

# NEW INSTRUMENTS - NEW BODIES: TECHNOLOGY, POWER AND THE POSTMUSICAL BODY OF RESISTANCE

*Music as Embodied Process and the Instrument as Techno-political  
Metaphor*

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by

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The tensions between musicians and technology in the digital age have to be understood in terms of a longstanding epistemic gap in which science and the industry operate according to market driven forces and to cartesian mind-body splits, which in the context of contemporary media culture attempt to produce disembodied notions of interface. Traditional musical instruments have also undergone historically different processes of standardisation according to the specific political economy of music in the context of longstanding globalisation processes, that are embedded in similar frameworks for subject formation. However I will argue that the *embodied character* of music is articulated and cultivated in the context of traditional instruments, even at the expense of not being taken fully into consideration, or precisely because of this lack of regulation.

To describe music as an embodied process means to frame it within a different context of interpretation than music criticism and history has usually done, it means understanding, along the lines of some of the contemporary cognitive theories of enaction (F. Varela), proprioception or mirror neurons, that, on the one hand what we call perception is always crossmodal: hearing is never just about hearing, it always involves other modalities of the sensory anatomy in ways that go well beyond clinical conceptions of synesthesia, that are not to be described at a purely abstract and structural level, but which are dependent on the cultural contexts, power relations, and how these negotiate the anatomy of perception itself within conflicting disciplinary bodies and political economies.

On the other hand it means understanding music as a thinking process that happens in and through the body that listens or performs, its crossmodal character is also partly accounting for this direct relationality of music to the body in a broader sense. This takes us to cognitive theories that acknowledge that cognition is not situated inside the brain but that it happens in and through the body, that thinking itself is a process of relational forces (M. Foucault), affective intensities (G. Deleuze & F. Guattari), that is never purely mental but that it happens in so far as the forces move along with the body that thinks, as the body that thinks.

Music is therefore never to be reduced to a purely structural and abstract set of functions. Rather, musical abstractions, forms, scores and modes of writing are but sedimentation processes of the ongoing improvisation of the bodies. To territorialise music as a discipline related only to hearing is already a move that pertains to power structures and relations, to the way in which a particular sensory anatomy historically becomes the substrate for building disciplinary bodies and the corresponding political economies.

So, music is not to be reduced to a score or to any other forms of abstraction from the bodies that perform it: none of these abstractions have any meaning whatsoever when they are not coming in relation with the affective body at an instrumental level, when they are not at the service of reinvoking other embodied forms of experience on which the learning of music are based: music is learned from body to body, it is the process of embodiment of the affective intensities that we perceive in the other body that accounts for learning music making or composition for that fact (mirror neurons theory may affirm this proposal). Structural abstractions are not *a priori*, but instrumental to the process of embodiment, and therefore come *a posteriori*, they come after, as an effect of the improvisations of the affective body and its relationality within specific frameworks of power, economy and culture.

The long processes of transformation of the traditional instruments, which are to some extent a result of the transformation and demands of the evolving musical

idioms, have generated a whole set of metaphors for embodied technologies: the instrument is not only the physical object, it is also the body of the performer and the space it operates in, it is furthermore, the specific ways of using it, the specific kinds of music languages and styles within which the instrument is meaningful and outside which it is meaningless.

We ought not to understand a musical instrument as a means of meaning production in the sense implied in verbal language. My assumption is that music defies reduction to meaning in a strict sense, and that it operates in an open and productive field of affect generation: to embody a music that you hear means to put it in relation with the open field of the affective body in all its strata and lines of escape, and this means that every time you hear a music, the affective body is generating new sets of affective coordinates and intensities, every act of embodiment is productive, radically creative, and defies reduction to any universal set of frameworks for meaning production.

Media culture not only relies upon reductionist binarisms of mind vs. body, but also relies very strongly on assumptions about universality that turn up to be very problematic in this context. Universality of language is to be understood under this light as a political fiction of specific hegemonic regimes of power, namely western logocentric, white, male, heterosexual, middle-upper class regimes that demand certain forms of uniformity/normativity in bodies in order to constitute regimes of exclusion and institute themselves as sovereign. However, even verbal language defies its supposed universality at every moment, since each of these very words, as they are heard or read, produce radically different set of associations, and potential interpretations in the bodies, they arouse the affective body in all its potentials, producing a proliferation of dissemination of meaning (J. Derrida) where meaning itself becomes a kind of unreachable entity, therefore a fiction.

Music is also articulated in the context of cultural normative regimes, in terms of gender, sexuality, race, class, bodily difference, age, and other. It can be said for that fact, that the disciplinary field of music is one of the many fields through which such categories are normatively reinstated. Indeed I would argue that

music has a relevant role as instrument of implicit power within latecapitalist regimes since it comes to us behind the façade of leisure or of the “liberating” experiences that are often supposed to underlie artistic domains, whereas we are largely unaware of the ways in which music is structured in terms of power and even less of the way in which it crafts us as affective and relational bodies. The latter relates to such issues as the ubiquitous proliferation of commercial music in the streets, or for that sake, the proliferation of technologies of music that behind the façade of democratisation are reproducing specific styles according to the needs of the market.

It is of course not quite right to give the market such a monolithic and deterministic profile: we certainly resist the processes of standardisation and assimilation in many points, and, to put in words of Foucault, life is always exceeding the mechanisms of control that seek to make it uniform, however I am concerned with the fact that markets are developing extremely successful mechanisms for the assimilation of difference into the domains of standardisation that it needs in order to operate, thus erasing difference in diverse and problematic ways, inducing new implicit forms of exclusion and violence, kinds of discomfort for which we have yet no account, they are still in the domain of the unspeakable. The success of such mechanisms is precisely related to the implicitness of the process, to its concealment. It is therefore urgent to generate critical frameworks that unmask these processes.

For instance we need critical approaches to the ways in which the video industry is affecting live music making in so far as the screen is absorbing the live experience and we are mediated by it even when attending a live performance. How globalisation processes are affecting music learning and inducing standardisation in the music styles themselves. How the issue of the general public that is produced by mass media is also problematic, since no general public really exists, it is part of the fiction of the global and the universal: communication, affects and relations are always specific, and so is any field of music making and reception. The process may arrive up to critically redefining structural and physical models of music in the context of globalised domains of

scientific research, the technologies used to produce them and how they pervade the industry and the instruments derived from such models.

Nevertheless media culture is working mostly not in the sense of acknowledging this openness and specificity of communicating bodies, but rather denying it and thus attempting to reduce embodied interaction to minds that interact exclusively according to the fictions of universality that verbal language pretends to provide. It is within this context that interfaces in new technologies of communication are generally produced within a framework of strict correspondences and functionalities, as in the mouse, the keyboard and the virtual desktop. It is about a regime of simulations, not of reality itself which is irreducible, but of discreet and cartesian representation of reality. How very far away from the movement of the dancer, that swings its potentials of meaning in infinite directions as it is embodied by the spectator, or, for that sake, how very far away from the musical instrument.

*The musical instrument is a powerful metaphor to redefine technology as embodied and for defying logocentric frameworks of representation and communication.*

Musicians are in a no man's land between on the one hand standard technologies produced for the industry, and on the other a speed of transformation that prevents sedimentation of styles and production of shared standards. The speed of transformation in digital technologies makes it impossible for specific languages and styles to sediment. The degree of standardisation is also unprecedented.

There is a need for longer processes of sedimentation and for the development of specific and embodied interfaces (instruments) that take into account the openness of embodied interaction, in the level crossmodal perception and of exceeding meaning-oriented and functional frameworks. A particularly conflictive and rich arena for research in this direction is in the field of gestural control and motion analysis for the production of musical interfaces, interactive dance and performance, and HCI in a broader sense.

These should imply the production of new languages or idioms, since technology is not neutral but is constitutive of specific forms of thinking and representation. To use existing technologies generally means to enter their frameworks of thinking and representation. You press a button and apply an effect, but we are generally unaware of the genealogies of any of those effects or filters, how they comply with certain existing styles and forms, and through them with certain frameworks that constitute power relations. They come to us through the fiction and façade of “technology-as-liberation” of the democratisation of technology, and we are largely unaware of the colonising effect that technologies have on bodies and territories, as instruments at the service of implicit power regimes, such as latecapitalist and neoliberal societies.

There is a need to confront these implicit processes of standardisation through producing critical frameworks and also through a counter production of technologies, of instruments, of languages and idioms: our technology is our language. We mostly operate with technologies that are given to us, that work at the service of market driven forces, at times they have been directly developed for the military or the medical industry, and seldom do we work in deeply reappropriating them, or in subverting their instrumentality.

There is a need for transdisciplinary platforms of research, production, education and diffusion, that bring together at the same level researchers, artists of various disciplines, the industry, critical thinking, and also actors from the social and political sphere. A space for critical confrontation in which to redefine the processes of production of bodies, affects, knowledge, subjectivity and power. Such spaces are hardly to be found: when such encounters happen there tends to be an asymmetry of forces where techno-science and the industry tend to look down on other domains, such as art, while rejecting the criticism that may come from the arena of philosophy.

*To redefine disciplinary boundaries is thus a political task that confronts political economies and power structures, and to undo and transform these is both a difficult and necessary task.*

But the process takes us even beyond this proposition: if we undergo a task of critically redesigning the boundaries with the visual, the spatial, movement or the textual/verbal in interactive digital contexts we are *questioning the sensory anatomy of the body itself*. If we develop interactive systems where the relations between music and other domains is redefined, through exploiting the open domain of cross-modal interactions, then we are no longer working within the strictly defined fields of existing arts disciplines and practices, since these relate to the sensory anatomy that has structured their divide. If we conceive a cross-modal or trans-modal instrument, in a transmedia context of arts and technology production, then we are already in a post-musical, post-visual, post-architectural or post-coregraphic domain, in the sense of having undermined and surpassed the constitutive boundaries that account for the discipline. We are in fact generating new disciplinary fields, new potential anatomies of the senses, and with them confronting existing disciplinary and political economies and power regimes.

Building new kinds of instruments for new kinds of musical languages and bodies thus becomes an entirely political endeavour that can have far reaching and visionary consequences that relate to the transformation of the social body as a whole, or to political projects of resistance to contemporary forms of implicit power, hegemony and postcolonial empires: to the new forms of colonisation of bodies and territories.

To re-embodiment technology means to question the hegemony of the industry, its erasure and standardisation processes, and to produce a new disciplinary body. It means to produce a new kind of musical and postmusical body, that challenges current political economies and power structures, as well as other forms of domination and cultural normativity, regarding gender, sexuality, race, class and other issues.

What kinds of effective politics, can we produce through such a project? What kind of politics would that be? It is perhaps a question of resistance to power

regimes, but it is also a question of producing new forms of body-subject, new political economies of the social body.

Can we produce new kinds of laws that according to this new conception of the affective body and how it comes to be constituted through the ways in which markets act upon us seek to regulate that process? What kinds of laws could they be? The prohibition/regulation of music in public spaces? The regulation of publicity? The regulation of the music industry in all of its domains? If so they should be considered instrumental for the destabilisation of a certain regime of power, not as elements of a new regime of normativities and exclusions. Thus such a process would always be at risk, and in the need of being confronted through a permanent critical struggle, in order to avoid falling into the trap of reifying the kind of regime that we seek to question.

Uncertain is what far reaching effect we may have in our endeavour, but I provisionally propose the possibility to work along the following other two lines that I already mentioned: the production of specific transdisciplinary fields of exchange and production that critically problematise this field of concern from a variety of perspectives and allows to build new kinds of strategic alliances for potential disciplinary fields. And, in relation to the first, the production of new kinds of technology, *through the metaphor of the instrument as body*, that seek to defy power structures at various levels and propose new disciplinary and affective configurations, new kinds of potential formations for the subject and the social body.

I will briefly make reference to the ways in which we are approaching these two lines in the context of the Institute REVERSO. [www.reverso.org](http://www.reverso.org)

Along the first of the two lines we have been developing several initiatives, of which I will particularly mention the Workshop of the Technologies of the Body, which is precisely a laboratory for generating such a transdisciplinary space of confrontation as described above. It is a nomad, independent initiative that we have been organising mainly in Madrid, in collaboration with various public and private institutions, with no specific periodicity, at least once a year, in which we

bring together international panels of artists, theorist, technologists, researchers and activists, in a single space of debate, exchange, networking, research, production, education and diffusion, with a limited number of participants, and a hybrid format of seminars, workshops and public presentations and performance / installations. [www.reverso.org/TTC.htm](http://www.reverso.org/TTC.htm)

Along the second line I will speak of the most recent of our productions, the performance-installation, or metaformance, ANTIBODIES OF SURVEILLANCE -MICRODANCES, in which we use multiple wireless mini-surveillance cameras on the naked body as musical interface to process the voice of the performers and audience. The image of the cameras is analysed in a specifically designed programme of movement analysis that can be seen as an intensive surveillance system, however the parameters are used to process and dissolve the voice in real time, and eventually also the images themselves, that are being projected onto large translucent screen surrounding the space occupied by performers and audience all together. Cameras approach at times the hands and face or other body parts of the audience, which become then part of the landscape. [www.reverso.org/Antibodies-microdances.htm](http://www.reverso.org/Antibodies-microdances.htm)

Thus we are working with a displaced and fragmented notion of visual body, since the images through which we move and process our own voice are *nearly intelligible* fragments of moving body parts: they may be hands, or parts from the chest or from the genitals, it is ever quite clear what anatomy they refer to, they actually attempt to question *anatomy as destiny* for the intelligible body. The music is thus produced through this set of displaced and mediated interaction, in which eventually the microdances of my hand or my chest or my genitals are going to process the sound in ways never fully under control. The surveillance system is thus subverted and inverted to produce a relational body that defies sensory anatomies and representations of the body, thus placing questions also on the intelligibility of the body in terms of sex and gender: it is a body situated beyond the gender binary, it is not even making a parody of gender, as in the context of queer studies and practices, but it is post-queer, it defies the realm of representation in which anatomy as destiny becomes possible. The postmusical instrument thus not only attempts to subvert a paradigmatic mechanism of

surveillance and control, but to produce a pangender, metasexual body, and to transform disciplinary relations that constitute the possibility for the social body altogether.

The project is intended as an ongoing research and prototyping, a different question altogether would be how to develop a coherent social and political, as well as artistic and technological movement in which similar or very different projects may proliferate, in the framework of a critical confrontation, and open field of antagonistic struggles in relation to the power regimes and the technologies that constitute us, and which we may work upon for their radical transformation.

**Jaime del Val** (Madrid 1974) is a transdisciplinary producer (artist) of (old and new) technologies of sound, image, space, movement and text (composer and pianist, performer and choreographer, painter and digital artist, virtual architect and writer); philosopher; multidisciplinary activist (environmental, (post-)queer and other); independent researcher, organiser of events, teacher and director of REVERSO in which he promotes diverse initiatives, such as the Workshop of the Technologies of the body, in the crossroads of the body, arts, technology, critical theory and political action. His work in performance, media-arts, dance and technology, electro-acoustics, and virtual generative architecture as well as in critical theory, deals with producing new forms of body-subject that counteract existing frameworks of power, exclusion and violence; and has been extensively presented, awarded, performed, published or exhibited in Europe and America. His interventions into large scale urban plans in Spain have had an important social and political impact, having achieved, amongst other things, the paralysation of the notorious Algarrobico Hotel in Almería, amongst many other illegal urban plans, through several of the social movements and associations directed and founded by him. [www.reverso.org](http://www.reverso.org)