

4.5 **Post-digital music and ‘subtechnological’ ideas in Chilean electronic music practices**

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× **Abstract**

The role of technology in the construction of Latin American culture and identity is a complex and everchanging topic. The appropriation of technological artifacts, ideas and modern perspectives have changed its focus from the modernist paradigm of the twentieth century to a post-digital approach, which embraces post-modern values. In this paper, I suggest that both perspectives respond to Latin American ‘subtechnological’ (Castillo, 2014) approach to technology, specially in arts, music and the electronic sound practices. I explore two opposite electronic music creators in their own Chilean (and Latino) context. In both cases, sound experimentation is motivated through certain relationships between their culture and technology.

Keywords: technology, Latin America, appropriation, modernism, electronic music.

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1. **Introduction**

In this paper, I bring together two concepts related to technology that are intrinsically tied to Latin America. Those are the concepts of subtechnology as explained by Castillo (2014) and the post digital aesthetics as studied by a large array of researchers in the intersection of arts and technology.

First, I will look into Latin America’s relationship with technology, especially in the artistic and avant-garde fields. I propose here that this territory has been in a constant modernization process under a Latino modernism paradigm. This process has set the ground for experimental practices from the early twentieth century and has been equally reinforced and subverted ever since. Then, I’m going to expand on both main concepts of this paper—subtechnology and post digital aesthetics—and explain how they are related to each other in the context of Latino technological creation and the modernism paradigm. Finally, I’m going to shed light on how Chile, as a Latin American case of study, has changed its focus from a subtechnological model of modernism paradigm to a subtechnology of experimentation and ‘resistance’. I compare early electronic music practices in Chile, mainly by José Vicente Asuar, and current trends in electronic experimentalism that are more related to a punk ethos, collaborative methods of production, and innovation decentralization from academic circuits.

It is often common to see Latin America in a continuous ‘non-ending’ process of development compared to the hegemonic powers of production (Europe and the United States mainly). In terms of technology development and research, there is not a different scenario. According to Ciocca and Delgado (2017), “Latin American society has become accustomed to expect new science and technological developments to come from developed countries rather than from their own scientists” (Ciocca & Delgado, 2017, p. 847). This dissociation between technical and scientific research and the territory’s culture, politics, and social values is deeply rooted in historical precedents, from the political colonization by the Iberian Peninsula in the sixteenth century to the cultural-economic global colonization in recent times.

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Latin America's relationship with technology has always been mediated by its culture and its aspirational desire to become a modern territory. This might be translated into a continuous appropriation of European technological culture by Latino elites to position themselves into a modern cultural standard. However, despite Latin America's eagerness to become part of the modern world, according to Beatty et al. (2017, pp. 138-139):

for two centuries the world has been divided into two groups: technology exporters (the early industrializers, mainly in the north Atlantic, plus Japan) and technology importers (everyone else, or the relatively late developers, from eastern and southern Europe to Latin America, most of Asia, and Africa).

In the same vein, Latino artists and intellectual elites from the early 20th century reveal a profound desire to position themselves as a direct ramification of the European and American Avant-Garde. Perceived as a modernizing project, the agenda of these Latino groups was to merge with the globalized and 'mostly civilized' artistic expressions of the old world by going even further in the making of radical perspectives.

For Machuca (2011), Latin America is a place where insider and outsider cultures constantly collide. This syncretic approach gives birth to local artistic aesthetics that comment on technology at the same time it is being used. This author proposes that: "in Chile (as part of a Latin American perspective) our claimed identity has been composed by discontinued, fractured and sometimes incomplete superpositions, at times overwhelmingly technical and diverse" (Machuca, 2011, p. 69). This eclectic diagnostic of a Latino cultural paradigm speaks about a permanent state of identity construction and the cultural and aesthetic outcome of that process.

2. Modernity versus Modernism in Latin America

The case of Mexico's Julian Carrillo may be interpreted as paradigmatic as he sought to propose a completely innovative approach to XX century music by exploring micro tones. His perspectives on composition and notation based on a strict microscopic subdivision of the temperate tone were contemporary to avant-garde approximations in early contemporary music. They preceded other similar micro-tonal initiatives from composers like Harry Partch and Alois Hába.

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For Madrid (2003), it is important to understand Carrillo's ideas, as well as other expressions from Latino composers from the early twentieth century, as a manifestation of modernism that is not to be confused with modernity. The latter concept refers to a process of modernization sought by European and American cultures to achieve a state of technological and social development at the cost of imperialism and cultural colonization. The former, however, is the process of assimilation of the 'civilized' European culture by (in this case) Latino wealthy elites in order to establish themselves and the territory as part of the European lineage of expansion. With this agenda, the idea of these minority wealthy groups was not to give an image of Latin America as a formerly colonized territory but rather to make it look like a continuation of the European cultural paradigm.

The modernist idea encouraged artistic practices not only for its ability to express people's thoughts and intellectual desires but mainly for the degree of performativity with which a creator is able to construct and perform the idea of cultural development. As Madrid (2003) points out, music not only reflects the ideals of identity in Carrillo's compositions, but rather it is the result of a performative incarnation of the avant-garde European composer who seeks intellectual and technological advancement, but also, attempts to prove himself as a valid Latino contemporary artist.

This take on modernism versus modernity and its artistic dimension is explored by Castillo (2014), who coins the term *subtecnología* (subtechnology). It refers to an alternative perspective on technological advancement in which peripheral approximations to modern development use technology as a means of progress. This particular —especially Latino— usage of modern ideas, intellectual creations, artistic perspectives, and technological devices detaches the desired modern object from the environment in which it was conceived and is brute-forced into a new cultural background.

Castillo's idea is based mainly on how Latin American societies are used to administer, organize, and appropriate technologies from the industrial nations. The notion of technological invention is not an often-used concept in a territory that looks outwards in order to obtain answers to its modern agenda. However, it is essential to note that the continuous practice of administration and consumption of foreign goods, ideas, and intellectual

devices is, in fact, an alternative technological reality. While not strictly technology in a physical sense, Carrillo's (2014) idea of 'Sonido 13' is indeed a creative artifact based on intellectual performances of music practices related to modern conservatories and academic artistic aesthetics centers in Europe and the USA.

3. Post-digital practices and the democratization of experimentation

Eventually, the modernist paradigm of identity construction was overshadowed by newer approximations to technology and cultural discourses. Although the former approach remains active in specific groups and social apparatuses in Latin America, from politics to economy, art has seen dramatic changes around technology use, consumption, administration, and creation. New concepts like post-digital aesthetics, media archeology, and DIY perspectives have come to play a significant role in the paradigm shift of the late twentieth century to the new millennium.

In a Latin American context of modernist ideals and sought identity, post-digital artistic methods of expression, through processes like repurposing and appropriation, can resist and subvert the subtechnological approach to artistic expressions based on modern assimilation and consumption. Contemporary Latino perspectives on experimental electronic practices provide a new scenario that challenges the traditional and hegemonic technological powers in favor of a multiplicity of local narratives at the periphery of the industrial centers.

As Cascone (2000) proposes, post-digital aesthetics emerged as a result of the process of democratization of technological devices and thinking in the late twentieth century. As technology experimentalism rapidly escaped academic campuses and embedded in people's daily life, new music genres spawned, and new ways of production and collaboration were achieved. As Adkins et al. (2016) suggest, these music genres like glitch, noise, experimental electronics, IDM, and even widely known techno and EDM music created parallel narratives to the electroacoustic/acousmatic works by classical music composers.

The Post-Digital concept may not only refer to an artistic sound-material ideal but rather as an alternative approach to intersect technology and artistic creation. As Cascone's approach to post-digital is through Glitch and Failure, other takes on post-digital problematics focus on other aspects surrounding sound creation as it is the 'liveness' dimension, collective collaborations, and inventive DIY methods.

The Do-It-Yourself attitude, most found in punk groups and scenes, profoundly impacted technology development by changing the mindset of consumption to production in social groups that otherwise would not have the opportunity to access state-of-the-art artifacts and electronic devices. For Fernández and Iazzeta (2015), the appropriation and repurposing of discarded devices—as DIY methods present in Hardware Hacking and Circuit Bending practices—may challenge the industrial apparatus of technological production. By entering the black box of electronic devices (Hertz, 2012), the user learns and grasps the materials used in the fabrication of an industrialized object, thus starting a process of deproletarianization in which the user has complete control of a new creative environment.

Hertz and Parikka (2012) also address circuit bending as an interesting DIY approach to the intersection of music creation and technology. The act of repurposing discarded media into new musical instruments may be seen as a strategy to re-gain the relation between crafting artifacts and discourses simultaneously. Also, it is an application of media archeology as an artistic methodology that challenges the notion of technological development linked to hegemonic narratives (Hertz & Parikka 2012). Despite Herz and Parikka calling repurposed devices 'zombie-media' for their liminal state both as obsolete and live artifact, others take on appropriation may challenge the notion of object deadness. As Spowage (2020) states, it is crucial to "refuse to recognize the concept of obsolescence, because I consider all technology to be useful at any time in its life cycle" (Spowage, 2020, p. 69).

It is often common to see Do-It-Yourself methods being developed as part of collective efforts to resist industrialized production. From British punk music scenes resisting and negotiating with industrial record companies to hardware hacking groups creating and educating people to change their relation to technology from user to producer. Thus, post-digital aesthetics reinforce the idea of collectiveness deeply related to experimentation. Ferguson and Brown (2016) are aware of this aesthetic discourse by stating that: "Although as musicians we are interested in sound, our methods, processes and materials are at least as important." (Ferguson & Brown, 2016, p. 129).

4. Latin American perspective shift

How do these two concepts —modernism and post-digital aesthetics— collide in the growing process of Latin American modernization? How was a deeply rooted identity agenda permeated by globalized notions of technological democratization and cultural empowerment? This type of process often involves multiple and complex factors from communicational development impact to politics and economic growth. The analysis of these criteria would be massive and escapes the exploratory limits of this paper. However, here are exposed two narratives corresponding to each of the technological ideals explained here and how the latter comments on the previous one.

4.1. José Vicente Asuar and the early Chilean electronic music

It would not be hard to guess that Chile, as a late industrialized, often marginalized country, imported its first digital computers in the early sixties. First as a tool for government administration matters in 1961 and later as educational improvements for the School of Engineering at Universidad de Chile (Albornoz, 2015). However, electroacoustic music in Chile started a couple of years back, in 1956 with the piece 'Nacimiento' by Chilean-Israelite composer Leon Schidlowsky and with the foundation of the Taller Experimental de Sonido by Juan Amenábar and José Vicente Asuar (Schumacher, 2005).

The early electronic experimentalism was partly influenced by avant-garde European music, mainly by Boulez and Meyer-Epler, who both visited Chile in that decade. Amenabar, who was an artistic programmer at the 'Radio Chilena', received the direct influence of traveler composers like Fernando García and Gustavo Becerra, who often moved between Chile and Europe, bringing with them new music and compositional narratives from the consolidated European composers (Schumacher, 2005). Moreover, the engineering background that both Asuar and Amenabar held proved to be useful to pursue higher technical achievements in the electronic music field by creating their own analog instruments.

The digital disruption played a significant role in the modernization project, especially for Asuar, who moved from analog synthesizers to computational calculations and language programming. This material shift from analog to digital was a response to two factors: Asuar's relationship with academics and students of the engineering faculty of Universidad de Chile and his visit to the University of New York Electronic Music Studio at Buffalo in 1971 (Albornoz, 2015).

Both Asuar's career-achieving projects —the virtuoso computer and the COMDASUAR— originated after his initial exploration of the digital realms at Buffalo. The lack of extensive hardware and electronic music studios in Chile would have made it impossible for the composer to dive into the synthetic world of computer chips. In order to broaden his approach to music experimentalism, he had to import, and ultimately appropriate, an alien artistic practice along with the physical and technological artifacts that made possible its materialization.

The digital approach of Asuar fits perfectly in the narrative of subtechnological modernism since the use, administration, and import of these technological and cultural artifacts gave birth to two educational LP's: "El Computador Virtuoso" (1973) and "Así Habló el Computador" (1979). Both compilations of works were published as didactical sound materials that explain the use of computer technology in music creation to a broad aficionado audience. This pedagogical motivation of Asuar shows an awareness of the lack of contextualization in which these pieces were conceived. Hoping to fill the cultural gap, the composer replicates the modernist approach of appropriation by creating a new Latin American environment aided by the educational material that he provides in his recordings.

Thus, the early digital music exploration in Chile was another form of technological and cultural importation that, once decontextualized of its origin, creates new narratives and meanings. These narratives seek to educate and make use of technological development fabricated outside of the Latino boundaries as attempts to put Chilean experimentalism in the electronic music spotlight.

4.2. 'Posternura' and the post-digital approach

From the early electronic and digital technology appropriation of the late sixties, we jump to a contemporary perspective on technology use and administration. Despite Chile's current profile of a semi-industrialized

country with a perceived favorable economic balance, production and fabrication of artifacts are still far-fetched concepts. In this scenario, electronic music and experimentalism emerge through the post-digital perspective in a rather diverse way. Even when there still are modern attempts to reach a modernist paradigm from conservatories and academic electroacoustic groups, the proliferation of alternative experimental collectives may only be explained through the desire of exploring Latin American identity with its own approach to technology and culture.

I take *Posternura* as a descriptive example of this artistic approach. This collective is based in the southern Chilean city of Valdivia, which challenges the Chilean tendency to become a centralized country. It is formed by a diverse group of people with different backgrounds. Although most of them already possess academic training from high educational levels, their activities take place outside of formal educational spaces. These activities range from informal concerts, workshops, and an annual festival called 'Campamento Cyberpunk' (Cyberpunk camp), where multiple *Posternura* acts and guest artists converge.

The artistic practices that are explored by the collective artists range from hardware hacking, coding, electronic post-punk music, noise made with hardware or PD patches to 3D gaming interfaces with sound reactions. As one may notice, it is a diverse plethora of artistic manifestations that are linked together by a particular understanding of the tools used to execute their works. It is somehow more important to reflect on the technological devices that are used instead of the aesthetically refined sound that may come out of it. Felipe Weason, one of the founder members of *Posternura*, states that "there is a certain 'punk' attitude by not paying attention to decoration or when showing what is inside our music"². This perspective resonates with Hertz and Parikka's take on circuit bending and black box unveiling (2012).

However, from a Latin American perspective, *Posternura*'s practices are inserted in a rather hostile environment of accelerated technology consumption. The hegemonic powers manifest their economic pressure in South American societies by pushing a neo-liberal agenda to the limit. In this context, the most democratic practices of technology appropriation and re-signification present in post-digital practices described earlier may be seen as acts of resistance to the urge of technological retail consumption. By embracing open-source software, DIY methods, collaboration, and decentralized organizational structures, this collective poses questions around technology, culture, and their territory.

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The modernist paradigm seeks to apprehend the European culture by forcing it into a new ecosystem. The postmodern post-digital approach comment on the differences in technological development and the local narratives that arise from the identity agenda in the artistic Latino community. However, I propose to notice the similarities between these two perspectives. Both come from a specific motivation of engaging with technology and the cultural outcomes that technology may provide to the artists. From theoretical compositional strategies to widely spread open-source coding languages, the roots of these technological artifacts are rather far away from the Latino daily life. However, their usage and administration facilitate the proliferation of new aesthetical and analytical local reasoning.

From this point, it is up to the user to embrace the civilizational project of the hegemonic powers or completely use the technologically appropriated tools to build a Latino usage. For both Asuar and *Posternura*, even when their perspectives may be classified in radical ends of the given spectrum, they both tend to fall somewhere in between. This shows the inescapable nature of creation and transculturation that technology administration cause in the periphery of cultural and technological development.

References

- » Adkins, M., Scott, R., & Trembley, P. (2016). Post-acousmatic practice: re-evaluating Schaeffer's heritage. *Organized Sound*, 21(2), 106-116.
- » Albornoz, A. (2015, June). *Computer music in Chile: The beginning and some paths to nowadays. An historical review*. [Conference presentation]. Electroacoustic Music Studies Network Conference, Sheffield, United Kingdom.
- » Beatty, E., Pineda, Y., & Saíz, P. (2017). Technology in Latin America's past and present. *Latin American Research Review*, 52(1), 138-149.
- » Cascone, K. (2000). The aesthetics of failure: "Post-digital" tendencies in contemporary computer music. *Computer Music Journal*, 24(4), 12-18.
- » Castillo, G. (2014). Subtecnologías, metatecnologías, paratecnologías. In J. P. Concha & C. Robles. (Eds.) *Estética y técnica en América Latina* (pp. 265-279). Santiago: Pontificia Universidad Católica de Chile.

2. Felipe Weason. Personal Communication. 2021.

- » Ciocca, D., & Delgado, G. (2017). The reality of scientific research in Latin America: an insider's perspective. *Cel Stress & Chaperones*, 22(6), 847-582.
- » Fernández, A. M. & Iazzeta, F., (2015). Circuit-bending and DIY culture. In P. Guerra & T. Moreira (Eds.) *Keep it simple, make it fast!: An approach to underground music scenes*. (pp. 17-28). Porto: Universidade do Porto.
- » Hertz, G., & Parikka, J. (2012). Zombie media: Circuit bending media archeology into an art method. *Leonardo*, 45, 424-430.
- » Machuca, G. (2004). La desnudez del demonio vespertino [The nakedness of the evening demon]. In P. Hamilton, M. Carballas & G. Machuca (Eds.) *Video otra vez: once muestras de video arte contemporáneo* [Video again: eleven exhibitions of contemporary video art] (pp. 57-83). Santiago: Metales Pesados.
- » Madrid, A. (2003). Transculturación, performatividad e identidad en la Sinfonía N°1 de Julian Carrillo [Transculturation, performativity and identity in Julian Carrillo's Symphony No. 1]. *Resonancias*, 7(12), 61-86.
- » Spowage, N. (2020). Now I'm digital, where is my ritual? Exploring postdigital performance objects as totems for agency and ritual. *Leonardo Music Journal*, 30, 68-72.
- » Schumacher, F. (2005). *La música electroacústica en Chile* [Electroacoustic music in Chile]. Santiago de Chile: Self-published.