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### What was Left From Experimentation? A Discussion on the current role of Electroacoustic Music to the New Generation of Sonic Artists in Brazil

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#### Abstract

This article discusses whether electroacoustic music could still be considered an experimental musical practice today, even fifteen years after Jean Piché's statement about its "terminal crisis" (2003). We will approach the term *experimental* by revisiting its use by Pierre Schaeffer, and correlating it with Jacques Attali's concept of *subversion* and Tom Zé's *procuratividade*. It seems to me that the entry of electroacoustic music at universities and research centers worldwide has resulted in a tacit agreement among its practitioners and teachers and the *Fields of Instances of Reproduction and Consecration* (BOURDIEU, 2007). To know if this agreement has happened it is important to understand what has happened to the *experimentation* practices for composing electroacoustic music today. Also, the educational practices for teaching electroacoustic music at those universities and research centers are imperative for the discussion. For this reason, Paulo Freire's texts and thoughts are elucidative. In Brazil, despite the fact that a new generation of sonic artists have been taught in renowned universities by well known and respectable electroacoustic music professors and composers, some have chosen not to work under the scope that encompasses its practices, considering it too academic and with little space for *experimentation*. Why? For a group of those artists, the founders of the independent label Seminal Records (IWAO, CARON, et al, s/d), *electroacoustic music* is not the most suitable *tag* category they could use to refer to the productions they release (CAVALCANTE, IWAO, CARON, 2014), even when many of these albums could somehow be perceived as electroacoustic music. I will finish this article by examining four of the Seminal Records albums from four different composers as means to understand what has happened to experimental practices in composing electroacoustic music today, and why it is perceived as a conservative musical practice to the new generation.

#### 1. Introduction

Fifteen years have passed since Jean Piché's statement about the "terminal crisis" of "classic electroacoustic music" (2003). Piché's critique states that electroacoustic music's zenith was from 1990 to 1995 "with the works by Francis Dhomont and some of his colleagues", and that "the value of pure experimentation declined vertiginously after the democratization of the means of production" (2003:1). At that period of time, digital technology was becoming cheaper and available for the general public, which, as we all know, created an impact in the

whole systems of production (including music), information, communication and in the ways of thinking.

From that time on, it is noticeable that a new generation of sonic artists have emerged. In Brazil, despite the fact that many of them have been taught in renowned universities by well-known and respectable electroacoustic music composers such as Vânia Dantas Leite, José Augusto Mannis, Fernando Iazzetta, Denise Garcia and Rodolfo Caesar, some have chosen to work with sonic art in a different way. For the younger founders of the independent label Seminal Records (IWAO, CARON, et al), *electroacoustic music* is not the only possible *tag* category used to refer to the albums they release: the label also includes “*noise, electronica, free improvisation, conceptual and bizarre productions*” as its search categories (SEMINAL RECORDS website<sup>1</sup>). In an interview to Amanda Cavalcante (2017) Iwao, an educated composer from Campinas University<sup>2</sup> and master in musicology, said that the label has released only one electroacoustic music album<sup>3</sup>, “[but] it is not something we normally [do], because it is generally related to a separate [musical] circuit, connected to the universities” (2017). Besides the fact that they still use the *electroacoustic music tag* on the label description, this is considered to be the least suitable one for it<sup>4</sup> (*Ibid*).

Some artists and professors debate that electroacoustic music developed and enclosed itself as a canonical paradigm on its own: with its way of thinking about music, form, sound, in its practices and techniques. In other words, some consider that it has become too academic, which could be understood as a kind of music that divorced itself from experimental practices and thoughts. This perception, among others, is at the core of Piché’s statement mentioned above and we believe that it also has to do with concerns about the role of electroacoustic music today as it has been discussed by many composers, writers and musicologists for a while now (Emmerson: 2008; Landy: 2007; Caesar: 2012; Waters: 2000, and others). Rodolfo Caesar (2010) talked about what he described as the *institutional loop* in the music courses at universities, focusing on electroacoustic music. He perceived how we kept returning to subjects like musical *organization*, the *non-referencing* paradigm of sound, and how we still approach musical analysis exclusively by the *music’s organizing principles* and rarely proposing discussions that go beyond that<sup>5</sup>, even in 21<sup>st</sup> century. Caesar’s article is a critique to this *institutional loop* over the same Kantian and post-Kantian principles towards music analysis and thinking, and, as I will discuss, has a direct connection with the four Seminal Records’ artists’ opinions presented in this text. It is also possible that his writing is directly linked to Bourdieu’s concept of *field of instances of reproduction and consecration* (2007).

*The academic encapsulation* of a music genre is most often seen as a peril for its creative aspects and a path to its *stagnation*. Probably this has to do with a pedagogical necessity: to become a discipline at a university and other academic courses for professional formation,

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<sup>1</sup>Seminal Records: <https://seminalrecords.bandcamp.com/>

<sup>2</sup> Universidade de Campinas, UNICAMP, in the city of Campinas, São Paulo state. It is a well-known and respectable public university in Brazil, with important research facilities and renowned professors and researchers.

<sup>3</sup> *Música Eletroacústica-10 anos (Electroacoustic Music – 10 years)* by Alexandre Fenerich (<https://seminalrecords.bandcamp.com/album/m-sica-eletoac-stica-10-anos>).

<sup>4</sup> On the website the label is described as an “independent label from Brazil focused on experimental music including electroacoustic, noise, electronica, free improvisation, conceptual and bizarre productions.” (<https://seminalrecords.bandcamp.com>)

<sup>5</sup> Caesar quotes the Sumanth Gopinath’s analysis of Steve Reich’s *Come Out* (in Robert Addilgton’s book *Sound Commitments: Avant-garde Music and the Sixties*) as an example of what could also be an analytical approach towards music.

music aspects such as theory and techniques should be subjected to a systematic process. This is a logical and comprehensive path and most of the times a difficult one to avoid or surpass; and when a systematic process happens, there is a great chance that the knowledge subjected to it becomes a *dogma, plastered* in an (almost) immutable way.

Has electroacoustic music knowledge, practice and thinking, in the scope of the situation mentioned above, stagnated? Has it become a kind of *conservative dogma* to be taught in classes of composition and as so become part of the *field of instances of reproduction and consecration* (from now on *IRC*) as discussed by Pierre Bourdieu (2007)? In Bourdieu's theory, the *field of restricted production*, which perhaps would include the ways of thinking, discussing and producing electroacoustic music, is the one which needs a special code to be decoded. By *decoding* he meant to have access to special education and educational institutions, such as universities, museums and research centers. For Bourdieu, to understand the *field of restricted productions* it is necessary to understand its relations with the *IRCs* – museums, universities, schools, and others – as means to consecrate (legitimate) it and to conserve its own “capital of symbolic goods” (*Ibid*: p.117). This debate is important to understand how a new generation of Brazilian's sonic artists perceives the electroacoustic music *terminology* and practices today.

In this article our method to unfold and discuss those questions will be approached the term *experimental* by correlating it with three concepts: Jacques Attali's *subversion* (2001); *experimental* as a *method* for “direct constructing” (SCHAEFFER, 1948,1967; CHION, 1991); and the concept of *Procuratividade*<sup>6</sup> created by Brazilian composer Tom Zé (OLIVEIRA, 2014). Those three concepts will be compared to the way electroacoustic music has been taught at some Brazilian universities nowadays in order to understand if its knowledge and practices stagnated and became part of an academic field, legitimated as an *IRC*. These concepts will be unfolded in the light of four sonic artists albums released by Seminal Records – Henrique Iwao's *Coleções Digitais*, Sananda Acácia's *Quasicrystal Q.C.*, Paulo Dantas' *Cidade Arquipélogo* and Bella's *Facies*, selecting some of its tracks to be discussed. Those works are briefly compared with some “classical” electroacoustic productions by composers such as Pierre Henry, Rodolfo Caesar and Luc Ferrari, and *hybrid* compositions by Holly Herndon and Robert Normandeau.

## 2. Experimental: Reviewing A Term

The term *experimental* has been used and discussed for a long time in reference to many genres and styles of music, musical methods and approaches, sound material, philosophical thinking and ethical and ideological attitudes towards compositions and performances. In short, it has had different meanings for different groups of musicians around the world, not being restricted to one musical genre or style, but encompassing many works from vocal and instrumental to electroacoustic music. In the realm of electroacoustic music, we could trace its origins in Pierre Schaeffer's descriptions of *musique concrète* as a methodological approach to sound analysis and composition, a method for direct constructing (1967:16) which were inseparable from his philosophical (aesthetical) and ideological thinking, and the material used to compose.

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<sup>6</sup> *Procuratividade* is a Portuguese portmanteau blending the verb *procurar* (to search) and the noun *atividade* (activity). Translating to English, this portmanteau word could be something like *search-activity*.

According to Carlos Palombini (1998), the years from 1953 to 1959 encompass Pierre Schaeffer's *experimental music* phase. This term, used by the *Groupe de Recherches de Musique Concrète* (Group for Concrete Music's Research, *GRMC*), rallied *musique concrète*, *elektronische Musik*, tape music and exotic music" (*ibid*). In 1953, the GRMC, presided by Schaeffer, organized the *First International Ten Days of Experimental Music*, supported by UNESCO, in Paris. The *Revue Musicale* was responsible for a special edition concerning the referred event - *Vers une musique expérimentale*, named after Schaeffer's article – but was not published by its editor Albert Richard until 1957. Schaeffer's article was republished in the 1977 edition (*ibid*).

## 2.1. "Sorcerer's Apprentice"

"How can one not pursue, even with  
merciless scruples, the anxiety of a sorcerer's apprentice?"<sup>7</sup>

(SCHAEFFER, 1977:102)

The First International Ten Days of Experimental Music was an attempt to exchange experiences coming from composers from France, Germany, Italy and United States, but not exclusively (RICHARD, SCHAEFFER, et al:1977). Robert Barras presented what they call *exotic music*, meaning music from outside the Europe-USA axis<sup>8</sup>. Also, Herman Scherchen presented a concert entitled *Dépassement d'Orchestre* (Orchestra Overtaking) with works going from Bach to Webern (*Ibid*:1977).

In his article *Vers une musique expérimentale* (Towards an experimental music), written for the 1953's unpublished edition of *Revue Musicale*, Schaeffer discussed the approaches towards the new music - the experimental music - from his own ground: *musique concrète*. He portrays the path he had walked during the first five years of his research and experiments at the *Studio d'Essai*, summarizing his ideas and methods, comparing them with the experiences in *elektronische Musik* and *tape music*, discussing the controversies created by the *misunderstandings* coming from some of his critics, and pointing in a philosophical and also objective way towards his convictions.

Schaeffer begun it using a negative (and ironic) discursive strategy, listing nine of the facts that should have been minimized if experimental music were not in course. In short, the nine facts were: the electronic sounds are of no musical interests; the *prepared* instruments situation; the use of techniques such as slowing down the tape recorder, or playing the tape in reverse as resources for cartoons; the *objet sonore* created with noises and other sounds for the *musique concrète* by combining the techniques mentioned earlier; the three dimensional sound space; the limits of notation symbols in dealing with complex sounds; the question on the preconceived composing methods when referring to the musical composition practice in Western art music; the theoretical approaches over the experimental ones; the problems of the autonomy of the music, that supposedly allow it to exist by itself, without the need to be listened to. He dealt with those aspects in an almost syllogistic and pedagogical way, confronting them with logic by means of his experiences at the *Studio d'Essai* and the works resulted from it. He described a new kind of music, not only in its compositional aspects, but

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<sup>7</sup> "Comment ne pas poursuivre, même avec un scrupule d'impiété, une inquiétude d'apprenti sorcier?"

<sup>8</sup> *Exotic music* is certainly a terminology that the nowadays Post-Colonial studies, ethnographic researches, and others would not agree with.

also as one that works with new sound materials and recreates the habits on both composers and listeners; a music based on a new paradigm that encompasses not only the notes as fixed pitches, but all possible sounds<sup>9</sup>. This invites listener and composer to reprogram the way he or she listens to music and sound; or as Joanna Demers (2010) wrote six decades later, talking about a similar, but not the same context: “(...) [the] electronic music sounds and behaves different from conventional music (...)” (2010:149), and this demands new ways of listening to it. The composers are then impelled to create new methods to approach composition, driven by the aural potentialities of the sounds he or she has at their disposal. This new paradigm challenged the Western musical tradition, and in the 1950’s, the first stage of Schaeffer’s researches and experiments, they seemed to provoke a rupture (which in many ways they did).

The article is a systematized and summarized document that presents, in Schaeffer’s terms, the motives, the needs, suggestive ways to accomplish this rupture, and its historical background. For Schaeffer no rupture happens by force, or “necessarily by an explosion, nor even imposing itself by violence” (1977:102), but gradually, fracturing each aspect of what is being ruptured, little by little. That demands time for a social change of habits to occur, as it happened before when the phonograph, the gramophone, the radio and the cinema first appeared. The composers not only should have to learn the new tools for recording and transform sounds, to rethink their strategies towards musical composition, but also to review all their concepts (and preconceptions) about music, musical theory, noises, *écriture*, space, among other subjects. This, in its turn, means the need of “time and labour”<sup>10</sup>: in other words, *experimentation*. “Before composing artworks, carry out *études* (...)”<sup>11</sup> (1967:30).

In the core of the rupture process mentioned above are the characteristics of the historical period where the *experimental music* was taking place. As Schaeffer points out, it was a time for changes “that demand[ed] us to rethink everything”, even the music (1977:103). And the changes he was proposing, the rupture, wounded (or at least had the power to do it) the pitch of Western (European) musical tradition.

Traditions’ main social functions in the modernity, according to Anthony Giddens (1996), differ from pre-modern age, a time where the function of lettered reflections was still limited to the enlightenment of tradition. In modernity, “reflexivity takes on a different character”:

“It is introduced in the very basis of system reproduction, such as thought and action are constantly refracted back upon one another. The routinization of daily life has no intrinsic connections with the past at all, save in so far as what ‘was done before’ happens to coincide with what can be defended in a principled way in the light of incoming knowledge. To sanction a practice because it is traditional will not do; tradition can be justified, but only in the light of knowledge which is not itself authenticated by tradition. Combined with the inertia of habit, even in the most modernized of modern societies, tradition comes to play a role. But this role is much less significant than is supposed by authors who focus attention upon the integration of tradition and modernity in the contemporary world. For justified tradition is tradition in sham clothing and receives its identity only from the reflexivity of the modern.” (GIDDENS:1996:38)

Schaeffer reflections do not take aside the Western musical tradition but question the fundamental basis of its creation and thinking until that time: the note (pitch). He is careful in

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<sup>9</sup> In the *Traité*, Schaeffer will talk about the *objets convenables* (suitable/appropriate objects) for the musical composition (1967:373).

<sup>10</sup> *Time and labour* correspond to Schaeffer’s fifth rule created by Schaeffer to research/compose *musique concrète* (1967:30).

<sup>11</sup> *Studies*. This is Schaeffer fourth rule to research/compose *musique concrète*.

saying that “the note process could be at its time only when we were provided with a group of radical different sound phenomena, thanks to the machines that can do that” (1977:104). This was a wise insight, because even the consecrated electronic instruments at that time (ondes martenot, trautionium, theremin, and others) favored the pitches in a traditional sense; or seen from a different perspective, the musicians who used to play them or compose for them opted, mostly, for a conventional approach.

The *musique concrète* then played here a fundamental role. It approached the matter in a different and unconventional way, working over noises, cutting “the gross material of sound” (*ibid*:104), learning how they operate, how to describe them, how to transform them. This was the genesis of probably one of the most important and controversial musical concepts in 20<sup>th</sup> century: the *objet sonore*<sup>12</sup>; and the empirical method was the path chosen by Schaeffer to lead him to it (*Ibid*:106). It was not a substitute for the concept *note/pitch* itself, but something that went beyond it, encompassing it but going further in its concept (in a different and more complex way); it was a way to understand and work with every sound property in depth, pitches included, freeing them from the limited and exclusive instruments scope and reintegrating them to the more embracing sonic world. The *objet sonore* had the potency to reinvent musical tradition, as much as tradition could only leave from the “sham clothing” peril of its justification by means of its acceptance as part of the history of civilization, and so part of a continuously changing of ideas, of ways of living, of new experiments in arts and all human creations; in other words, humanity as a continued transformative force. But how far would Schaeffer, the *sorcerer’s apprentice*, the *violator of sanctuaries* (*Ibid*:103), have gone?

Schaeffer’s article seems to confirm the idea of rupture in the way I am emphasizing especially when he claims that the “experimental music that we are dealing with goes beyond a new dissonance, or even the refusal of the range [of the scales]”; it is a change of direction, not as a curve with an audacious slope, but a completely new material and methodological approach (*Ibid*:109-10). In his 1967 book *La Musique Concrète*, ten years after publishing *Vers une musique expérimentale*, Schaeffer re-exposes a scheme of procedures for musical composition he devised in 1950 where he differed what he called the *habitual music* (the so-called abstract, instrumental notated music) and the *new music* (the so-called concrete music/*musique concrète*).

Habitual Music (so-called abstract)	New Music (so-called concrete)
Phase 1: Conception (mental)	Phase 3: Composition (material)
Phase 2: Expression (ciphered)	Phase 2: Sketch (experimentation)
Phase 3: Execution (instrumental)	Phase 1: Materials (manufacturing)
(from abstract to concrete)	(from concrete to abstract)

Table 1. Schematic comparison (SCHAEFFER:1967:16)

<sup>12</sup> Sound Object.

When reading the scheme proposed above we could think that both new music's phase 2 and 3 prescribe an experimental method and new material for *experimental music* composition. But, as far as *experimental music* concepts concern, was that the full (summarized) picture?

## 2.2. The notion of Experimental Music in Pierre Schaeffer

The *Traité des Objets Musicaux* (1966) remains one of the most important and controversial music books of the 20<sup>th</sup> century (to say the least), not only because it reinforces the rupture created by a complete change of focus regarding what we used to know about music, how we used to think about it and how we have been conceiving it for centuries in Western world societies<sup>13</sup>, but also because it is unique, until today, in its systematic way to approach *sound studies*, not only for applied musical purposes (composition, education, among others), but, and maybe above all, for reprogramming the concept of music in its entirety, expanding it from beyond the notes, scales, rhythm and notation for the first time in history. It is also true, as I will suggest, that the promise to achieve its goals was not completely fulfilled.

If we stick to the phase's subdivision concerning Schaeffer's works (theoretical and practical), as proposed by Carlos Palombini (1998), the *Traité* belongs to the one named *musical research* (from 1958 onward). This is the main subject of the last chapter of the fourth book, named, as it should be: *Musical Research*<sup>14</sup> (*Ibid*:360-385). In it, the indication to produce *studies* before artworks reappears; the same advices were presented in the article *Vers une musique expérimentale* at the *Revue Musicale* and repeated at 1967's *La Musique Concrète*. As Schaeffer puts it, it was a *come and go* subject in his research and writings. Other topics, put as postulates and rules in the 1967 book, such as *language research*, are also resumed and deepened. This chapter is of special interest for us due to the fact that it clarifies what *experimental music* means for Schaeffer; or even better, what aspect of music production and musical thoughts acquires or admits an experimental approach. For Schaeffer the answer is what he calls *fundamental research* over the new materials and methods for musical composition.

The scope of Schaeffer's *fundamental research* and its experimental method are related with the schema he created for the *new music* (table 1) process and each of its phases. In it, experimentations are the main method to approach material for musical creation. This is probably one of the keys to understand what he meant: experimental music as those which the process of selecting, cataloging, understanding and processing the material is an experimental one; a *try and error* exercise for both the creation of sound objects and composing. There are, then, two structures to be analyzed: the one pertaining to the realm of the sound object itself, and the one pertaining to the composition. The probable result, the music created, can be, in this way, anticipated.

In comparison, John Cage's (2011) writings concerning the *experimental music* concept is a completely different approach. First, for Cage, the outcome of an experimental music composition is at first unknown to the composer: he or she does not know what the result is going to be (*Ibid*:13). For him, the composer becomes a listener of his own works, and no expectations are possible in this way. Each composer develops his or her own techniques to accomplish the task of creating a piece of music without foreseeing its outcome.

“Those involved with the composition of experimental music find ways and means to remove themselves from the activities of the sounds they make. Some employ chance operations, derived from sources as ancient as the Chinese *Book of Changes*, or as

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<sup>13</sup> Europe and its former colonies

<sup>14</sup>*Recherche Musicale*.

modern as the tables of random numbers used also by physicists in research”.  
(CAGE:2011:10)

Cage talks about the sound without the formal relations that characterized the post-Renaissance European art music culture and history (*ibid*) and does not follow the same path as Schaeffer in his sound research, *limiting* itself to the structuring relations between sounds while momentary events. Those sound events cross each other, overlap and merge. For the North-American experimental music composers, the experimentation happens before and along the composition process.

For Schaeffer it was a completely different thing:

“Both antagonistic music from 1950-1955, the concrete and the electronic, tied the game; both too much ambitious: one dreaming of conquering the sound world all at once, and the other trying to create all music by means of synthesis. Their revealing traits, both of them, from the temptation of what is possible and what is not, mark a historical fact: whenever possible, make music bypassing the instrumentalists, the instruments, and the *sofège* [musical theory]. (...) The most remarkable works, named electronic – *Omaggio a Joyce* by L. Berio, and *Gesang der Junglinge* by Stockhausen, appeals to all sort of sounds and make two releases: one over their procedures and the other over their accomplished aesthetic. It doesn’t matter that the term *electronic* is attached to that kind of music, when in fact they are electro-acoustics. For myself I prefer the term *experimental*, in the way that anyone associating instrumental sounds on a tape recorder, vocal sounds, and those that come from acoustic sound sources rather than electronic oscillators, cannot deny finding himself in full experimentation.”  
(1966:24-25)

For Schaeffer the experiences in music occur inside the studio, with tasks that aim to identify, qualify and classify the sounds for musical composition purposes. The experimental practices in the studio also influence the compositional process, sometimes merging both activities. Little by little the experiences described in *À La Recherche d’une Musique Concrète* (1952) give way to a new methodological approach, although experimental in a different sense. As Schaeffer puts it in *La Musique Concrète*, “(...) the music is an art, and to say the truth, besides the passion it arouses, it does not have neither an experimental method, nor the aspiration to have one. (...)” (1967:33). This statement makes understanding the term *experimental music* in the scope of Schaeffer’s ideas more complicated. It concerns his research methods and materials, that is for sure; his unprecedented rupture in relation to the common ground from centuries of Western musical tradition - the music *a priori*; a complete shift in the way we listen to music and make music. But not the music in itself? Cage wrote that, in the beginning of its usage or attribution (by others) to his practice, the term *experimental* was not one that he would promptly adopt. He revealed that at first, he was not in favor of it at all. At that time, it seemed to him that “the composers knew what they were doing, and that the experiments that had been made had taken place prior to the finished works (...)” (2011:7). In other words, at that time Cage was considering that experiments took place before the music composition *per se*, something close to Schaeffer’s quotation above. When Cage realized that music was something to be listened to, as an experience for those who listen to it, he *became* a listener himself; then the term *experimental music* made sense for him. As he wrote, there were two options for the composers: to not give up one’s attempt to control sound, complicating his or her musical techniques “towards an approximation of new possibilities and awareness”; or to “give up the desire to control sound, clear his mind of music, and set about discovering means to let sounds be themselves rather than vehicles for man-made theories or expressions of humans sentiments” (*ibid*:10).

The differences between both composers ideas and practices are clear: for Cage we should let sound be itself, while for Schaeffer sound is experimental material the deserves to be analyzed in an empirical way, described, and classified in abstract categories, in its types and morphologies, to then be used to create music: first we need to know the sounds at our disposal, then control them with the purpose of creating musical works.

Certainly, Schaeffer defied the common ground of Western art music while searching and developing methods that were never devised before. The *Traité*, in this respect, is his major work. In it he was able to develop a meticulous theory based completely on his empirical researches and experimental practices at the studio. But all this created a paradox: recorded sound potentiality, its forces, also resides in its own characteristics, its own life, its capabilities to flow in and out the terrain of cultural signs and its meanings, not only as *sound objets*, or even worse, as *objets convenables*<sup>15</sup>: an abstract entity extracted from the exhaustive efforts demanded by *écoute réduite*. That kind of paradox was what Douglas Kahn observed and criticized (not specifically in respect to Schaeffer's ideas and practices), when he wrote about his perceptions of the results of phonographic registers of sound in music:

“(...) Phonography did, nevertheless, promise an alternative to musical notation as means to store sonic time and, in the process, deliver all sound into artistic materiality, and musical discourse responded by trivializing the complexity of significant sounds and their settings (...)” (2001 (SCHAEFFER, *La Musique Expérimentale* 1977) (PALOMBINI 1998):103)

I do not agree that Schaeffer experimental methods, his fundamental research, trivialized “the complexity of significant sounds and their settings”; although Kahn's quotation hit the target if we consider Schaeffer's intention towards the elimination of all sound references to the sound sources: one of *sound objects* the main aspects. But even though, that is not the point: Schaeffer's aesthetic and methodological choices made the development of a lot of incredible musical works (from himself and many others) possible, not to mention the richness of his insights towards sound, his place in musical education and theoretical thinking, and his contribution to music composition. The reading I made from Kahn's quotation above is that even though the rupture has been done in the realm of the expansion of materials for musical creation, even though new unique and unprecedented techniques were devised, even though a new philosophical approach for musical studies, analyses and conception (thinking) were delineated, and a new way to listen to and approach sounds was created, the musical structure based on the principal of maximum possible control over the sound events (or even more precise, *sound objects events*) was still at play. In restricting ourselves to Cage's sense, *musique concrète* could not be considered experimental; in Cage's and Kahn's *let the sounds be themselves* approach, *musique concrète* was not an experimental practice at all; but regarding its methods - the *fundamental research* - the efforts, practices and thinking towards a music created from all sound materials, is undeniable power, exerted from a radical experimental practice towards a new music and also a new concept of music in itself.

Is Schaeffer's proposal for a *fundamental research* still being adopted by electroacoustic music composers today? Have they deepened it, perfected it, changed it, abandoned it? What has happened over the years after the era of “*classical electroacoustic music*” that provoked composers such as Jean Piché to declare its terminal phase? How do the new composers, who refuse the term *electroacoustic music* to describe their own work, approach an *experimental electronic* (electroacoustic?) music?

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<sup>15</sup> Convenient [sound] objects.

### 2.3. Rupture as subversion: experimental electronic/electroacoustic music?

Schaeffer's experimentations' methods, in my view, go beyond the sound analysis; beyond the methods to reinvent the way we listen to sounds; beyond the acknowledgement of all sounds potential for music creation instead of focusing only on the instrumental/vocal's notes; beyond the *objet sonore* and beyond the new music: his project, that encompassed all of this and much more, was a shift in Western cultural perspectives on the concept of music itself, and its expansion. And that is a lot! For me what his work left us is that tradition should be, and can be, reinvented. And if we had properly appropriated his work ourselves, if we had properly understood it, maybe things would be different in our music classrooms today. But who had the initiative to keep crossing boundaries as he did?

Despite all critique to Schaeffer's works (*Traité* included, but not only), some reasonable, many not, the music scenery around the world has changed a lot. But breaking up with something is not a finite task: as educator and education researcher Paulo Freire used to say in the subject of *conscientization*<sup>16</sup>,

“[t]he creation of a new reality (...) cannot deplete the conscientization process. The new reality should be taken as an object for a new critical reflection. To consider the new reality as something that cannot be touched represents an action so naive and reactionary as the statement that the old one was untouchable.” (FREIRE:1979:15-16)

Taking Freire's statement as example I could say that the same principle applies to the process of rupture. Analyzing his quotation above in regard to the rupture implemented by Schaeffer, and in light of Jacques Attali's (2001) concept of *subversion*, we may realize that what was missing in the continuity of the process of rupture in Schaeffer's works was not up to Schaeffer to accomplish (he has done too much already), but to us. And in a way, many things have already been done in this aspect, and are still being done today.

For Attali, noises and music are subversive in nature. As so, they have a straight relation with politics, economy, and also, I may say, with ideology. Music and sound are forms of empowerment and freedom, and this calls for control by the governments, the market and other instances of power, like Pierre Bourdieu's *instances of reproduction and consecration* (2007 (CAGE 2011) (KAHN 2001))<sup>17</sup>. Those instances of power struggle to keep their own views and control over society, economy and culture. As Attali stated:

“It is precisely because the noise is, in its turn, an instrument of power and a source for uprising, the politics are always listening to it with fascination. It is in this way that it reassures itself, that it prepares its orders, prevents the uprisings. All the knowledge are the fantasy of the powerful, and having everything registered is the dream of the policies.” (*Ibid*:16)<sup>18</sup>

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<sup>16</sup> *Conscientization* is the translation of the Portuguese word *conscientização*, which means (and is also translated as) critical consciousness, or as in the online Oxford dictionary, the action or process of making others aware of political and social conditions, especially as a precursor to challenging inequalities of treatment or opportunity; the fact of being aware of these conditions.

(In: <https://en.oxforddictionaries.com/definition/conscientization>).

<sup>17</sup> From now on IRC.

<sup>18</sup> Since it seems that this paragraph has a wordplay, and the English edition of Attali's book omit part of the original content, I will write here the original text in french: “*Et justement parce que le bruit est à la fois instrument de pouvoir et source de révolte, le politique a toujours été fasciné par l'écoute de ses sujets. C'est par là qu'il se rassure, qu'il prépare ses ordres, qu'il prévient les révoltes. Tout savoir est le fantasme de puissants. Tout enregistré est le rêve de polices.*”

In Attali's concept, the order is subverted by the noises and the music: social-political power is put into question, economy and market are criticized, IRCs are put in distrusts (be them relative or not); and those instances of power fight back. The political implications of subversion (and rupture) are also the subject that Martin Stokes (2009) presents in his text on the use of the microphone in public spaces in the middle of the 20<sup>th</sup> century in Egypt. He discusses the role of the singer Ab al-Halim and how the use of the microphone implicated musical (and political) changes. According to Stokes:

“The broader question on how close, quiet, emotional and intimate voices circulated around public spaces in the Middle East (and changed the very nature of that public spaces) was a matter of significant concern and cultural elaboration. For these new voices – circulated by microphones – connected the world of entertainment with the world of revolutionary politics, connected romantic love with the power to command and coerce, connected the heart with the state. Individuals at the centre of new techno-political complex possessed unprecedented powers to control the social and political imagination, powers that appealed to the heart and the ears in a new way.” (STOKES:2009:55-56)

In Joanna Demers (2010) analysis, the basis for an electronic music to be considered experimental is its independent and critique attitude in relation to the market and the mass culture, and as “(...) any attempt to experiment, to take risks, to do the unexpected” (*Ibid*:141). We would increase this scope to encompass the other instances of power and sociocultural controllers as in Attali and Bourdieu. In short, she is defining the experimental electronic music accordingly to each of the three so called sonic arts *metagenres* presented in her book: institutional electroacoustic music, electronica<sup>19</sup>, and sound art (*Ibid*:6). Despite the critiques the experimental electronic music develops towards the culture of mass consumption, they are not an aesthetic experience apart from it; on the contrary, while putting itself as aesthetic superior and autonomous in relation to the market, it is still one of its integral parts and in constant dialog (negotiation?) with it. As Demers points out, the Kantian position towards the art's autonomous aesthetic is refuted by the Marxists since “aesthetic experience cannot be disinterested autonomous or divorced from everyday experience”. It is, once again, a kind of thinking in synchrony with Freire's discussion:

“The conscientization is, in this sense, a reality check. The more conscientization, the more the reality unveils itself, the more it penetrates the phenomenal essence of the object to which we are facing for analytical purposes. For the same reason, the conscientization is not to be ahead of reality assuming a false intellectual position. Conscientization cannot exist without ‘praxis’, or without an act of action-reflection. This dialectic unity consists, in a permanent manner, the way of being or transforming the human world.” (FREIRE:1979:15)

What Attali called *subversion* could be understood in the same way as Freire's thoughts about conscientization. It has to do with a permanent questioning towards traditional models of thoughts and practices and how do we face the challenges in political, economic and social-cultural life as social beings. As Attali, François Bayle (1993) also wrote about subversion but in relation to the experiences in electroacoustic music. For him, the subversion is a consequence of “[t]alking about music through the inner experience that violently provoke the dimensionless universe of all sounds and all noises (...)”, in a manner that “evokes the gaps in the subjects, the irruption of sound images, the painful experiences, its bets and risks”, an “imprudent” manner - because empirical and sensitive, instead of a “prudent and objective”

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<sup>19</sup> *Electronica* is how she identify the musical genre produced by musicians such as *Autechre* and *Squarepusher*, both referred by critics in the scope of the questionable term *Intelligent Dance Music* (IDM). She prefers *electronica* exactly to avoid the bad implications and prejudices that the term IDM raises.

one (*Ibid*:26). This choice between an imprudent instead of a prudent manner has to do with Bayle's urgency of what I refer as a *philosophical, sensible and aesthetic experience* in the place of a rationalized one. It is "perceived as an index which menaces to touch the most severe and intimate instances" of beings, "an obstinate precursor sign against the shoals of the real, an emergent approach to a paradoxical territory" (*Ibid*:27). In another text, Bayle reinforces this idea:

"Experience, first of all, establishes consciousness of the coherence of a unique thing from the diversity of its various aspects. This capacity for synthesis uses stabilizing experience to reduce the world of appearance to a more restricted, more coherent, world of things. Experience then assumes the inverse aspiration from the success of this exercise: to successfully divide, to lose in order to rediscover. By implementing various operations and manipulations, experience locates and produces new coherences, peoples a new space with new "things" (experimental music)." (2009:168)

As an intuitive and empirical experience, "an experience opened to an unknown language, where the intentions and the projected meanings come from its immersion in the realm of sounds" (1993:31), the electroacoustic music subverts while putting in question the "ideologies of knowledge and languages' systems", in a similar way as the *conscientization* process studied by Paulo Freire. Instead of embracing a cartesian approach to create music, to privilege logical and objective systems, the *experimental electroacoustic music* (*Ibid*:32), for Bayle, "provides an exploration field, both physical and concrete, where 'imprudent' hypothesis is not removed, on the contrary" (*Ibid, idem*). The experimental approach here is subversion viewed as a profound rupture, not only in respect to the music's materials, but also in both its human and social sensorial aspects.

In this article I am considering the *experimental electroacoustic music* as a subversive approach to music creation in both senses: Attali-Bayle's one and Schaeffer's rupture. That is the basis for the following discussion.

### 3. Experimental Electroacoustic Music and the IRCs

Theodore Adorno, in a different context and before Schaeffer's publications, discussed the origin and relation of the musical materials as the same as the social process. In a way we can understand this as Paulo Freire's discourse around conscientization, or explicitly in Adorno's reflections, the means of resistance to the culture industry. In the *Philosophy of New Music* he unveils the materials role for and as part of the *new music*. He focuses on the relation between society and the emergence of the material, linking both as an indivisible whole.

"The demands of the material imposed on the subject arise, rather, from the fact that the 'material' itself is sedimented spirit, performed socially by human consciousness. This objective spirit of the material, as erstwhile and self-forgotten subjectivity, has its own laws of movement. As the same origin as the social process and ever and again laced through by its traces, what seems to be strictly the motion of the material itself moves in the same direction as does real society even where neither knows anything of the other and where each combats the other. Therefore, the composer's struggle with the material is a struggle with society precisely to the extent that society has migrated into the work, and as such it is not pitted against the production as something purely external and heteronomous, as against a consumer or an opponent." (ADORNO:2006:32)

The new materials and the methods for musical creation were, in the sense approached by Schaeffer, what experimental music concept was about. It was a major rupture in the 20<sup>th</sup>

century Western music, and in my view, based on Attali and Bayle, an act of social and artistic subversion. For Adorno, the *new* material devised by Arnold Schoenberg was an ideological choice, a struggle against capitalist society. In a way, we can think of it also as subversive, as is the music composed with it.

The new music subverts the ruling and traditional norms that are considered pillars to musical studies. The theories and practices based and consecrated in centuries of music history, legitimated by instances of social, political, cultural and ideological powers, reproduced as part of tradition, consumption and social use, are threatened, in this way, by the new ones. It was not by chance that one of the developments of the students' movement in Paris in May 1968 was the education reform at the *Conservatoire* (LASPIÈRE:2018): “*Plus de Gounod, du Xenakis!*”. This had a direct consequence for electroacoustic music, because after 1968, along with Schaeffer's Groupe de Recherches Musicales (GRM) and the French National Audiovisual Institute (INA), the first classes of electroacoustic music were created at the *Conservatoire de Paris*, one of the most traditional and prestigious institution for the Western art music. This legitimated and consecrated electroacoustic music as a “serious” art form (CHION, REIBEL:1976:110).

In 1968 France, music students, as part of a profound social movement for political, educational and cultural changes, broke up the traditional paradigms, bringing the social struggle inside school walls. Even if Victor Tribot Laspière considers that nowadays not much was left from those events of May, he recognizes that, at least for a brief moment, classical music was not disconnected from society, “but was one of its active actors” (2018)<sup>20</sup>. This could have been a promise for a complete change of paradigm in favor of what Paulo Freire called a *liberating education*.

To Freire (2013), *liberating education* is the complete opposite of what he called the “*banking*” *conception of education*: the one where teachers *deposit* their knowledge into the students' minds, like we deposit money into a bank account, making them memorize information instead of reflecting on them in a dialogic manner. To reach freedom, in Freire's concept of *liberating education*, teachers should provoke students to think by themselves, reaching to their own conclusions. Otherwise, the *banking conception of education* is part of the “instrumental ideology of oppression” that make the receptor reproduce the received information instead of experiencing it by their own *objective reality* and transform it. For Freire “(...) there is only knowledge through invention, reinvention, in the humans' restless, impatient and permanent search throughout the world, within the world and with each-other” (2013:33). The educator that works into the scope of the *liberating education* is always problematizing the topics he selected to discuss with the students. The students than act as critical researches in open dialog with the educator, himself also a critical researcher. This approach makes us apt and available to change our reality and search for means to transform it and the world. Those reflections are not about an abstract and isolated human being, “but about the humans and its relations with the world” (*Ibid*:40). This was a completely different paradigm for education.

Pierre Bourdieu studies and critiques towards the educational system of his time, which in a way could be considered as similar to what Freire's defined as an *instrumental ideology of the oppressor*, are still at play today, even if in a different way. Bourdieu defined the *instances of legitimacy* as the ones in which the main instrument for conserving the actual (and traditional)

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<sup>20</sup> LASPIÈRE, V. T. *Mai 68 au Conservatoire de Paris, un mois et demi d'utopie musicale*  
In: <https://www.francemusique.fr/actualite-musicale/mai-68-au-conservatoire-de-paris-un-mois-et-demi-d-utopie-musicale-61160>, 2018

*fields of production* was the educational system. In its turn, the educational system is the main instrument for the creation of hierarchical and competitive behavior among its members and their *products*. In this situation we may also refer to complex political, ideological, economic and social-cultural powers that create strata for legitimation of knowledge and production; and also, for social domination and inculcation of the hegemonic ideology.

The entry of electroacoustic music into the *Conservatoire* unveils my suspicions about the results of the relationship between what Bourdieu (2007) called *instances of reproduction and consecration* (IRC) - universities, museums, schools – and the electroacoustic music itself. In short, for Bourdieu, the *field of restricted production* (FRP), the one that comprises the *serious* (or *classical*) music, the science, the *fine arts*, and so on, is constituted by works that are accessible only for those who have the codes to decipher them. In Western society the IRCs are the instances where those codes are taught, legitimized, and conserved. The creation of a new code needs the acceptance of the IRCs paradigms to be taken into consideration and to be legitimized as part of the *field of restricted production*. That is what Chion meant when he said that electroacoustic music was only taken as a “serious” musical genre after its acceptance as part of the cadres of the *Conservatoire*. As he explained later, electroacoustic music “was not born in the patron’s halls, not even at institutions and conservatories, but at the shadows of the *mass-media*, subverting the radio network’s studios from their radiophonic functions” (1976:10). *Musique concrète*, at least in the very beginning, was not in the same place as the other art forms, the ones that were already consecrated as part of the field of restricted productions. This is to be considered in respect to the experimental practices Schaeffer developed, and bring up the question about the consequences in changing the instances of legitimacy may have caused to electroacoustic music, both in its compositional and educational aspects.

Some may say that since Bourdieu’s analyses too much has changed in IRCs domains; the same could be said about Freire in relation to the changes in the scope of education theories and practices. The question that persists is: if that is the case, what is the (negative) reason for composers such as Jean Piché, Rodolfo Caesar, and the Seminal Records group to label electroacoustic music as an academic art form? What do they mean by that? What about Joanna Demers (2010) sonic art *metagenres* categories in which, despite the fact that she still includes the electroacoustic music as a form of experimental music, is considered as the institutional side of sonic arts? Is the academic approach towards music production, as part of the *field of restricted production*, an obstacle for experimental musical practices? It is possible that the fact that electroacoustic music sonorities, its forms, and its means for performance, associated with all the technology involved in its creation, still sounds weird to the general public ears, having so contributed for Demers to create what I call a *paradoxical categorization*? Based on her concept of experimental music, which involves both the critique and independence from the market and taking risks doing the unexpected, the paradox becomes clear: the *field of restricted production*, and the culture industry (Bourdieu, Adorno) are, apparently, opposite poles in a society, competing forces with similar methods to consecrate, reproduce and legitimize their own products and members actions, thoughts and production. Electroacoustic music than would be in the side of the FRP’s critique to the market. At the same time, been part of FRP limits its scope for taking risks and *doing the unexpected*. Could that enable composers to experiment? Paradox. And I assume that the reason why Demers named it *institutional electroacoustic music* is that she acknowledges electroacoustic music as part of the *field of restricted production*, that in its turn is legitimated through the mechanisms, arbitrary ones as Bourdieu puts it (2007:120), developed by the

*instances of reproduction and consecration*: universities, conservatories, museums, art galleries, among others.

Now the question to be asked in relation to the possibility of an *experimental electroacoustic music* today is: is it enough to distinguish between experimental and non-experimental music just for their place in the dispute between two *instances of legitimacy and power*, the university and the market?

There must be a place in between, a place in which the answer is not in belonging to or out of the universities, in or out of the culture industry, in or out of the streets; a place not only built upon the materials (new ones or otherwise) for music creation, but the one built upon the dialogic methods suggested by thinkers like Paulo Freire, where the answers to the questions depend directly on a continuous exchange of experiences. This place is the result of abolishing all *banking educational concepts*, now viewed as a metaphor for all imposed restrictions, categorizations, and means for legitimizing thoughts and production, in favor of invention and reinvention upon the knowledge and information at our disposal. In other words, subvert any closed conception and ideologies given *a priori* in any instances of life.

#### 4. Electronic Music and the Four Seminal Records Composers

I conducted interviews with the four Seminal Records composers chosen for this article. They all agreed that electroacoustic music became too institutional, limiting its productions to the scope of the universities, concert halls and research centers, disconnected from contemporary society. In a way, it is possible to interpret their critiques towards the lack of renewal spirit in arts, the economic and political adaptation to the IRC disputing its space within the *field of restricted productions*. In other words, distancing itself from experimental practices and stagnated as a musical form.

Henrique Iwao, Seminal Records' executive producer, had a formal education in composition at Campinas University, and a masters in musicology at São Paulo University. He valued his academic experience but realized that it was closed in an *institutional loop* (CAESAR:2010), into unbreakable norms and historical paradigmatic events without little or no space for debates towards the artistic scenarios in course nowadays<sup>21</sup>. He mentioned the electronic experimental music scenes in São Paulo where, different from the institutional spaces for musical education, artists from all formations and aesthetic views work together to create musical events (discussions, debates, listening environments), shows, concerts, interventions on the street or some other spaces, and to exchange their opinions and critiques to each other's productions. Some of those artists have little or no former academic background in music, coming sometimes from visual arts, theaters, literature; some come from music universities and schools. They all have in common the fact that they are musicians, creating some sort of electronic music. In an interview to Amanda Cavalcante (2017) Iwao said that even though Seminal Records has one electroacoustic music album<sup>22</sup> in its catalog, this is not something they normally release because it "belongs to a separated [artistic] scene – the one connected to the universities" (*Ibid*: 4).

Bella agrees with Iwao. She said that in São Paulo there are few electroacoustic music concerts, most of them happening at the universities (she mentioned UNESP concerts) with poor public disclosure. The concerts' structures, those that took the concert halls and churches

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<sup>21</sup> A critique similar to Rodolfo Caesar's presented earlier.

<sup>22</sup> Alexandre Fenerich's *Música Eletroacústica – 10 anos*.

model (the public in contemplative silence), have little or nothing to do with her life and work. Bella studied music from the age of seven to twenty one but did not attend any university music course. She decided that what is taught there was not of her interest at all. She went to Belas Artes' School<sup>23</sup> at the Federal University of Rio de Janeiro, but soon she quit it.

For Sannanda Acácia, the fact that she has never been formally trained as a musician (she is enrolled in a visual arts educational program at the university) had a positive effect on her because it did not create any aversion to the music courses at the universities, except in relation to general assumptions in education for the arts: conservative and traditional approaches in education, authority, the concept of students as vessels for the teachers' information (Freire's *banking concept of education*). She believes that she would have much to gain if studying the compositional subjects, and states that everything she has learned from that field helped more than did any harm to her work. Sannanda also said that she does not have to publicize her position in relation to the problematic around IRC for the fact that she always assumed an averse and critique position towards any given (and closed) instances of legitimacy in her own life and work.

Paulo Dantas is a composer and professor at the Federal University of the State of Rio de Janeiro. Formerly sharing the composition classes with his department colleagues, Paulo decided not to teach formal composition (instrumental and vocal music) anymore and focused his educational activities on experimental music and musical analysis. The reasons can be traced and related to his own artistic activities. As Iwao, Paulo is formally trained in composition and has a Masters in composition at Federal University of Rio de Janeiro. He has a special interest in music formalization and has studied the repertoire and some contemporary techniques for musical analysis (set theory, for instance) even before beginning his undergraduate course in composition. Paulo is also a creative and very good programmer for computer music programming languages like Pure Data and Supercollider. Despite his multiple interests in relation to music, his musical career as an experimental composer and thinking towards music and musical education seems to create a paradox; for him they all serve to the same purpose: work upon art forms that are directly related to his social-cultural life and interests in experimentation. Artistically he then favored the experimental music scene and performance instead of concert halls format, even if sometimes his works are presented in a more traditional environment.

As briefly described, all four composers presented above have in common a similar opinion and critique to the traditional way IRCs deals with legitimacy of an art work, its politics that favors the old and conventional models of productions, reproductions and reception, or that demands some sort of adaptation from the new practices to be accepted as a *field of restricted production*. Their views, shared by many others, like Caesar, and in a way Piché, had an impact on how electroacoustic music is perceived by them: as a former subversive sonic art form that gradually adapted itself to become part of a field of restricted production; and as so, limiting the dialogical possibilities between it and others sonic arts productions. It is possible to chronologically relate Piché's statement about the *terminal crisis* of the "*classic electroacoustic music*" era to its maturation in training of contemporary composers at the universities around the world.

In Brazil this is especially true, since electroacoustic music, despite the isolated and ineffectual previous attempts, begun to make its official entry as part of the composition

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<sup>23</sup> (CHION and REIBEL, *Les Musiques Electroacoustiques* 1976) (DEMERS 2010) School of Fine Arts.

courses at the universities approximately in the middle of the 1980s when the first institutional studios were created (GARCIA:2012; NEVES:2008).

#### 4.1 The Four Different Sonic Artists Approach

It is possible to view the activities in the experimental scene of those four composers in parallel to what the songwriter Tom Zé calls *procuratividade*. This portmanteau word merging the Portuguese verb *procurar* (search) to the noun *atividade* (activity) created by Zé, is a “poetic way to refer to a continuous experimentation, refractory to any external interventions, especially coming from corporations” (OLIVEIRA:2014:49). Tom Zé is considered one of the founding members of the *Tropicália*<sup>24</sup> movement in Brazil along with Caetano Veloso, Gilberto Gil and others. His permanence as a member of the group was always problematic because his views on songwriting in the 1960’s and 1970’s was different from the other musicians. He considered that the attempts from *Tropicália* to adapt itself to the mass culture reproduction structures could have made it settle down in conformity to it instead of keep creating new song structures. According to Tom Zé, his project for a *descanção* -a concept that summarized his critiques towards popular and commercial songwriting of that time<sup>25</sup>- made him gradually come from a famous songwriter and singer of Brazilian popular music by the end of the 1960’s, to a forgotten one in the 1970’s (*Ibid*:49). This tendency to create new songs, with new forms and structures, based not only on harmonies and melodies, flirting with the *avant-garde* techniques and ideas, goes as far as the time he took courses at the University of Bahia: at that time, similar to the critiques on IRC, he was already proposing to “change the instituted things” (*Zé apud* OLIVEIRA:2014:51). *Procuratividade*’s subversion intentions made Tom Zé approach musical instruments in a different way if compared to its conventional use in popular songs. Its melodic and harmonic properties, and potentialities are in a way neglected in favor of a percussive and noisy approach. The whole spectral space is created based upon decisions made in respect to their functions in each song: the *floor* coming from low sounds, the *ceiling* from high and percussive pitches, the *walls* created by the guitars and the voices as points filling in the middle.

In this way, *procuratividade* can be considered as a mixture of experimental practices with a free approach towards musical realization, but with particular intentions in mind within the scope of some musical style or genre, but not limiting itself to its paradigms. That interest me in analyzing the four albums chosen, and as a way to propose a turning point in electroacoustic music education and practices in favor to a renewal based on its experimental origins. The four albums to be considered are: *Cidade Arquipélago*, *Facies*, *Coleções Digitais* and *Quasicrystal*.

#### 4.2 Cidade Arquipélago

Paulo Dantas’ CD *Cidade Arquipélago*<sup>26</sup> could be considered today in the scope of the *field recording*’s genre, even if that was not the composer’s initial goals. Its songs were produced from sounds recorded during the composer’s staying in Japan for an artistic residence and concerts. As Paulo revealed during the interview I conducted with him, he had no intentions, at first, to conceive an album, but a sound diary: the recording of each place he visited and some events he took part in as snippets of his trip experiences. Afterwards, those recordings

<sup>24</sup> *Tropicália* proposed to renewal Brazilian popular music, incorporating electronic instruments and fusing typical Brazilian rhythms, harmonies, lyrics with pop culture.

<sup>25</sup>The English translation for *descanção* is a difficult one. It means something like derealize the song.

<sup>26</sup> *Archipelago City* (free English translation).

were shared online with his friends. Most of his recordings have been done using a binaural microphone setup and a portable recorder bought in Tokyo after his artistic residence<sup>27</sup>. He devised a method to choose which sound, or which part of a recording, he was going to upload to an internet platform prior to sending the link to some people: every morning he listened to the sounds recorded the day before and then he decided if he was going to select all its content or just an excerpt to be uploaded. When he got back to Brazil, Henrique Iwao reminded him that he had committed himself to creating an album for Seminal Records. They needed some material soon. After some thought, Paulo realized that his recordings in Japan could become a good material for an album and explored the possibility with Henrique. Iwao agreed and Paulo selected which sounds or excerpt of those sounds could take part in his CD. For each track he developed a method of work, but the general rule was that no major editions and cuts could be made to the sound material, only those required to get rid of some technical problems (like in *Corvos Hamarikiu* where he deleted some milliseconds of a microphone bump), to choose an excerpt considered more musical or that had a special and emotional meaning for him. Another possibility from his made-up rules were to reduce, whenever necessary, the material to a feasible duration for the album. Paulo proposes that the listeners use headphones when listening the album to fully experience the sound space created by the binaural microphones recordings. That suggestion is also applied to the concerts he made with the album material: he provided up to 44 stereo channels through headphones amplifiers during *Cidade Arquipélago's* concerts to create an immersive listening experience and asked the public to bring their own headphone sets (2018)<sup>28</sup>. In practice what we listen to comes from Paulo's head perspective while recording (and listening) the Japan's soundscapes (urban or natural).

It is inevitable to not correlate works like *Cidade Arquipélago* with Luc Ferrari's *musique anecdotique*, but there are differences. The most apparent one is the works unified principles: while Ferrari's music is a narrative time portrait comprising complete *stories* coming from a hyper-realistic world created by means of meticulous montage and editions, Dantas' narrative principles are delicate pictures in which beginnings and endings are abrupt; short stories that suddenly start, make their presence and fade away. It is like opening the window to check outside, contemplate it for a few minutes and then close it to start doing something else. The first time we listen to this album we may wonder where the cuts were made, how Paulo conceived its montage, how he edited the material. No montage, no significant cuts and no special editions; and the unnoticed absence of those common technical approaches to recorded sounds defies our acquired culture in relation to records, as much as the audiovisual works.

Analyzing the album's fourth track *Joya No Kane*, I have convinced myself that some editions were made, and that the intervals between repeated events were composed by Dantas. There are two main sound events in the forefront: a bell hardly and loudly hit, and a man's voice coming out from some kind of public loud-speaker system, piercing the recorded acoustic space in a way that suggested an environment like a subway station. On both sides of the stereo space, in the middle-ground space behind the bell and the public loud speaker, groups of voices speaking an indistinct language to me (Japanese?): some women's, some men's. They function as a granular texture creating a sort of rhythmical bubble which is the responsible for the music's inner movement, separating and filling the gaps between each bell and the public speaker entries in an almost regular time. This time regularity called my

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<sup>27</sup>Exceptions to *Mono.4* and *Prolonged* recorded during the residence.

<sup>28</sup> <https://www.facebook.com/events/2085274988384750/>

attention during the analysis: 13 seconds and 50 milliseconds (13”50) approximately separating the forefront material made of the bell’s hit (Ff\_1) and the voice on the loud-speaker (Ff\_2). Each entry of Ff\_s was intercalated by the middle-ground rhythmic groups of voices (Mg\_s) during approximately 34”. The intercalation time between Ff\_s and Mg\_s fluctuates, for more and for less, from the second minute of the piece to the sixth, and then tends to increase from the beginning intercalating time, alternating between 40 and 44 seconds. This process provokes changes in the listener expectation by means of tension and relaxation during approximately the first six minutes. The second third of the piece releases the tension and points to its (abrupt) end. *Joya No Kane*’s form construction seemed to me to present signs of edition and montage as a compositional strategy.

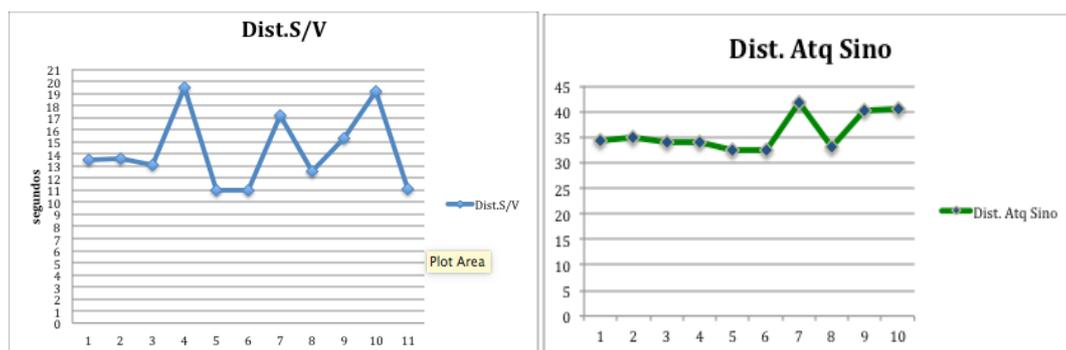


Fig.1 and 2: Distance in seconds between Ff\_1 and Ff\_2 (bell and loud-speaker voice) and overall distance between Ff\_s and Mg\_s, respectively.

Dantas told me during the interview that no edition or montage has been done to this piece neither to the others (with some few exceptions). All events presented in *Joya No Kane* were the result of a continuous recording situation: a Buddhist festivity in Tokyo to celebrate the News Year. In Buddhism there are one hundred and eight bad behaviors, or bad thoughts, like the Catholic seven sins. In the first time of the year the Japanese people have this ritual where one hundred and eight prominent public citizens are invited to spurge those *bad thoughts* by hitting a big bell placed in a public space. One by one they are called on microphone to come up to a stage and perform the ritual in front of the public. People cheer for each person that is to perform the ritual. Dantas chose a ten minutes excerpt from his recording of the ritual; and this became *Joya No Kane*’s track. The space images are related to the positions of the binaural microphones, each one placed in one of his ears, and the people and event positions in relation to his head. Still according to Dantas, probably the almost symmetric intervals I have listened to between Ff\_s and Ff\_s and Mg\_s had to do with the rigid organization of the ritual and to people expectations and joyfulness of each bell hit. The time variations between events was related to the different ages from those performing the ritual: elder people took more time to get to the bell and hit it. For him *Joya No Kane* is the album’s most *musical* piece, and the reason could be related to its time and space organization.

Dantas *procuratividade* can be perceived in the way he scoured the materials he had captured to select those parts which translated his affects and seemed more musical. When I asked him in which way *Cidade Arquipélago* is an *electronic experimental music* work he answered that:

“the process of creation that culminated on this album seemed to be an experimental one from the beginning, since it wasn’t even an album! (...) I gathered [the material] later and made the necessary adjustments for it to become an album: (...) ordering the tracks in a way that I thought it was interesting and, in a way, pleasant. Experimentation, for me, is in the right you have to choose the subjects that are most interesting to you; (...) to find out what [really] interest you. As a professor this is a

central point for me; that's why I quit teaching composition. In a composition course you have to follow its syllabus [decided earlier by the department]. It is not that the professor could not adapt them [in his class], but the students used to come here saying 'I want to write a string quartet, I want to write a symphony'. I then started to ask myself: 'do they really want to compose [those things]?' It was difficult to really know what they would really like to do." (DANTAS:2018:Interview 1:18:37 – 1:21:14)

His suspicions have perhaps to do with the fact that IRCs legitimation over symbolic goods are ingrained in students' minds, and that for them to do something that acquires legitimacy means to adapt the way they think about music and music creation to the traditional field of restricted productions. In this way, Dantas' methods for music creation can be considered a contribution to a continuous process of *conscientization* upon the sound materials and the various ways we can choose to listen to them. Above all it seems to me to be a suggestion on how we can be set free from the traditional and conventional approaches to composition, musical thinking and teaching.

### 4.3 Facies

Bella's album, *Facies*, has two compositions: *Embrulho* and *Salvação*<sup>29</sup>. It is a completely different aesthetic approach if compared to Dantas' *Cidade Arquipélogo* and very difficult to categorize. Bella wrote some disturbing and strong words to describe it<sup>30</sup>: "*blindness, violent death, sickness, accidents, broken limbs, leadership, war, coldness, detachment, perfectionism, earthquakes, pure combative energies, adventure, risk-taking, glamour, fulfillment through charitable works*" (2015). Magno Caliman and Paulo Dantas were responsible for the CD's mix, and Dantas had also mastered it at EMS studio in Stockholm.

*Embrulho* is *Facies*' first track and deals with a prominent granular texture created upon synthetic chords made of sampled sounds from Bella's old electric organ. The main technique is to record the sounds in a cassette tape and then sample the results in a computer to be played once again. Others sampled material were the voices from Delia Derbyshire and Berry Bermange's 1964 work *I'd Like to Believe in God*. The track starting sound is a very reverberated and distant harmonic-noisy attack followed by a woman's voice from the 9:41" Delia and Berry's music saying, "*One has to believe in God*". *Embrulho* was created with an accumulative process.

Bella repeats the harmonic noise followed by the woman's phrase five times before splicing and reversing the voice. The first sequence overlaps the woman's voice, reversed or not, a noisy and medium-low mass in the background, a male voice note around C4, an intermittent attack-resonance sound that seems to come from a piano, and an organ like sound at the end playing a motif of three melodic notes around an E chord (G#-E-F#). The melody is then followed by a high pitch around E flat (5012Hz approximately). The high pitch was the result of a cassette tape malfunction; Bella took advantage of this and sampled it. The second sequence is dominated by the presence of saturated synthetic tonic group mass with wide harmonic content coming from the organ recorded in a cassette tape and then sampled into the computer. Intermittently the high pitch, a noise *breath*, and a tonic variable mass that made a downward glissando intervene. Those accompanying sounds occupy the middle and the background, respectively. From 11:39" to 16:03" the variable mass articulates a slow *trillo* adding more density to an already full spectral occupation, as in *noise* music but softened by

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<sup>29</sup> *Package and Salvation*.

<sup>30</sup> Information text accompanying the downloadable version of the CD.

the minimal and lagging rhythmic structure. This material is thrown left and right in the stereo pan.

The third sequence puts the former material in the foreground with a low granular noisy mass that intervene two times. After that, an even granular and saturated mass makes its entry: five attacks before overthrow the variable mass with a continuous, louder and increased distorted structure. The sequence suddenly stops and the last sound, a male voice saying *I'd like to believe in God* three times over a cassette tape hiss in the background, ends the piece.

*Facies* sounds old, and one of the reasons could be the fact that Bella worked upon material recorded in a cassette tape before moving it to a digital media. The raw materials she worked upon, those old tape techniques, such as the above-mentioned sound in reverse and the saturation, can also help to create the feeling of aging to both of her pieces in this album. In a way, I can compare it to Michel Chion's sounds in works like *Tu*, where *musique concrète* magnetic tapes vestiges can be found. Different from the French composer, Bella's narrativity is of another kind. According to Bella, *Facies*' narrative is a visual one. She made a list of all images coming to her mind and started playing according to it. Her experimental approach towards *Embrulho* can be traced from the sonorities coming from a cassette tape, mixing old sampled materials collected somewhere else with her own recordings and its failures (the cassette malfunction, for instance). The way she approached the accumulative process, the choice for an out-of-date sonority (compared with nowadays digital production in electroacoustic music and electronica) and the use of extreme sound saturation are also indications of her experimental practices in a *procuratividade* sense. *Facies* is to be performed in stereo public address systems.

#### 4.4 Coleções Digitais

Henrique Iwao master thesis was about sound collage. This is exactly what *Coleções Digitais* is about: an album based on sound collage of which the production started in 2009 until its release in 2017. Iwao idea towards this album was to create tracks using sampled materials from famous pop and contemporary music CDs focusing in words, phrases or sounds that were repeated in many of its tracks. For example: Iwao collected every *1 2 3 4* that the Ramones' singer counts at the beginning of each of the punk group songs. Then he made a collage of those *1 2 3 4s* from the songs Ramones recorded in all their albums. He did the same thing to each *Baby* sung by Britney Spears he could find in her numerous albums; also to all sirens sounds Varèse used in his compositions. This was a laborious cataloging work, that took Iwao a long time to accomplish. After collecting all samples for each one of his pieces, he created some general rules for the album, adapting them for each track. Some of those rules were to limit the technical approach allowing only cutting, crossfading and adjusting sound volume. No equalization, for instance, was allowed; another rule was to work in chronological order: each *1 2 3 4s* from Ramones were ordered chronologically, by the date of the recordings, from their first album to the last. The same rules were supposed to be applied to each of the album's tracks.

*Coleções Digitais* is an odd album but created with very formalistic sense that Iwao considered necessary for his work: "(...) I wanted to be able to strive for the perfection of crystal, to get closer to something like another *Das Wohltemperiert Klavier*" wrote him in the CD's booklet (2017). That statement influenced the way I have approached the analysis of *1 2 3 4*.

There were some different plans in which *1 2 3 4* could be analyzed: one of them was based on the resulting harmony progression that according to Iwao was a fortuitous combination due

to the grouping of different sampled excerpts from Ramones songs. The harmonic progression called my attention specially because I was driven by the composer's statement quoted above. In this way, fortuitous or not, it is possible to perceive the prevalence of a harmonic progression in each of the guitar attacks: the tonal content is in E major key. The progressions oscillate between I-VII-V and I-VI-IV phrases. An almost formal transition could be perceived in 1:12" with the V/V chord. From 1:20" a transposition to the harmonic field of C occurred, coming back to E in 1:50".

This kind of basic analytical approach for the structural surface of an electronic music is not common, especially for music created with methods based on collage procedures but in this case it helped me in searching for the strategies that could have been used for the sequencing the samples. The next question was related to the sound samples themselves: variations of the same counting sequence recorded in different moments and in different songs. This results in variations in space *perspectives*. Iwao chose each sample in chronological order, and by doing this he captured and ordered them with each one's *composed space*. That created a peculiar space relation among sound events in 1 2 3 4 in a different way if compared to *classic electroacoustic music* strategies. Each entry brings its own space information creating a *space profile* in a continuous flux. Another aspect, in comparison with Schaeffer's procedures, is related to the technique of *reduced listening (écoute réduite)*: if reduced listening method was to repeat sound in a loop to capture and perceive its essence and how do they behave in time, abstracting them from their source, Iwao sample to sample repetition enhanced the presence of those sounds origins, emphasizing them as signs of *cultural semantics*. When I asked him about that, he reinforced that his intentions were more formalistic than semantic. For him it was as if he had "(...) discovered a kind of fixed form which is relevant nowadays" (2018)<sup>31</sup>. The semantic aspect of what he was doing, as he pointed out, was a kind of "bonus" that had to do with the "cultural displacement" he was dealing with (*Ibid, idem*).

Iwao's interview showed me the role of the analyst as an interpreter of a musical work, as a listener in Cage's sense, and doing so, experiencing music in its own way. Even with the knowledge that supports each analysis applied on the *neutral level*, the *esthetic action* performed by the analyst directs his or her conclusions about the piece. The notion of the *poietics* strategies and processes can both reinforce ideas concerning the analyst views or completely contradict them. The other alternative is that *poietics*, when it can be accessed by the analyst, could provoke changes to his or her views about the musical work. That was the case for me not only regarding 1 2 3 4 but to all the albums presented here.

#### 4.5 Quasicrystal

Sanannda Acacia's *Quasicrystal* is the album that has the most evident root in *classical electroacoustic* works, such as Henry's Continuo-Capriccio and Caesar's *Arte dos Sons*, especially in its first track *Curare*, due to its harmonic content, granular and roughness textures, the way space was composed, and reverberation was used. Different from the Schaeffer's typology, Acácia categorizes her sounds from the thematic content she intends to explore in each album. As she said during her interview, she collected sounds and put them into many folders in her computer; each of those folders was separated with a thematic content in mind. When time comes to start creating a new album, she listens to the sounds corresponding to the theme she chooses and starts to plan where those sounds go in each piece. After selecting the sounds, she creates a project in Reaper digital audio workstation not just to organize her material but to mix it. The processes of mixing and composing are the

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<sup>31</sup> In about 23:17" of his interview.

same: she composes while mixing, and mixes while composing. For her, each piece not only has to have a structural unity, but the whole album should be created as a complete narrative process.

When listening to *Quasicrystal I* realized that its narrativity was created as if inviting us to read a book: each track functions as a book's chapter with its own characters, landscapes, scenarios, behaviors and themes, instead of the movements or sections so common music organization. She claims that *Quasicrystal*'s narrative was based upon Mark Fisher's concept of *haunthology*:

“(...) [I]n those tracks what I am trying to present is a kind of haunt. Haunted thematics in the sense of memory, nostalgia. It is that thing that recording is about as it takes you to another moment. It is the thing about materialism; the materials processes of the album; (...) the roughness of sound, the noise. It is what I call fictional density; to create a verb; something that asserts...” (2018<sup>32</sup>)

Acácia is influenced by a large scope of musical production: from punk and pop to electroacoustic, noise and drone music. She considers *Quasicrystal* as flirting in a way with pop music, besides the fact that it does not sound like that at all. According to her, the track that most resembles or dialogs with pop music is the fifth one: *Transformative*. *Transformative* was directly recorded, and she ironically considered it the album's *hit* because of its melodic and harmonic content. In it, over a background pedal in a D minor, the granular textures already presented in other tracks travels in foreground with intervening filtered harmonic structures made of smooth tonic material and a *windy* elongated sound. *Transformative*, as some of the other tracks, has a continuous minimal flow with overlapping events that gradually accumulate and disappear. The granular texture, a medium-low to high harmonic frequency range, entry at the beginning, followed by a bell-like sound (an octave in C) and the arpeggio in D minor (both probably created from the same sound source). The third material, the *windy* sound, enters at the 7<sup>th</sup> second, approximately; a *weeping guitar-like sound* occupies, from 24 seconds onward, the high spectrum space in the middle-ground. A version of the *windy* sound is transposed and superposed to the guitar sound, both in harmonic relation with the arpeggio. The irregularity of each sound material entry has to do with the *Quasicrystal*, as explained by Acácia: a crystal that came from outer-space and fell on Earth. It has no periodical pattern in its composition, but at the same time it is periodic. The sound events than appears and disappear irregularly over the pedal.

At the same time, it is noticeable what the composers means by *Transformative* been the most pop of the album's tracks: not only its tonal content, but also the association with music by composers such as Brian Eno and even, in a way, to Holly Herndon's. Herndon's composition *Breath from Movement* album (2012) is a hybrid of electroacoustic music approaches and electronica, with its breath sounds (inhale sounds actually), granular multiplexes and tonal content. Herndon is known exactly by her ability to circulate in both fields of production, the popular and the restricted one, with the same excellency. I would say that Acácia, as Herndon, deconstructs the patterns in both fields and use reassembled methods that arise in a different genre of electronic or electroacoustic music. In a different way, the relations that Robert Normandeau traces from metrical rhythmic structures and asymmetrical ones in his electroacoustic music *Le Renard et la Rose* (1995) could also be viewed as a hybrid. The difference, and at the same time the similarity between those productions, could rest on their prevalence of cultural connections: Acácia in the experimental post-noise/punk culture, Herndon's in electronica, and Normadeau in electroacoustic music.

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<sup>32</sup>Sanannda Acácia's interview: in 38:38”.

Acácia's multiple influences is noticeable in her work, and part of its beauty is the way she manages to take advantage of them to develop her compositional activity. The idea of a thematic typology to search, create and categorize sound objects is another path to run into what was, for Schaeffer, the basis for his experimental approach: material and method.

## 5. Conclusion

After the discussion presented in this article there are some conclusions I could make. First, the path taken by Schaeffer for his *fundamental research* in *Musique Concrète* put the material and the method as experimental practices for composition. It promised, in a way, a subversive approach to music creation detached from the canonical field of restricted production. If associated with the *liberating education* ideas and methods, it could have increased the possibilities to face the challenges ahead, especially after institutionalized as a discipline attached to the Conservatoire. As his research tended to a theoretical response to the *avant-garde* composers and thinkers of contemporary music, or as to have had his music and ideas legitimized as part of the *serious music* tradition by modeling its boundaries to fit the *territory* scope of the IRCs, it started a perilous process that could led its potency out of its subversive substance. The *musique concrète* experience, with its subversive deterritorialization tendencies (DELEUZE, GUATTARI, 1980) begun to flirt with the accepted art music and high culture instances of reproduction and consecration. Supposing Schaeffer's first experiments have reflected the subversive tendency of his activities, he and his project alone could not have accomplished a task of that magnitude; change its direction, change his path, or even adapt the project to more acceptable IRCs demands was expected historical consequence. To understand the historical influences in limiting the artistic (among others) rupture and transformations, Leon Trotsky Marxist analysis is useful. In his article, published as homage but also as literary criticism concerning the role of Mayakovsky's works during the first years of the Russian revolution, Trotsky wrote that "he was, above all, a poet, an artist that walked away from the old world without breaking with it" (1969/1930:222).

"Mayakovsky was not only a *singer*, but a victim of a time of crisis, that preparing the elements of a new culture with a strength never felt before, passed more slowly than it would be needed to assure the harmonious evolution of a poet, of a generation of poets, who dedicated themselves to the revolution." (*Ibid, idem*)

In short, what I assume Trotsky meant is that the rise of a new art form, or any other social-cultural or economic product, is intimately connected to and delimited by the historical moment. The process, to be a permanent one, should be continuously developed, increased, or even radicalized, as in Freire's concept of *conscientization*.

As a second conclusion, it is interesting to verify that classical electroacoustic music gradually became part of a field of restricted production, and that its apogee and decline coincided with the development and democratization of the digital technology, specially by the middle of the 1990's. It is no coincidence that Jean Piché's statement underline that precise historical moment as the one in which classical electroacoustic music had its twilight; nor it is coincidence that Rodolfo Caesar's critique to institutionalized electroacoustic music appeared after the digital revolution of that time. I could point out that in the light of the Seminal Records works mentioned above, among many others, even not considering them as electroacoustic music works *per se*, albums (experiences) like those could be viewed as glimpses of experimental approaches to be examined as renewal possibilities to the electroacoustic music methods, techniques and even its materials. Works like Holly Herndon's *Breath* or Amon Tobin's *Dark Jovian* (2015), with its approach in dealing with

materials in a musical production perspective, are also examples of how to explore and refresh the means to work upon sound materials, space, and techniques in electroacoustic music.

To glimpse or even accomplish tasks like that, it is also important to rethink nowadays educational and research roles (if not all the academic premises as a whole) in electroacoustic music composition classes at universities and research centers. Daily artistic and social-cultural processes that are taking places today should become an intrinsic part for teaching, for introducing materials and subjects to be discussed in classes of composition, associated with the historical background but without any hierarchical privilege to them; the most recent topics in respect to the many artistic, political, economic, philosophical, sociological and theoretical fields could be brought by professors and students as a means to renew electroacoustic music learning and creation. The role of tradition should not be put above all daily life creative ebullition, but instead, be treated as of equal importance, at the same level, being used for comparisons even to produce hybrid works. New practices should renew old theories while these should feed back as new practices.

In those hypothetical, ideal, or even utopian world imagined above, there is no place for statements concerning the death of an old artistic practice, like Piché's, especially when driven by conservative and nostalgic thoughts and feelings, but the need of urgent transformation. Not that the death of an artistic genre or style is considered to be a problem in itself -this is a historical event, and it is historical determined; the main aspect I am discussing in those lines is the subversive aspect of an experimental artistic approach that put paradigms in check, not for the sake of subversion itself but as a means to continuously change the ways in which we approach composition, teaching and life. That is what an *experimental electroacoustic music* could be: one of the many social forms that could challenge the instances of reproduction and consecration in its multiple occurrences. Or even better: electroacoustic music, since Schaeffer, started a process of rupture from the Western Music paradigms and this should not be neglected in music and sound academic and non-academic studies; this is the essence of experimental artistic practice.

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