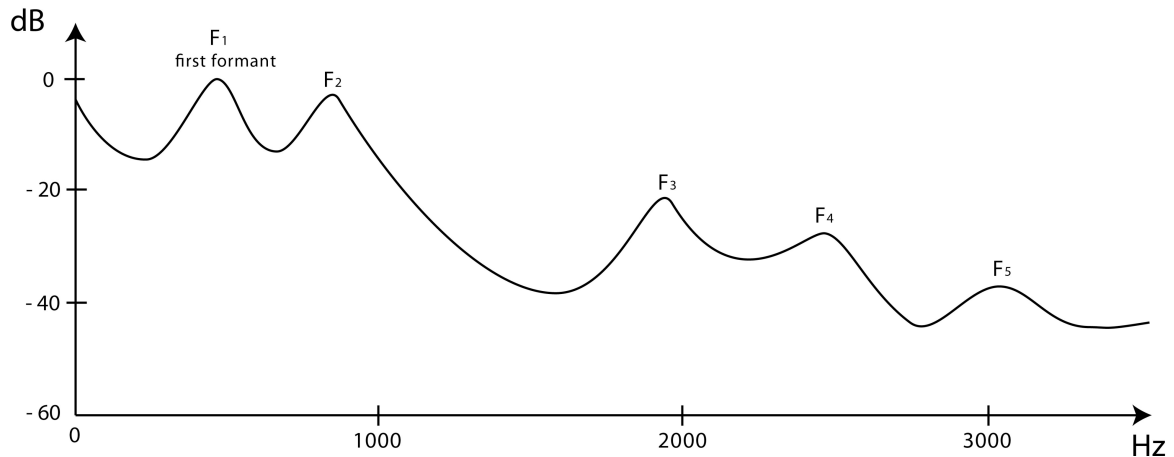


Figure 3: Formantic structure

Since the technologies of recording and manipulating sounds have been involved, the question of the sounds of the world has not been the same. Now, the problem is not simply to identify existing differences between sound and music. Rather, the interrogation becomes: what are the relationships between sign and meaning? That is to say between sound trace and signification.

First, the sounds of the world are not exactly the world itself, but an acoustic trace of the reality. And this acoustic sign is to be interpreted by living beings, animals or humans. This is a new step in this reflexion.

In the sounds of the world (except in language), the link uniting signifier and signified is not arbitrary. In nature, the signifier, or the produced sound, is well determined by the object that is its source. On the contrary, the signified, that is to say the meaning, the conceptual aspect of the sign, is less exactly determined. The meaning of a sound depends also on the listener, especially if it's a recording. And even more if this recording has been incorporated into a musical piece. Even more than listening to the world, listening to music is, above all, an intimate experience. Recorded sounds don't work as mere figuralisms. They are not just a trace of reality. They don't show this reality as a movie shows it. The phenomenon is more complicated and subtle. Recorded sounds blur the line which separates the sounds of the world, and the art of sounds.

3. Nature and Culture

This complexity isn't easy to apprehend or to deal with. Francois-Bernard Mâche proposes to clearly distinguish nature and culture¹⁵.

Culture refers to latent thoughts revealed by consciousness. This idea exists without any link to a religion. Mâche claims an atheistic mysticism. For him, nature is sometimes irrational, but never religious. One of the goals of art is to provide an access to this erratic dimension. So, beyond sign and meaning, a third level occurs: randomness, or irrationality. For Francois-Bernard Mâche, this apparently illogical factor in the sound of the world favours imagination.

¹⁵ François-Bernard Mâche, *Musique, mythe, nature ou les dauphins d'Arion*, Paris, Klincksieck, 1983; Paris, Méridiens Klincksieck, 1991.

Applied to recordings, such as in the sampler of *L'Estuaire du temps*¹⁶, this idea commutes the relative uncertainty into art.

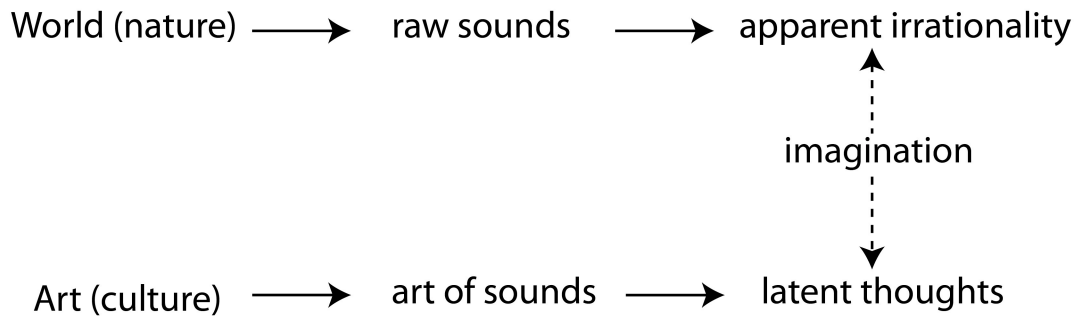


Figure 4: Nature and culture

The listener is confused between recorded sounds and their imitation by the orchestra. This is a concerto for a sampler and an orchestra, but also a concerto for nature and culture. In the genre of the concerto, the dialogue can be either a struggle or a fusion. Here, the sounds of the world communicate directly with music. The reality becomes instrumental timbres and the orchestra generates noises of the nature. Thus, the meaning of the sounds is ambiguous.

This ambiguity is a means of transcending categories. The sounds of the world are rooted in the depths of humanity, just as music is. The aesthetics of ambiguity isn't a style. It is an attempt to go beyond classifications. In *L'Estuaire du temps*, the sampler transforms trivial sounds into music. It transforms triviality to universality. The beauty of the sounds of the sea, of the wind and of rare languages is trivial and poetic at the same time. Thanks to new technologies, reciprocal metamorphosis between life and art is even more common than it was in prior centuries. Jean-Claude Risset and many other composers used new electronic tools to explore this in-between. Duality between nature and culture is replaced by a higher order of unity. This idea emerged well before the 20th century. It recalls certain Shamanistic, spiritualist or Buddhist ideas.

Conclusion: *from dialectics toward unity*

Beyond transcendence, the idea of a universalist poetry goes through music and thought. The physical sources and the meanings of the sounds of the world seem blurred in the art of sounds. Raw auditory scenes in real life on one hand, and music on other hand are not utterly distinct. As shown by the French composer François Bayle in a conference at the Sorbonne university last month, a recording of a natural scene in Africa is not like music, IT IS music. How is it possible? It suffices to consider the sounds of the world as music. For composers in the fields of electroacoustic music, landscape composition and so on, these sounds become art for the composer and the listener.

In this talk we aimed to overcome the sound dialectic between art and everyday life in order to reach a kind of unity. I have examined this idea by browsing through questions of meaning, culture and poetics. Recording and other manipulations with technologies, far from just

¹⁶ *L'Estuaire du temps* was composed in 1993. First performance: September 17, 1993, France, Strasbourg, festival Musica, by Orchestre philharmonique de Radio France. Available recording: MFA-Radio France CD 216034.

dealing with two categories, that is to say: sounds of real life and music, promotes their fusion. Of course, this phenomenon of fusion or unity takes root very deeply in the history of humanity. The beginnings of the concept of art is a difficult subject. However, with electronic technologies, it's more and more easy to play with all sorts of correspondences and ambiguities. Real life and art, sounds of the world and music, have been more and more intertwined throughout the centuries. Music incorporates more and more the sounds of the world in a superior unity. Artists, scientists and people from a great number of fields are interested in this idea of unity. One can use different concepts to explain or to apply unity. In physics, it is the theory of unification of forces, in religion. It's Jesus as a god and a man in the same time. In digital arts, this is hybridization of the parameters. And so on. Inspired by the Rig Veda and Buddhism, the english composer Jonathan Harvey chooses *advaita* to illustrate the concept of superior unity. In sanskrit, *dvaita* is similar to duality. On the contrary, *advaita* is a monistic system of thought: the unity in the whole.

References

ARISTOTLE, *Poetics*, circa 335 BCE. A translation from Greek to English is available here: <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0056%3Asection%3D1447a> [Accessed 11/11].

BOSSIS Bruno, "De l'infra-langage au méta-langage", in *L'Universel & l'utopique, hommage à François-Bernard Mâche*, in proceedings of *Conférence François-Bernard Mâche*, Paris IV-Sorbonne, 15 novembre 2005, Paris, OMF/Paris IV-Sorbonne, 2006, pp. 111-122.

BOSSIS Bruno, "Musicology and Communication Theories: Real Time and Interaction in Music understood as Circulation of Information", in *Elektroakustische Musik-Technologie, Ästhetik und Theorie als Herausforderung an die Musikwissenschaft / Electroacoustic Music-Technologies, Aesthetics, and Theories – a Musicological Challenge*, Leipzig Universität, Essen, Die blaue Eule, 2008, pp. 182-193.

BOSSIS Bruno, "Parcours de l'œuvre de Jonathan Harvey", in *Brahms, Base de documentation sur la musique contemporaine* Paris, Ircam-Centre Pompidou, 2007, <http://brahms.ircam.fr/jonathan-harvey#parcours> [Accessed 11/11].

BOSSIS Bruno, "The Analysis of Electroacoustic Music: from sources to invariants", *Organised Sound*, 11(2), August 2006, pp. 107-118.

BURROUGHS William S., *Electronic Revolution*, Expanded Media Editions, Bresche Publikationen, Göttingen, Allemagne, 1971, this first edition contains a translation in German by Carl Wiesser titled *Die Elektronische Revolution*, followed by the text in English, <http://archive.groovy.net/dl/elerev.html> [Accessed 11/11]; the second edition contains a translation in French by Jean Chopin titled *La révolution électronique*, Cambridge, England, Blackmoor Head Press, 1971, <http://cftp.lautre.net/stup/psychona/wsbelectro.htm> [Accessed 11/11]; other editions: revue OU, 1971; Paris, éd. Champ Libre, 1974.

CAGE John, *Silence: lectures and writings*, Hanover, Wesleyan University Press, 1961, 1973.

HARVEY Jonathan, "The Mirror of Ambiguity", in *The Language of Electroacoustic Music*, edited by Simon Emmerson, London, Macmillan Press, 1986, pp. 175-190.

MACHE François-Bernard, *Musique, mythe, nature ou les dauphins d'Arion*, Paris, Klincksieck, 1983; Paris, Méridiens Klincksieck, 1991.

NYMAN Michael, *Experimental Music, Cage and beyond*, 1st edition, London, Studio Vista, New York, Schirmer Books, 1974, 2nd edition, Cambridge & New York, Cambridge University Press, 1999.

SCHAEFFER Pierre, *De la musique concrète à la musique même*, first edition: *La Revue Musicale*, numéro spécial, 1977.

SCHAFER Robert Murray, *The Tuning of the World*, New York, A. Knopf, 1977.

THOREAU Henry David, *Resistance to Civil Government*, 1849. Also known as *On the duty of civil disobedience*, text in english available on line <http://thoreau.eserver.org/civil.html> [Accessed 11/11].