The Paradoxical Role of Noise in Music

Lílian Campesato
Music Department – University of São Paulo
Rua Cristiano Viana, 1089 apto 154
São Paulo - Brazil
+55 11 3864-1539
lilicampesato@usp.br

ABSTRACT
This article focuses on the passage from noise – as disruptive and strange element – to sound when it is incorporated into music. This process is directed to an understanding of how noise has become a destabilizing element during the twentieth century, establishing a dialectic tension between rejection and acceptance as a musical element. From this point we raise two issues: the empirical aspect of noise in relation to the abstraction of what is communicated; and process of »silencing« noise as it is incorporated into music. This process is analyzed from two seemingly opposing concepts: noise repression, in which noise is taken as something to be avoided; and noise sublimation, or the worship of noise. Eventually, we will analyze examples of relatively recent repertoire of works in which this matter plays an important role: John Oswald's *Pluderphonics*, Christian Marclay's conceptualism, and the sound radicalism of the *noise* movement.

Keywords
Noise, aesthetization of noise, musicalization of noise.

1 INTRODUCTION

This article focuses on the passage from noise – as disruptive and strange element – to sound when it is incorporated into music. This process is directed to an understanding of how noise has become a destabilizing element during the twentieth century, establishing a dialectic tension between rejection and acceptance as a musical element. From this point we raise two issues: the empirical aspect of noise in relation to the abstraction of what is communicated; and process of »silencing« noise as it is incorporated into music. This process is analyzed from two seemingly opposing concepts: noise repression, in which noise is taken as something to be avoided; and noise sublimation, or the worship of noise. Eventually, we

will analyze examples of relatively recent repertoire of works in which this matter plays an important role: John Oswald's *Pluderphonics*, Christian Marclay's conceptualism, and the sound radicalism of the *noise* movement.

2 NOISE AND INFORMATION

In the same year that *musique concrète* made its premiere, engineer and mathematician Claude E. Shannon published a paper on a mathematical theory of communication in which he sought to find the best way to encode the information a sender wishes to convey to a receiver.[19] Within this framework Shannon applied a technical meaning to the terms »information« and »noise«. Information was defined as a measure of decrease in uncertainty while noise was any random interference in the information and not just the ›hiss‹ or ›distortion‹ that often occurred on a phone line.

Information theory pointed to an understanding of noise that goes beyond its phonic or sonic content and sought to understand how a given signal could mask »regular patterns that carry information« and disrupt the communication process. From there, the idea of noise was associated with the existence of »unwanted background signals«. This concept, when directly applied to a sound event is understood as »unwanted sounds«.[13]

To be »unwanted« is an assignment that relies on a process of subjective judging. Thus, noise is what someone considers as such. This judgment, whose criteria are not fixed, establishes a dynamic assimilation of what is odd or unknown, of what is external to a system. But when this oddness is incorporated, it can be recognized and can gradually become familiar, losing its power to cause strangeness and therefore ceasing to be noise. Namely, when a noise is identified, recognized and particularly when it is incorporated, it loses its *raison d'être* noise: when it is identified as such it no longer belongs to that category. This concept of noise is indicated by several authors. In music, this idea seems to gain strength from the end of the twentieth century and resonates in the writings of authors such as Jacques Attali,[1] Douglas Kahn [11] and Paul Hegarty.[9]

Central to this paper as a whole, is the idea that noise represents a disturbing and transgressive element. On the one hand it should be avoided, on the other it acts as an agent of change and a modifier element in the musical system. Therefore, noise – understood here not only as audible noise, but also in an aesthetic sense – has always been part of the background over which music develops. Accordingly, we identify a recurring process in which noise is initially presented as a surprising element. But as it is incorporated in a particular practice, it dissolves itself into this practice, losing some of its noisy characteristic.

3 EMPIRICAL AND ABSTRACT

In a regular process of communication, noise must generally be neglected. For Kahn, noise can be understood »in one sense to be that constant grating sound generated by the movement between the abstract and empirical«.[11] In this context, noise is connected to empirical processes while communication (meaning) is related to a process of abstraction. To the author a relevant question arises when noise is being communicated. In this case, it disconnects from the empirical experience and adheres to an idea (or to an abstraction) of other noise.[11]

This notion may become clearer if we consider an example related to verbal discourse. Speech hesitation during a conversation can be understood as noise because it hinders what someone intends to communicate. However, this noise carries a particular type of information that is lost in the process of abstraction of communication in which it is necessary to interpret the content of speech to understand the message. Occasionally, the context and causes of this hesitation as well as pauses in breathing, stammering and voice intonation, acquire a significant aspect, to the extent that it may indicate symptoms of the person's mood or intentions. These signals may not be directly related to speech content, but might completely change the understanding of what is said.

The intentional incorporation of noise in music can only happen through a process of abstraction of that noise which becomes a musical sign of another noise. Kahn suggests that if noise is an abstraction of an originally inconvenient sound. »then noise is itself a form of noise reduction; it is something done to sound that most often goes unheard«.[11] For example, during a famous performance of John Cage's *4'33"*, a truck passes near the room where the piece is being presented. In Cage's intention, this sound becomes part of the piece framework as this noise becomes ›musical‹. But ›to become musical‹ implies a process of abstraction in which it ceases to be noise. It stops disturbing the music to become part of the music. This ›musical‹ noise becomes a sound that refers to a noise. Thus, listening to sounds of a truck engine as music is part of a noise reduction's process. It is a transformative process in which noise becomes music.

In this sense noise is precisely the element that refers to a particular context, to a gesture, or to a contingency. As the result of a specific situation, noise resists generalizations. Its significance lies on what is particular to its existence. An explosive and unexpected noise that interrupts an action can be full of meaning. It indicates the occurrence of an event, at a certain time, at a certain distance, with a certain intensity. The degree of understanding this noise depends on one's concern regarding it, but also depends on one's history and experience with similar situations. In this direction, Kahn stresses the link between noise and the empirical, as something that is experienced in a particular way.[11]

Although generally associated with something one should avoid, noise may have a dual function (face): one good and another annoying, as pointed out by physician Claude-Henri Chouard. In his book *L'oreille Musicienne: les chemins de la*

musique de l'oreille au cerveau, Chouard reports the example of people who regret the fact that high-fidelity studio recordings seek to eliminate all noise that exists in a live performance[5]. This noise would ensure a sense of vitality that is removed during the recording process in a music studio. People habituated to urban noise sometimes may have trouble sleeping in extremely silent environments. In some way, they get used to urban sounds that refer to the existence of events and to the movement of people and things. These sounds bring evidence of everything that accompanies our existence. Because they follow the course of the day, they are quiet at night and become more and more dense as the morning approaches. Its absence leads to a static quality that is sometimes disturbing.

Chouard draws attention to this desirable face of noise, because it refers to the living things and to our experience,[5] which Douglas Kahn relates to empiricism. Sometimes specific events indicated by noises are what provide us the sense of a situation and the comprehension of a context. Take into consideration the differences between a sound full of transients, small modulations and sharp noises that are emitted by a musical instrument and whose imitation is produced by an electronic synthesizer. The sterility of the latter contrasts with the richness of the former precisely because of what the player attempts to eliminate (or at least control): noise.

According to Chouard, our attention tends to drive itself to the significant messages we hear in order to separate them from background noise. [5] For example, noise is an unavoidable component of electronic devices since it is part of the thermal nature of circuits. In order to eliminate them it would be necessary to remove heat, lowering temperature to a level where there can be no life. Background noises are therefore »sign of life« as reinforces Chouard. [5] To silence them would be the equivalent of death.

However, living organisms have an ability to use noise in favor of their enrichment in a way that machines can not do. One way to conceive of this »positive« use of noise, is assigning a meaning to it. Information Theory needed, somewhat, to abstract noise's potential meaning to subject it to mathematical and statistical treatment.

4 REJECTION AND ACCEPTANCE OF NOISE IN MUSIC

In a way, the historical development of Western classical music exemplifies a kind of history of adoption and rejection of noise in a broad sense. For example, the constant tension built around a diabolical sound (which can be condensed into the figure of the tritone) that should be explicitly avoided during the middle ages was repressed by the Institutions (mainly the Church) responsible for regulating ethics and morality in that period. The repression of music mediaeval demons, the confiscation of Greco-Roman statues by the Vatican and their symbolic castration by removing their sexual organs, the division between carnal pleasure represented by

medieval festivals and the untouchable divine, they are just a few examples of cleanup processes started long ago and whose ties go beyond the aesthetic field.

The rigor of written music, the equal temperament, the requirement of an attentive and respectful listening, the rejection of error, are all part of a great differentiation effort and, consequently, of repression of what should be avoided: noise. This repression was reinforced by the idealized concept of artwork and by the establishment of ›sacred‹ places devoted to music appreciation (as is the case of the bourgeois concert hall and the Church).

However this is not a hegemonic history, which intends to reduce events to a main line. If we approach the interior of the facts, we see that each instance creates its own dynamics, each belonging to different contexts. In the history of music we always come across processes of incorporating noisy elements: the medieval polyphony, the appearance of *musica ficta*, dissonance, cluster, noise. All of them are gradually incorporated into the context of a particular repertoire, becoming part of that system and therefore no longer causing strangeness. The dialectic of signal *versus* noise is present in the musical avant-garde as well as in latter manifestations (Japanese noise, sound art). However the roles assumed by what are considered sign and what are considered noise are completely modified according to each context.

In his book *Noise, Water, Meat: A History of sounds in the arts*, Douglas Kahn brings together a series of reflections on noise outlines and traces a history of sound in the arts, from modernism to avant-garde. Kahn builds his interpretation on the basis of a communicational split: sound, meaning, significant noise.

For Kahn, noise is too important and significant to be just »noise«. It can bring a lot of information and details that help in the understanding of how and why sounds are turned into the musical [musicalized]. Kahn provides an almost psychoanalytic incursion in the relationships established between noise and musical sounds. In this case two aspects are relevant. First, the idea that noise is not a thing in itself, but the result of a relationship. In other words: what may be considered noise in one context, may not be in another. Second, he brings the conception of silencing noise, by referring the process of turning noise into something musical when it is incorporated in music. As a consequence, by becoming musical sound would gradually lose its noisy character.

Wherever they might occur among the arts, noises – interchangeably soundful and figurative, loud, disruptive, confusing, inconsistent, turbulent, chaotic, unwanted, nauseous, injurious – and noises silenced, suppressed, sought after, and celebrated always pertain to a complex of sources, motives, strategies, gestures, grammars, contexts, and so on. As such, they become significant. I concentrate [...] on noises manifested in some way sonically among the arts, attempting to hear the intricacies of the sounds among noises and to determine the significance of the sounds that amount noise. I am interested also in significant noise abatement occurring at specific sites known for their noise; in other words, silencing can occur in the midst of a din.[11]

For Kahn noises that are incorporated into music are noises that are significant. What interests us here is to understand this process in which noises gain significance as they are incorporated into music.

4.1 Between manifest and justification: an ideological question

Throughout twentieth century noise plays an important role in music, in part due to the expansion of techniques and sound materials incorporated into music, but also for its transgressive potential, something that turned out to be a valuable argument within the avant-garde. In this context noise oscillates between different conceptions, most of which denoting a negative aspect. As pointed out by Pierre Albert Castanet:

> While it most often offers fruits of a singularly deep socio-cultural temperament, the aesthetic path of noise wavers, like it or not, between the deviation, lying, substitution, shadow, derivation, doubt, emancipation, discomfort, prohibition, flight, abjection […] and death.[4]

Being incorporated as an aesthetical element this negativity is transformed into energy in the questioning of tradition. Futurism has developed one of the most emblematic discourses in favor of noise in the arts:

> Ancient life was all silence. In the 19th Century, with the invention of machines, Noise was born. Today, Noise is triumphant and reigns sovereign over the sensibility of men.[17]

Elsewhere Russolo points out that the evolution of music parallels the evolution of machines.

> Now we have had enough of this (music), and *we delight much more in combining in our thoughts the noises of trams, of automobile engines, of carriages and brawling crowds, than in hearing again the »Eroica« or the »Pastorale«*.[17]

While the Futurists exalted the urban noise of machines and as a desired symbol of progress in the 1970s, acoustic ecology assumes an attitude of refusal towards the same noise. Murray Schafer constructs a theory based on an ecological framework whose ideology is guided by the idea of ›tuning the world‹. Instead of welcoming urban noise, Schafer seeks for a nostalgic and idealistic environment of a quiet countryside soundscape.

> In the past were muted sanctuaries where anyone suffering from sound fatigue could go into retirement for recomposing of the psyche. It might be in the woods, or out at sea, or on a snowy mountainside in winter. One would look up at the stars or the soundless soaring of birdcraft and be at peace […] at one time stillness was a precious article in an unwritten code of human rights.

> Man had reservoirs of stillness in his life to restore the spiritual metabolism. Even in the hearts of cities there were dark, still churches and libraries or the privacy of the drawing room and bedroom. Outside the throb of cities the countryside was accessible with its lulling whirr of natural sounds. There will still times too […] We can comprehend this clearly only now that we have lost them.[18]

Therefore, the scope of what noise is depends on contextual and ideological relations. This becomes clear when both futurists and ecologists associate noise to progress, but advocating almost opposite ethical and aesthetic judgments.

In fact, Italian Futurist movement flourished at a time when the European vanguards questioned the role of art in society and that reflected on the changes occurring in cities and on the recent technological inventions. Their incursions into music based on everyday living with the machines and their mechanical noises.

Despite the absence of significant works in the scope of Futurist music, what was clear was Russolo's intent of introducing what he called »sound-noise« in the historical context of music. Despite its artistic failure, his aspirations were musical and there was a constant attempt to impose a musical approach to noise. For transforming noise into music material they sought to organize, harmonize and impose rhythms to it. In a sense, this attempt to build a syntax by means of categorizing sounds would later resonate through Pierre Scaheffer's ›solfege of sound objects‹.

The Futurist's idea of musicalizing noise by assigning musical parameters to it establishes itself as a process that is intensified throughout modernism and finds a large development with the emergence of electroacoustic music practice.

4.2 Musicalization of sound: the metaphorical noise

During the twentieth century there is a tendency to put the idea of sound side by side with the idea of tone. While the former takes the sound as an acoustic phenomenon whose characteristics are sensory perceived, the latter is based on an abstract representation of this phenomenon, the note. But to be based on sound, music must empty it of its external meaning and references, making it to approach the idea of tone. One of the main considerations in this regard is provided by Douglas Kahn in several of his texts [11], [10] and [12]. Kahn used the term »musicalization of sounds« to »identify and supersede techniques in which sounds and noises were made significant by making them musical«.[11] This idea holds that sound as artistic element was polarized by music and followed a discursive line, which has been developed according to a specific grammar. Even in the case of experimental art, this grammar retained a teleological trajectory by considering sound displaced from both external references and contextual relations. Therefore Kahn points to the idea of sound as something particularized, the »sound in itself«.[11] This context allowed, for example, Schaeffer's proposition of a reduced listening exercise – which consisted of listening to the sound and its perceived acoustic

characteristics, disregarding its relations with its sources and other external references. This exercise may have served to draw attention to what we already knew about sounds more than to establish a technique of listening. But whatever Schaeffer's intention was, it is important to note that the exercise of reduced listening and the qualification of sound object imply a tension that is established when sound objects take the place of notes. This tension comes from the contrast between the acoustic phenomenon (sound) and its symbolic and abstract representation, which lends itself to any kind of structural relationship and hierarchical classification (note).

In fact, *concrète* and acousmatic electroacoustic music has helped to expose the dissolution of the border between two types of approach to sound. On the one hand, the sound devoid of connections that are external to its own qualities and characteristics, or to its relationship to the musical discourse. On the other, an approach that enhances the references that sounds can establish with extra-musical and non-sound elements [2] and [3].

With reduced listening, Schaeffer ›silences‹ what is ordinary to bring what is new. He proposes a listening exercise of disregarding not what is recognized in sounds, but through sounds. By proposing a deconditioning of listening in an attempt to silence the referentiality Schaeffer ends up making sound an aseptic material, eliminating the extremely rich connections it could provide.

It is worth noting that in the post-war period music maintained its bias towards formal and structural aspects rather than emphasizing referential and representational issues. An emphasis in the process and content of artistic creation will overlap the work itself. Conceptual Art brought the idea of dematerialization, adding contents that are no longer self-referential and pointing to political, social and institutional matters.[8] Concept replaces object and process replaces technique. New forms of artistic intervention such as performance and installation art are established. In both of them, context is elevated to a fundamental element of the work. John Cage and Fluxus members act in a similar direction building their work's meaning trough an experimental process and bringing art closer to everyday experience. A new situation arises in which the abstraction of ideas and concepts that give rise to artistic thinking are concretely realized by the spaces, actions, gestures, bodies and objects that refer to them. This art intensifies the relationship between two extremes that often appear disconnected: on the one hand a production directed toward an amplified sensuality in which the viewer no longer contemplates, but experiences the work (as in Helio Oiticica's *parangolés*); on the other, in a path traced by Duchamp's *readymades* where art objects are deconstructed, there is a proliferation of meanings that do not reside inside art objects, but in the world they refer to.

Figure 1. Helio Oiticica's *Parangolé* 1985.

Apparently, traditional classical music has stayed away from these two extremes, maintaining sensation and representation within the field of musical elements properly. Although sensory and representational aspects are rarely denied, they remain confined to the intrinsic elements of its internal logic. Even though some authors such as Rose Rosengard Subotnik [20] and Nicholas Cook [6] identify the origin of this discourse within the Western tonal tradition, it is not uncommon to see this perspective being extended to other music manifestations. This inclination, which holds a cultural and ideological character, mirrors a series of choices often legitimized by an academic discourse and whose proximity to musical experience itself can be questioned (especially when it comes to music outside the Western tonal tradition).

If avant-garde music, including its contemporary electroacoustic production, supports this position by producing a large number of theories, analytical methods, all of them anchored in the rationalization and formalization of musical thinking, it is also true that there is a concern with the accommodation of the spirit of experimentation and innovation within the artistic context of that moment. However, the discourse that oscillates between manifest and justification, keeps intact the idea of validating music trough compositional structure and logic. This discourse manifests itself in the techniques of serialism, in Xenakis' stochastic functions, in minimalism's modularity and even in Cage's indeterminism, though the work of this composer also promotes a reflection on cultural and ideological music context.

Even within electroacoustic music there is a desire to cross the barrier of musical abstraction and the conditioning of the work by listening to the sounds. This quest for external references creates some discomfort, but it is widely exploited in the soundscapes of Luc Ferrari as well as in Luigi Nono's highly politicized works.

Postures such as Ferrari and Ninth oppose the dominant tendency of the postwar avant-garde of emptying sound of meanings in order to conform it to their formalisms. One criticism in this regard is made by Kim-Cohen in his book *In the blink of an Ear: Toward a non-cochlear sonic art*.[14] The author reviews the history of sound art from a perspective that is close to the path established by Douglas Kahn in his book *Noise, Water, Meat: a history of sound in the arts*. However, Kim-Cohen sets his speech from the visual arts and post-structuralism.

Kim-Cohen establishes a sound parallel with a non-retinal art set up by Marcel Duchamp, in which the ocular perception can not give answers to the questions posed by the readymades. These questions address a broader focus: the very conditions and possibilities of art. This parallel points out to what Kim-Cohen called a non-cochlear sound art. It is an art in which the ear dissection of sound phenomenon would no longer be sufficient for the understanding of sound works, especially since the postwar period. In this sense, Kim-Cohen rejects an established line followed by most of music and sound art theorists, one that put a strong emphasis in a sometimes restrictive concept of *sound-in-itself.* His arguments are in favor of an expansion of sound potentialities in various directions.

The development of a critique directed towards the creation of a supposedly hegemonic line followed by most music theories and sound practices during Modernism and intensified in the postwar period, is closely related to one made by Douglas Kahn. This line relates to the idea of autonomized sound, as previously theorized by Hanslick in the nineteenth century and idealized by composers of the period in the absolute music concept. This idea resonates in the process of autonomization of social spheres (in the late eighteenth and early nineteenth centuries) as described by Max Weber.[21] In a general way, we can find traces of the same line even when (sound) noise was intentionally included in musical creation, as we saw in the Italian Futuristic attempt to tune noise, in Schaffer's acousmatism, and in Cage's project of musicalizing silence and ›letting sounds be themselves‹.[15] This hegemonic line (though one may wonder if there is indeed some linearity in this process) has played an important role in discourse regarding music, linking it more often than not with the concept of sound in itself.

For Kim-Cohen, sound »missed its conceptual turn« [14] and its theorizations have addressed the phenomenon, rather than the concept. In his book, the author suggests that the idea of ›sound-in-itself‹ represents an over-confidence in sound. He proposes to rethink the boundaries of the creative use of sound in the arts, inscribing them and re-imagining their ontology: a conceptual twist toward a non-cochlear sound art.

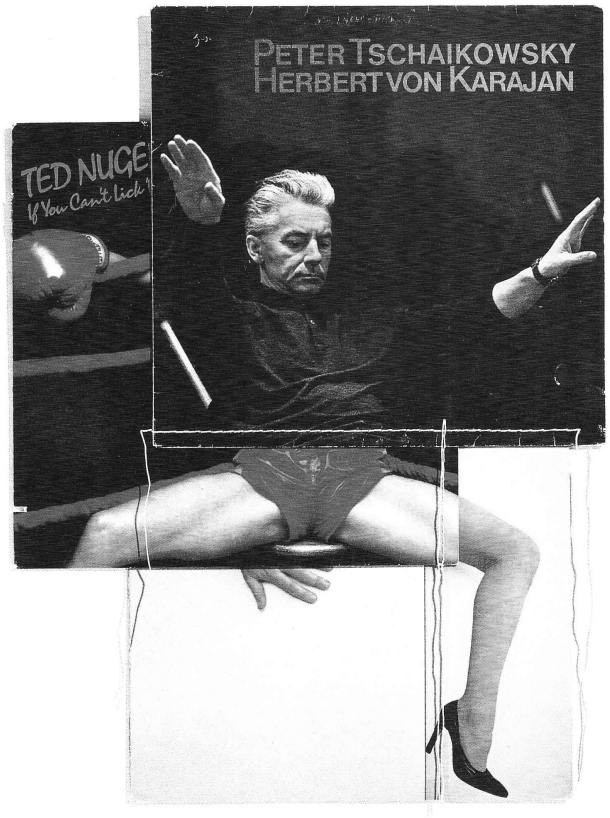

Figure 2. Christian Marclay's *Body Mix Series* 1991–92.

There is a series of movements that explore the connections drawn from sound materials that act as signs of other musics or of the idea of musicality, as the work of Christian Marclay and John Oswald. These movements lead directly to a non-art cochlear. John Oswald, inspired by William Burroughs' cut-ups and sound montage, developed several works based on the concept of Plunderphonics, a term he coined in 1985 [16] to describe works in which well known recordings of instrumental works and songs are reconfigured. The results are based on the recognition of specific sounds that lead the listener to popular songs, though the fragmentation of the samples often prevents the complete reconstitution of melodies, motives or texts. But Oswald's (re)compositions explain how we are marked by certain sounds, certain sonic configurations and design, and how we can link them unequivocally to a particular music piece. It rests on our listening skills to rebuild songs that are only partially contained within the parts we hear. Plunderphonics is not made of notes but of sounds that belong to other songs. Although they can be taken as stand-alone music works, its significance lies precisely in what is beyond each of these pieces.

Besides the plundering aspect, the sound theft, Oswald's creations are well developed hybridizations of relevant references to the musical repertoire. In his pieces the connection with musical sources is built with great skill. Oswald not only makes use of editing features, but he also explores instrumental, harmonic and timbre transpositions of the original music. Although these procedures are performed in a radical way, as can be seen in pieces such as *Dab*, *Aria*, *Discorite* or *Dwig* (SOUND 1: »dWig« by *Plunderphonics*), he keeps what is essential for the recognition of original music. On the other hand, *Plunderphonics* is nonetheless a political and ideological attitude which critically places the question of artwork ownership and the vanishing of the copyright in a society marked by diluting the idea of authorship.

Sound material proves to be extremely powerful for creating articulations that refer to music, though dealing with inaudible elements and with circumstantial data exploration of the environment where the work happens. The work of American artist Christian Marclay departs from the omnipresence of sounds surrounding us and emphasizes a listening attitude guided towards the conceptual connections brought by sounds.[7] Different listening possibilities are superimposed, either by establishing silent connections with non-sonic ideas, or by stimulating subtle conceptual elaborations. Many of his works connect aural and visual elements, expanding the frontiers of listening.

Marclay pushes the limits of listening beyond its primarily aural condition toward a superposition of possibilities (visual, tactile, etc.), whose mental, symbolic and poetic associations resonate simultaneously.

This can be observed in pieces such as *The Beatles* (1989), in which he uses magnetic tapes recorded with the entire The Beatles' repertoire to make a pillow cover; or in the *Imaginary Records* (1990) series and *Body Mix* (1992) in which he creates vinyl cover collages to construct hybrid meanings through the appropriate images; or in his ›impossible‹ instruments that cannot be played, as in *Stool* (1992) (french horn inside a wooden bench).

5 REPRESSION AND SUBLIMATION OF NOISE

This process of acceptance and rejection of newness seeks both the incorporation of real world sounds, and the reaction to an earlier consolidated tradition. We can name just a few examples to illustrate the ways in which music incorporated noise.

The use of parallel harmonies during the Renaissance is a notorious example of breaking with already stable rules. Its use in Guillaume de Machaut's Kyrie from the *Notre Dame Mass* (ca. 1365) provokes a noisy character and is considered a daring attitude that tends to empty the sound discourse. The reverse can be found centuries later in the beautifully employed parallel harmonies by Debussy in his Prelude X, Book 1 – *La Cathedrale engloutie* – 1910. This example shows how

something in a given context to be strictly avoided becomes something to be explored.

Another feature is the redundancy which creates excessive noise. In the third movement of his *Trio Cordes* (1958) Italian composer Giascinto Scelsi creates a disturbing monotony which is precisely what gives a noisy character to the work. The same occurs in Karel Goeyvaertz's out-of-phase repetitions attached to serial experiments as in *Compositio No. 4* (1952).

It is interesting to note that even in genres directly based on the use of noise as musical material there can be a search for a cleaning or sanitation of noise. In the works of Japanese artist Ryoji Ikeda, sounds (invariably noises) are carefully chosen according to a criterion of asepsis, as in the case of + - (SOUND 2: »+ -« by IKEDA) (1996). Noises are crystalline, polished without dirt or distortion. In an opposite direction, in the genre known as Japanese Noise, sound intensity reaches the threshold of pain and the aggressive use of materials create a situation of constant annoyance and extreme sensuality, as in the case of *Execution of Intelligence* (2004), by Polish composer Zbiniew Karkowski. (SOUND 3: »Execution of Intelligence« (exerpt) by Karkowski)

The incorporation of extra-musical, noisy, and radical materials and an accentuation of the sensory nature of listening were both explored in part of the electroacoustic repertoire. They resonate, too, in a series of works focused on the exploration of sound production, but not always associated to traditional electroacoustic or contemporary music. The works housed under the term *sound art* (and its variations such as audio art, acoustic art, sound installation, sonic art, etc.) are perhaps the most emblematic in this context. But this process also includes other more experimental initiatives such as glitch, *noise*, *circuit bending* and *Plunderphonics*, among others.

For example, *Japanese Noise* seeks to empty sounds from their musicality, at the same time that they become musical by their aggressive insistence. The sensorial relationship is stimulated by excess and sound overload that puts the body in the service of an almost masochistic listening. The emphasis on noise already points to an anti-musicality, exposing a conflict as well as a reference to more traditional forms of Western music.[9] Compositions by Masami Akita, aka Merzbaw and reputedly a reference for artists of Noise movement, is based on what is characterized as non-musical, invoking a listening deprived of any desire to establish structural formulations. His compositions, »abstract, minimalist and deprived of mimetic contents« [9] saturate hearing, destabilizing the perception of musical boundaries.

The dialectic of sound *versus* musicality, the opposition between musical sound and noise, and the emphasis on the listening process were part of the questions that populated the theorizations about music during the twentieth century, especially after the postwar period. We will focus here on a repertoire of works that fall within the boundaries of music, examining some recent examples. In this repertoire the question of the relationship between sound and noise arises in extreme ways,

especially when it is confronted with certain musical ideas established in the modern period. We will emphasize three initiatives that seem interesting to problematize this issue: John Oswald's *pluderphonics*, Christian Marclay's conceptualism, and the sound radicalism of the *noise* movement.

In each of these examples, the role of noise is reconfigured according to its specific context. On the one hand, noise can be repressed, because when it is incorporated into music it ceases to be noise. But on the other hand, it can be sublimated, that is, it can be raised to a higher level: this is the case of *Japanese Noise.*

During the experience of a concert of *noise*, this process of musicalization becomes turbulent, creating an environment of constant annoyance. The situation remains disturbing from beginning to end, creating listening relationship that is close to a fight for survival, bordering the limits of the body. In this context noise remains a result of a specific situation, which resists generalizations, abstractions and analysis. It is the experience of a contingency. In this case noise is sublimated, augmented, almost as if it were to be worshiped.

In a way, Christian Marclay and John Oswald are examples of a conceptual turn in relation to sound and music. Both produce a non-cochlear sonic art (in the terms proposed by Seth Kim-Cohen), while Japanese noise is directed to a purely cochlear sound art in its strictest sense: it is pure sensation.

6 CONCLUSION

What we are seeking to point out here – perhaps in an overly simplified way – is that there is a kind of dialectic of the noise, or rather, a dialectic in the opposition between signal and noise. There seems to be a process of questioning the music from which it resorts to noise as an element of destabilization and displacement of functions. Therefore, this noise becomes musical and then it becomes responsible for the emergence of a new questioning. This recurrent process can be understood as an element of propulsion of musical language, one that incorporates elements of instability to create new states of stability.

Douglas Kahn pointed to the avant-garde process of silencing noise in music. The avant-garde has taken noise from real life, the noise that really caused discomfort (war, industry, psychosis, drugs) and transformed it into metaphors and symbols of noise:

Noise in the avant-garde was linked to the sounds of military combat, the specter and incursion of technology and industrialism, the forms of popular culture and public demonstrations, nature and the sounds of other species, religious and occult activities, psychosis and drug-induced experiences, the music and languages of cultures outside reigning cultures of European society, and the sounds of the domestic sphere gendered female in contrast to the male face of the noisy parts of the avant-garde.[11]

The avant-garde explores noise within the arts, transforming its complex and subversive content in aesthetic material.

This dialectic (which has been presented as a process of incorporating an information ›that resists being incorporated‹), while indicating a paradox, is an essential operation in the process of music transformation. This interplay of forces – signal *versus* noise – constitutes a kinetic energy that adds complexity to music and turns instability into novelty, into changing. On the one hand, noise is a »negativity […] a resistance, but also defined by what society resists«.[9] On the other, it is also what indicates movement, existence, in short, life.

7 ACKNOWLEDGMENTS

I acknowledge CAPES and Fapesp (Proc. 08/08632-8) for the financial support, and professors Fernando Iazzetta and Rodolfo Caesar for their accurate contribution of ideas and discussions.

8 REFERENCES

[1] Attali, J. *Noise*. The University of Minnesota Press., Minnesota, 1985.

[2] Campesato, L. *Arte Sonora: uma metamorfose das musas*. Master, USP, São Paulo, 2007.

[3] Campesato, L. A metamorphosis of the muses: referential and contextual aspects in sound art. *Organised Sound, 14*, 1 (2009), 27–37.

[4] Castanet, P. A. *Tout est bruit pour qui a peur: pour une histoire sociale du son sale*. Michel de Maule, Paris, 2007.

[5] Chouard, C.-H. *L'oreille musicienne: les chemins de la musique de l'oreille ao cerveau*. Gallimard, France, 2001.

[6] Cook, N. Mudando o objeto musical: abordagens para a análise da performance. *Música em Contexto, 1*, 1 (2007), 7–32.

[7] Ferguson, R., Ed., *Christian Marclay*. Los Angeles: UCLA Hammer Museum, 2003.

[8] Freire, C. *Arte Conceitual*. Jorge Zahar Editor, Rio de Janeiro, 2006.

[9] Hegarty, P. *Noise/Music: a history*. Continuum, New York, 2008.

[10] Kahn, D. The Sound of Music. In *Ars Electronica - Facing the future*, Druckrey, T., Ed., ed The MIT Press, Cambridge, Massachusetts, 1999, 192–201.

[11] Kahn, D. *Noise water meat: a history of sound in the arts*. The MIT Press, Cambridge London, 1999.

[12] Kahn, D. (2006, 10/09/2007). Sound Art, Art, Music. *The Iowa Review web 8(1),* 11. Available: http://www.uiowa.edu/~iareview/mainpages/new/feb06/kahn2.html

[13] Kassler, J. C. Musicology and the Problem of Sonic Abuse. In *Music, sensation and sentuality*, Austern, L. P., Ed., ed Routledge, New York, 2002, 321–333.

[14] Kim-Cohen, S. *In the blink of an ear: toward a non-cochlear sonic art*. Continuum, New York, 2009.

[15] Kostelanetz, R. *Conversing with John Cage*. Routledge, New York, 2002 [1988].

[16] Oswald, J. (1985, 10//07/2006). *Plunderphonics, or Audio Piracy as a Compositional Prerogative* (Originalmente apresentado na Wired Society Electro-Acoustic Conference, Toronto, em 1985). Available: http://www.plunderphonics.com/xhtml/xplunder.html

[17] Russolo, L. The art of noise: manifesto. In *Audio Culture:readings in modern music*, Cox, C., Ed., ed Continuum, New York, 2004 [1913], 10–14.

[18] Schafer, R. M. *The Soundscape*. Destiny Books, 1993.

[19] Schannon, C. E. The Mathematical Theory of Communication. *Bell System Technical Journal, 27*, (July, October 1948), 379–423, 623–656.

[20] Subotnik, R. R. *Deconstrutive Variations: Music and reason in Western Society*. University of Minnesota Press, Minneapolis-London, 1996.

[21] Weber, M. *Fundamentos Racionais e Sociológicos da Música*. Edusp, São Paulo, 1996.

Audio Examples

The mentioned audio examples are available freely on the epOs publishing web page: http://www.epos.uos.de/music/books/s/sewe012/sound/index.htm.

SOUND 1: »dWig« by Plunderphonics

SOUND 2 : »+ -« by IKEDA

SOUND 3 : »Execution of Intelligence« (exerpt) by Karkowski