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# Tactility, Traces and Codes: Reassessing timbre in electronic media

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**This article starts by arguing that in diverse approaches to electronically produced sound in music of recent times a shift in focus has occurred, from the creation of novel sounds to the manipulation of sound materials inherent in a culture of electric and electronic devices of sound production.**

**Within these practices, the use of lo-fi devices, circuit-bending, cracked electronics and a resurfacing of older technologies is coupled with digital technology in a process which emphasises the devices characteristic modes of sound production and artefacts. Electronic sound becomes regarded as embedded on a reservoir of qualities, memories and registers of technologies that inhabit our sound environment.**

**From this starting point our apprehension of technologically produced sound is reassessed, constituted as the crossing of particular conditions of production and reception, cultural traces and codes inherent in the practices and characteristics of media.**

**This perspective lays the ground for a compositional approach that exposes and problematises the interaction of these multiple conditions.**

## 1. INTRODUCTION

Within our age of mass media, the previously accepted distinction between a *musical* sound and a *non-musical* one has become blurred. Beyond avant-garde endeavours into the liberation of sound in musical practice throughout the twentieth century, it is nowadays a reality that almost any kind of sound can be present in the discourse of widespread media. This stems from the expansion of broadcasting situations which reproduce sound from a myriad of sources, and get processed and multiplied in a myriad of forms, as from the naturalisation in the use of synthesis, signal processing and sound technologies in popular musics and audio culture in general. This yields the codification involved in our process of sound apprehension more complex and intricate, and furthermore transforms the nature of our relationship with it.

Many characteristics specific to the technologies of sound production populate our widespread aural culture. Diverse timbral imprints have become a natural component of our habitual listening environment, from the distortions of defective connections in

analogue devices or obsolete loudspeakers in public announcement systems, to the result of sound processing stereotypes ranging from frequency modulation to granular techniques as used in public broadcasting and mass advertising campaigns. These characteristics do not belong any longer to a detached, foreign, sound world, but we decode these processes, implied spaces, qualities and imprints of technology as signifying aspects within this realm, as their uses have become attached to specific styles, genres, places and discourses that constitute the practices of media.

The range of references at play in the reception of technologically produced sound includes the technical characteristics of the equipment used to produce the sound, the spatial imprint defined by a source location in the case of a recording or implied by a synthesis procedure, the spatial imprint of the reproduction device (diffusion characteristics of a loudspeaker) and the set of aesthetical decisions involved in the process of production (for instance a kind of compression used, a recording strategy or the use of a particular synthesis tool in a specific genre, time or social context), among others. Inhabiting a reality of technical media, sound involves links to uses within a wide network of practices involving electronic manipulations.

We relate to technologically produced sound involving our own threads of references and embodied patterns, our previous experiences and appraisals. As much as we could have related to a certain chord progression pertaining to a music style convention in the past, we tie timbral qualities to certain uses and aesthetic implications in the present. Experience of the timbral has changed as the amount of traces and codification involved in our experience of sound has widened since the advent of electronic media.

Various genres and types of electronic sound creation since the early 1990s have developed an emphasis on the re-use of technologies from the past and the exposition of material qualities characteristic of the devices that form our habitual sound media practices. References to imprints of the history of technology and the raw components of historic electronic devices surface in these cases in a play of memories that interacts with a widespread immersion

in digital media. These practices and their manipulation of existing registers have brought forward a shift in the value of electronic sound in its relationship to the listener.

## 2. TACTILITY

Since the early 1990s the tactile has become a prominent category of sound description in many practices of sound creation involving electronics. This traverses identifiable genres such as glitch and microsound, as well as the practice of free improvised music with electroacoustic devices, areas of sound art and beyond.

Examples of these practices range from the ‘acoustic microscopy’ (Gottstein 2011: 86) of many practitioners of the European and Japanese electroacoustic improvisation scene of the 1990s–2000s, involving players such as Keith Rowe, Mark Wastell, Jérôme Noetinger or the Phosphor Ensemble among countless others, works such as Martin Tétreault and Kevin Drumm’s album *Particles and Smears* (Drumm and Tétreault 2000) or artists grouped around the 12k label such as Richard Chartier, just to name a few.

The reference to the tactile appears coupled with an emphasis on the materiality of sound. It unveils along particular sound strategies which, rather than highlighting the capacity to build up sound *figures*, clearly identifiable morphological units, provokes a *suspension* of gestural movement aimed at enhancing the sound’s isolated and inherent perceptual qualities.

A useful parallel to this emphasis can be drawn with Laura Marks’ assessment of the tactile as a way of experiencing the visual image. She explains this circumstance as appearing in ‘a wealth of examples of this look that moves on the surface plane of the screen for some time *before the viewer realizes what she or he is beholding*’ (Marks 2000: 162–3).

Jennifer Barker further elaborates on this tactile aspect of the visual as ‘a way of looking that tends to move over the surface of its object rather than to plunge into illusionistic depth’ (Barker 2009: 38). The tactile arises in these references when the continuity of the image on the screen as the representation of a part of a whole that extends beyond the frame is suspended, and thus ‘emphasizes texture and materiality – the grain of video imagery, for example – and encourages the viewer’s gaze to move horizontally over the image’ (Barker 2009: 38).

When we see one object at a distance behind another, what we are seeing is in a very real sense our own body’s potential ... to touch them in succession. ... We are using our eyes as proprioceptors and feelers. Seeing at a distance is a virtual proximity. (Massumi 1998: 21)

‘touching’ is very often an indirect mechanical disturbance of the skin mediated by an appendage, not a direct

impression of the skin by an object, ... when a man touches something with a stick he *feels* it at the end of the stick, not in the hand. (Gibson 1966: 100)

The tactile is unveiled here not as a particular sense but rather as a *mode* that arises on a particular circumstance of seeing. Akin to this visual example, the tactile arises in these sound practices out of a *suspension* of a gesturally driven discourse. This is achieved through the use of loops, drones, static surfaces, *laminal* strategies or fragmentation of previously constructed material. A shift is produced, from the constitution of sound *figures* towards a focus into a ‘near-physical shifting of ... perceptions’ (Siepman 2010: 176).

The tactile is enhanced in these practices, emerging on the isolation from previously bred functionalities, as a mode of listening that enhances the constitution of the sensitive experience of sound, the involvement of perceptual and bodily agencies at play in its apprehension.

### 2.1. Technological consciousness

One significant aspect of this tactile-material focus is that it has developed through the coupling of widely distinct sound technologies. Even though some recent technical developments have been intrinsic to their development, much of the essence of these practices has arisen in the pairing of tools like circuit-bending, lo-fi electronics (from the development of original devices up to the recycling of home-consumer devices), contact microphones (applied to everyday objects, surfaces or instruments), loudspeakers used as physical sources of vibration, hacking of historical sound reproducer devices and vintage analogue equipment, all paired with state-of-the-art digital signal processing.

The coupling of these diverse technologies has bred an aesthetic built on foregrounding the distinctive timbral peculiarities of each device.

It is reasonable to suggest that a highly expanded use of digital technology has enabled an enhanced look on the diversity of tools and devices of the history of the past century. The massive amount of information available and the possibility of agglomerating divergent registers of previous technologies and practices in abrupt and seamless juxtapositions through digital manipulation have certainly helped this perspective to emerge, revealing a newly acquired consciousness of technological history. Within this common surface of multiple technological traces the qualities of each sound production device constitute themselves into identifying marks.

Technologies impose physical characteristics on sound that populate our baggage of media practices. These not only generate particular material results but define particular foci and ways of organising our

listening habits. From an example pointed out by Seth Kim-Cohen, Muddy Waters' 1948 recording of 'I feel like going home', in its pioneering recording procedure, sets a precedent that defined a great deal of our hearing conditions from then on.

[for the first time] an individual microphone is dedicated to each of the instruments: [voice, bass, guitar] or, more accurately, the guitar amplifier. The result is a new embodiment of sonic space. ... The range of the signification that contributes to such perception is significantly expanded by Waters' amplifier and additional microphones. The amplifier conveys the buzz of the strings with the same fidelity as the major chord. (Kim-Cohen 2009: 24–5)

This example not only defines a particular focus and a spatiality that will impact on the language of sound expression from then on, but it raises material aspects of sounds, like the buzz of the strings as rendered through the microphone, into what later will become an affectively significant material of our sound culture. These buzzes, hisses and the material qualities inherent in sound creation within media technology proliferate in experimental music practices concerned with lo-fi devices and recycling of previous technologies.

The tactile focus that traverses them has fostered an emphasis on the variety of perceptual and physical determinants that populate our listening experiences of sound in media.

The impact of technology in building the sensitive ground of a world of sound expression has become inherent to diverse practices. Furthermore, the consciousness of these registers and their affective imprint has emerged not only in the previously mentioned genres but also as a protagonist in the field of popular music. A well-known example is the work of British group Portishead, that recorded primary takes in vinyl records to later reproduce them as a component of the musical material later to be re-recorded, highlighting the particular artefacts and timbral qualities of this technology (Portishead 1994) or an album such as the multi-artist remix of David Sylvian's *Blemish, The Good Son vs. the Only Daughter* (Sylvian 2004), in which segments exposing clearly diverse qualities of recording and sound processing are fragmented and juxtaposed, highlighting their particular sensitive characteristics.

### 3. TRACES

Listening to technologically produced sound throughout more than half a century of mass media culture has introduced us to timbre individuations which have arisen from techniques or practices rather than from particular physical sources. Specific results of processing tools such as ring modulated or

granulated sounds have become identifiable timbres by virtue of the regularisation of its common use, its reiterated appropriation and spread, without the need of being attached to a physical or imagined source of sound production.

Timbre individuation has always implied a set of circumstances that determine our apprehension, comprehending a string of previous records and specific contextual conditions. Our experience of a stone (visual, tactile, kinaesthetic) infuses our experience of a certain sound as the sound of a stone. It would not exist without our previous experience of it. The rendering of a timbre as *stone-like* refers to a multiple set of sound qualities that we have experienced as emanating from some of its attributes; it implies spectral and time-domain characteristics, a complex pattern of behaviours that coalesce into one *timbre* by way of our own record. Without this record, there would be no *stone* timbre. Several categories are agglomerated within one individuation event.

Within the sphere of technical media, this integration of characteristics happens through uses and the circulation of sound materials and practices. In the electronic sound realm the traditional tie to the physical source gets gradually dissolved as a main axis of coalescence. We identify the result of a particular combinatory method, a particular delay, without referring them to a specific cause, but to a specific use.

The inception of the qualities of these processes in repeated instances and its attribution to specific contexts in the realm of media engender a particular memory imprint that becomes referred in subsequent repetitions and transformations. This can be read also through Serge Lacasse's *transphonography* (Lacasse 2008: 12), a concept whose aim is to expose the constitution of a sphere of internal referentialities as a fundamental aspect of recorded popular music, which, as he says, is prominently populated by a 'multitude of strategies of quotations, derivations and transformations' (Lacasse 2008: 11). Timbre in media can be said to develop as a substratum of sound components that get consolidated, referred and transformed within this particular sphere.

An example of this process is the naturalisation of a 'granulated' piano sound as we take into account the popularisation in the use of granulation and shuffling techniques applied to acoustic instruments in mass audio practices. The circulation of these practices transforms the pattern of our apprehension.

A paradigm of sound apprehension grounded on the model of physical causes states that 'if an apparently "struck" object resonates for a duration beyond normal physical expectation, such that the resonance appears to take on its own continuous energy profile, we are likely to contend that another

energy source has supplanted the attack or, where a recognisably vocal or known instrumental attack develops into a sustained spectrum that does not equate with the source we predicted from the transient, the exact nature of the source will remain ambiguous' (Young 1996: 76).

Although this description gives a precise account of an aspect of our apprehension process, it doesn't account on how our patterns of comprehension are shaped and altered through a process of cultural codification.

In the case being dealt with here, the granulated piano sound has become, through its repeated use, a common *aural unit* in popular musics. This yields manipulations such as the possible extension of a resonance being apprehended *not* as an alien alteration, but rather as a variation of this generally accepted unit, resulting on a play of references within the practices of media.

Another very basic example of an individuation defined by practice is the widespread use of reverberation tools, which renders the result of its process as a reference to uses and styles even more, in some cases, than yielding a spatial quality to a sound *object*. We can *read* the particular echo of a sound object, but, having been exposed and trained in the use of reverberation process in mass culture, we are prone to apprehend the echo as an individual event in itself.

New uses constitute new agglomerations, as certain behaviours become grouped or segregated depending on them, as in the case of the granulated piano or the agglomeration of the digital *cuts* characteristic of *glitch*.

The use of *glitch* or the quintessential digital *cuts* became part of a regularly used practice, as could be portrayed by the granulated, *glitch*-like drum sequence on the initial segment of the song '15 Step' by pop-rock group Radiohead (Radiohead 2007). This example brings up the fact that apprehension of that sound information has coalesced into one particular timbre, it is experienced as one particular type, without the need of the layperson to understand or recognise the technical procedure that gave rise to it.

It is the practice that defines the segregation of information and its integration into one particular unit. Timbre becomes understood as a mutable circumstance, its apprehension in a state of flux. Without the ascription to fixed sources, we relate to a conjugation of traces.

### 3.1. Traces and media

Technical imprints become landmarks, which become carriers of affective and meaningful information. As an example, particular loudspeakers impart specific spatial diffusion qualities, certain frequency spectrum

characteristics or amplitude behaviour, regardless of the source of audio information that is supposed to be coming *through* them. The conditions they impose constitute themselves as a signifier of a particular circumstance.

These do not limit themselves to the shortcomings of an obsolete or deficient technology. The rendering of a voice through an old microphone or old set of loudspeakers will probably produce a particularly recognisable result identifiable mainly by its reduced frequency range. On the other hand, a 'digital' rendition of a voice we might be accustomed to today in modern broadcasting situations frequently bears other traces peculiar to its technical process. Through the combination of close miking and particular amplification procedures, it carries high-frequency information we wouldn't normally hear at conventional distance due to filtering of this information through air, thus creating a particular quality we learn to identify with a specific use and context.

Particular technologies produce particular compounds of sensitive information. As in the prototypical colours and blurred edges of a Polaroid picture in the visual domain, a particular frequency spectrum or transient response can be linked to a specific microphone technology within the sound domain.

Technologies imply genealogies, embed uses and values. As Jennifer Barker elaborates on the domain of synthesised images in *The Tactile Eye*:

[animation children movie] *Toy Story* recalls sensual memories of a particularly urban, consumer culture. Its texture is completely manufactured and processed, and even if we didn't know that this film was the first feature in history to consist entirely of computer-generated imagery, we would feel it. This film's skin has no grain to it, no roughness, no messiness ... The tactile memories this film evokes are historically and culturally specific: through its setting is contemporary, it recalls the America of the 1950s, the era of Formica, Frigidaire and the Radio-Flyer Wagon, of smooth textures and bold colours designed to soothe and brighten the American landscape after a rough and dismal few years at war. (Barker 2009: 45)

Techniques impose marks that become themselves a source of variation. The particular qualities of the medium define the sensitive object within a shifting multiplicity of references. From this perspective, timbre becomes a singular event that agglomerates the physical reality, the reading conditions and the medium's symbolic and technical frames.

The electronic music practices referred to in the beginning of the article, manipulating the materials of widespread technology, involve these imprints. Rather than shaping timbre as the malleable property of a substance susceptible of being organised in figures, they operate upon the string of traces embedded in its apprehension.



#### 4. CODES

Everything that gets onto the stage tends to become saturated by meanings superadded to the empirical function of that thing. (Lotman, quoted by Suvin 1987: 330)

Every artistic instance builds its own particular *frame*, which embeds into its signs meanings internal to its practice. These comprise physical conditions as well as cultural habits. The particular codes at play in a specific discipline constitute the impact of its components in a play of relationships with the boundaries established by the medium.

In the field of popular music since the explosion of widespread audio and media, the contrast of timbral aspects of sound linked to diverse technologies of processing and recording have become essential in defining aesthetics and new forms of expression. Particular recording or processing techniques that render variations in, for example, the quality of the sound of a snare drum or a distorted guitar, have turned themselves into singular signifiers of the musical practice, constituting specific affections and implications. Timbre has come to embed a fundamental instance of codification within popular uses of technology in sound, whether it comprehends a spatial quality of the recording studio or a particular chain of processes applied to an originary sound.

The emphasis on the notion of the *sound* of an album as a primary concern of rock aesthetics is an aspect of this, as has been exposed by the likes of Brian Eno in his essay 'The studio as compositional tool' (Eno 1979), among others.

As underlined by composer Helmut Lachenmann in his own construal of the concept of *aura* as 'each listener's particular familiarity with a sound' (Lachenmann 1980: 267), our experience of timbre embeds a history of uses. He exemplifies this through the basic example of the sound of tubular bells and their trace of religious uses. Nevertheless, this familiarity is described as a mutable condition, one which gets resignified along diverse instances and ascriptions of the same sound in diverse historical circumstances.

The main point along this path is that timbre in the realm of electronic sound purveys a new, unprecedented dimension of codifications and recodifications. Given the expansion in the amount of referentialities electronic sound involves, coupled to its proliferation in media uses, the continual processes of re-mediations and the inherent mutability of these uses and distribution of materials in media, the codification of aspects of electronic sound embraces a much wider and complex reality than that of conventionally produced acoustic sound.

#### 4.1. Media genealogies

Within media circulation, particular materials acquire determinate significance beyond the intentions involved at the circumstance of its creation. An example of this is the characteristic hiss (white noise) of primitive recording technologies which, as Stan Link points out, acquires a particular status as its presence becomes the *proof of a testimony*: 'The types of noises born with recording were both the difference and connection between an original and its reproduction' (Link 2001: 34). This sound material became, through this involuntary historical circumstance and its subsequent uses and implications, an affectively or meaningfully charged signal. The artefacts associated with electricity, such as the hum of a guitar amplifier, are another example of the inclusion of these *a priori marginal* materials in our aural consciousness.

Our sensibility towards certain qualities and gestures is populated by aspects arisen from particular characteristics of the technical devices. Kittler narrates the experience of pioneers of radio plays confronted with the fact that, within their technological possibilities,

Cutting and splicing would have produced nothing but crackling noises, which lead them to devise a genuinely 'radio-specific' means of expression, which happened through their study of the parallel medium of silent films, and concluded that only the fade-out, not the cut, was a possible model. (Kittler 1999: 118)

He goes on to quote a document from 1928 by Bischoff, which stated that:

the man working the amplifier ... is in charge of a function similar to that of the camera man. He fades in and out ... by slowly turning down the condenser at the amplifier, he lets the scene ... fade into the background. (Kittler 1999: 118)

The interesting thing about this text is that it situates the birth of a practice many decades later coded in a particular way within media sound, in a specific moment in history and tied to a specific technical problem. The *knob* sensibility of the *fade* became an integral part of our sound culture, through which we decode certain types of increases in dynamics, in the same way that gestural imprints inherent in the physical properties of traditional instruments became part of the meaningful reservoir of Western musical expression.

Particular uses constitute the fabric of media. Embedded qualities, implications and codifications become as significant as the figure in determining the value of a sound, much like in a silkscreen stamp, where the mark of its texture, particular edges, design, bring forward significations embedded in it that go beyond what could be abstracted as its particular *figure*. Every aspect of its production, where it involves a step in the chain of production or

a feature of a device involved, defines a quality that can be signified in a fluctuating sociohistorical process.

As stated before, these technical procedures not only constitute new materials, but define distributions and organisations of the sensitive, establish a certain aspect as foreground or background and join together or segregate vectors of variation that constitute particular timbres.

Within this frame, we apprehend *electronic sound* as *media sound*, as its technical characteristics populate the uses of media, and vice versa, our apprehension of it is modulated by practices integrated in our media sound vocabulary.

Not conditioned a priori by a restricted semiotic order, media asks from us a continuous procedure of re-decodification. 'Only the phonograph can record all the noise produced by the larynx prior to any semiotic order and linguistic meaning' (Kittler 1999: 16) means that technologically produced sound, the range of *any possible sound*, not only implies a virtually infinite expansion of the variety of sound material, but transforms the practice of its decodification.

When exposed to the recording of the sound of a train in a piece by Pierre Schaeffer, one is exposed not only to a purely morphological reading of the train sound, nor only to the possible reference of the train to an actual object of physical reality. One is hearing a recorded train in a particular context of hearing, be it a concert hall or a private space, which will impose on the listening situation a certain significance and a certain set of codes at play. It implies the history of hearing to recorded sound, it draws attention to the ways and context in which one has heard recorded trains, how a particular syntax affects the way one understands it, how the particular technological characteristics of Schaeffer's devices determined the sound one is hearing and affect its impression.

## 5. COMPOSING SOUND – COMPOSING LISTENING

Diverse electronic music practices that have developed since the last decades of the twentieth century have operated on materials that bear traces of shared media procedures. This thread not only has developed within genres concerned with pure electronic sound production but has also traversed other, more hybrid practices. Within the realm of improvised music the use of artefacts of recycled technology became a strong current, as exemplified in the practice of Japanese improvisers such as Sachiko M and her use of pure sine waves or Otomo Yoshihide's integration of the electric guitar, low-fi circuits and interference, and preparation of turntables. The rediscovery and appropriation of used and past technologies traversed a generation. Proof of the reach of this thrust might

be the 2012 edition of the traditional contemporary music festival Donaueschinger Musiktage, which featured a diversity of composers focusing on the coupling of instruments with portable electronic devices, and stated publicly on its website that one of the focuses of this edition was the use of 'simple electronic instruments', while also acknowledging within the same text the relevance of today's 'electrified, digitalized world'.

This group of practices portrays the inception of sound technology in our habitual registers of listening. Through their use of technology, they bring to the fore our interaction with a compound of understandings and affective schemes merged in our habitual experience of sound.

The particular shift in focus implies dealing with the realm of technologically produced sound as an integral component of our own practices of listening. The value of sound arises on the interrelatedness with a surface of multiple references inscribed in our aural memory. Sound becomes an instance of hearing, where the conditions defined by the medium become the actual subject matter of the operation on sound technology.

From this perspective a certain strategy of sound organisation can be proposed which – reconsidering timbre as a crossing of multiple threads including tactile imprints, traces of uses and processes of codification – defines its axis as the problematisation of the components of this medial-codification process. This proposal diverges from a figural logic of sound organisation.

### 5.1. Towards a different axis of sound organisation

Figural logic can be defined as a paradigm of sound organisation grounded in the articulation of units within a detached musical space. The assumption of this musical space is to be found, interestingly in its simultaneous apparent disparity, in both Schaeffer's and Boulez's historical claims around the use of *concrete* material. Schaeffer's reduced listening asks for a quite *musical* (absolute, abstracted) experience of concrete sounds (Chion 1983: 32). Boulez's claim argues that concrete sounds are not malleable enough as they are not sufficiently detached from real cues to operate on them as an abstract, malleable rough matter (Boulez 1966: 290). For both there was a line to draw that separated the musical from the non-musical, even though the line was drawn at different points. A similar point has been made by composer and sound artist Dugal McKinnon (McKinnon 2010).

This line defines the limit of the *malleable*, where materials are *coded* as musical, and as such remain within the absolute dimensional space of music. Even while they could refer, as a second instance, to external associations, it is their isolated figural quality that gives them a value in sound *discourse*.

Schaeffer's gestural/spectromorphological project aims at defining timbral invariants through rendering any electronic timbre describable as a concretisation of particular morphological models, constructing a taxonomy of possible sound shapes. This taxonomy invites a possible translation of sound into an organisation of figure types. Within this scheme any material can be accounted as musical as soon as its morphology can be read and is therefore conceived as a *transposable* object. This transposability fulfils the need for a neutral, homogenous space which sustains the ground of music's malleable matter.

This perspective of sound organised in figures traverses the history of the tonal tradition. It consolidated within the model of autonomous music initiated in the renaissance and grounded on the model of rhetoric, building up the space of articulated sound units within a fictive discourse. Its rationale implied an image of a homogeneous conception of musical space: 'the linear perspective in Buontalenti's design unifies the musical cosmos by depositing it as an object in a rationalised, geometrical space. The eternal essence of music is slotted into what Martin Jay calls an "eternal container of objective processes"' (Chua 1999: 45).

The translation of this figural logic to a non-tonal practice in the twentieth century can be read through the concept of *espace sonore* (Bayer 1981) as used in post-serialist analysis. Hereby music structured without harmonic tonal relationships is understood as founded on relationships of tension–release articulated through processes of agglomeration–dispersion within a homogeneous grid. As stated before, the ground is set on defining a detached malleable space populated by morphological units.

Approaches to the organisation and assessment of timbre can also be articulated through a figural logic when they are grounded on translating the experience of timbre into a grid space that yields a model of malleable trajectories in specific dimensions.

A divergent approach towards sound organisation as is being proposed here starts from focusing on the apprehension of timbre as a multiple-threaded instance. Rather than translating timbres into forms or degrees within a scalable grid, it approaches its apprehension as a genealogic, mutable event. Rather than comprehending sound as an object, it conceives it as a singular confluence of diverse layers and conditions of production and reception. It does not build up a sound discourse on the assumption of a detached musical space; rather, it starts from the problematisation of the listening experience, to expose how our conditions determine it within the context of our cultural practices, assessing sound as implicating a genealogy of uses and values arisen in multiple codifications.

## 5.2. Form as problematisation

A series of hints from diverse areas can be considered to further elaborate such a strategy of sound organisation. One such model comes from a particular cinematic practice.

A text by critic Nicole Brenez elaborates on how filmmaker Jean-Luc Godard, rather than following a conventional paradigm of montage aimed at rendering the trajectory of a narrative, sets up the relationship between images in such a way as to raise questions concerning the axes that traverse them. She calls this the protocol of the 'question-image':

that the image ... becomes firstly a question, and secondly a critique. This form of the question no longer needs a character, no longer requires a questioner-figure even as a voice-off. Instead, the images become the protagonists themselves, direct and autonomous, of a debate, of an investigation, or of a mystery. (Brenez 2004: 171)

Instead of tying an image to the following one through the building of a represented continuity, the images are not meant to imply each other but are rather confronted in a configuration that problematises its decodification. The image is conceived as a complex involving many layered reading possibilities.

If we were to replace *image* for *sound*, this definition would be completely applicable to the kind of strategy being proposed here. Paraphrasing the statement above: instead of tying a sound to the following one through the building of a represented continuity, the sounds are not meant to imply each other but are rather confronted in a configuration that problematises its decodification. The sound is conceived as a complex involving many layered reading possibilities.

This approach considers a way of organising sound relationships which problematises the forms of its apprehension, the traces traversed and codes at play in it. Rather than conceiving sound as a raw matter that can be shaped, it starts from an account of sound as events which already imply a degree of organisation embedded in the circumstance of its apprehension.

A parallel to this strategy can be drawn from musicologist Herman Sabbe's interpretation of Morton Feldman's compositional strategy as a series of 'temporary conditionings and deconditionings and reconditionings' (Sabbe 1987: 10). Based primarily on Feldman's extended works belonging to the last ten years of his oeuvre, this interpretation puts the stress on the fact that his procedure, through a particular process of variation, juxtaposition and disorientation of attention, constantly poses a question on the focus of the listener. As each shift in emphasis, each slight decontextualisation of the previously exposed pattern is realised, the focus moves from the sound objects into the process of apprehension itself.

By exposing how the same sound, isolated already from an expressive functionality, is slightly shattered in its apprehension through a different set of relationships, it dissolves the focus from the object and draws it into the mutable conditions of our apprehension and its latent schemes.

Within the realm of timbre, such a strategy deals with the multiple crossing threads that constitute it. Through the coupling together of diverse timbral instances, the diverse aspects at play in the apprehension of each can be brought to the fore. Conceiving timbre as a mutable and multiple event, this kind of sound organisation is aimed at a problematisation of the layers constituting it, as was the case in the regime of the 'question-image'.

## 6. CONCLUSION

The use of media appropriation, low-fi and craft electronics, and re-use of found components on several practices of electronic sound production since the 1990s has brought up a reconsideration in the value of technologically produced sound. The axis has shifted in these practices, from the focus on technologically produced sound as an *artificial*, anonymous and malleable material that gets shaped in diverse forms, to its manipulation as a regular component of our habitual listening experience. Operating on these materials implies operating on the registers of our aural culture, a field traversed by a reservoir of practices, affective imprints and technological determinations.

As this article analyses, the inception of electronic sound within the circulation of media yields its apprehension as the confluence of multiple conditions. Rather than conceiving sound as a detached, closed, entity, it becomes conceived as an instance at the crossing of multiple threads. Upon this understanding, an approach to sound organisation emerges, which places this multiple nature at its core, its aim to deploy and problematise the conditions at play in our experience of the sound.

Timbre is reassessed; it becomes an instance of individuation traversed by collectively defined circumstances. It comprises a genealogical thickness, a coalescence of diverse processes at play.

If we understand the role of media in organising the ways we experience sound, operating on the registers of media becomes the possibility to operate on and problematise the conditions that build our practices of listening.

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