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Electronic dance music: discursive ambiguities

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Abstract

This article reflects on the ambiguities that constitute the discourses around the electronic dance music, highlighting the socially constructed character of the same ones. From the point of view of Cultural Studies, we will focus on *house* and *techno*. Its close connection with technology has constituted a paradigm shift in the way music is done and understood in the 21st century. We intend to position our view to the importance that this genre can represent in the training of music students in Portugal, namely in higher education.

Palavras-chave

Electronic dance music; new technologies; music teaching; Cultural Studies

Resumo

Este artigo reflete sobre as ambiguidades que constituem os discursos em torno da música eletrónica de dança, pondo em evidência o carácter socialmente construído dos mesmos. Sob o ponto de vista dos Estudos Culturais, incidiremos particularmente no *house* e no *techno*. A sua estreita ligação com a tecnologia constituiu uma mudança paradigmática na forma como se faz e entende música no século XXI. Pretendemos posicionar o nosso olhar para a importância que este género pode representar na formação dos estudantes de música em Portugal, designadamente no ensino superior.

Palavras-chave

Música eletrónica de dança; novas tecnologias; ensino de música; Estudos Culturais

Introduction

In an article published by Varèse and Wen-chung (1966), mention was made of electronic means of producing new, unprecedented sounds. Sounds that would challenge the music made until then, for example by creating new frequencies that had hitherto been unthinkable. Musical notation itself was regarded as being inadequate for this new world of musical technology. Of course, Varèse and Wen-chung faced severe criticism for wanting to do away with traditional instruments and the major musical works from the past, but all he wanted to achieve was to "produce a new flower. It didn't matter if at first sight it looked more like a cactus than a rose" (Varèse & Wen-chung 1966, p. 15). As Varèse and Wen-chung noted, electronics was an addition to music and not a destructive factor. For composers, electronics permitted freedom from the tonal system, and all its rules, and the chance to explore new tones with an endless panoply of new sounds.

But Varèse and Wen-chung believed that it wouldn't take long before someone would try to establish rules for this new world.

Electronic music appears to have been received well by listeners, bearing in mind the huge number of musicians and composers that have proliferated in this musical genre, at least within the "pop" world. In addition, the ease with which anybody can compose a piece of music by using the new software (which doesn't require in-depth knowledge of musical composition), has made the figure of the music composer more "popular" and less elitist. We still don't know, however, whether these more "popular" composers are recognised in the higher echelons of musical education.

Following the invention of magnetic tape it became possible to record sounds from any source, thus unleashing a revolution in the world of music (Chadabe & Torres Lima, 2014).

Various musical forms began to appear, such as *musique concrète* ("concrete music") in Paris by Pierre Shaeffer and Pierre Henry, that consisted of recording sounds from the natural environment which were later transformed electronically (Chadabe & Torres Lima, 2014). In the US, John Cage used non-traditional sounds in his work, such as radios and tin cans, and in Cologne Karlheinz Stockhausen, who had studied in Paris with Shaeffer, introduced purely electronic composition. This fusion of technology and music was just the beginning of what was to come in terms of electronic music.

> It was a remarkable moment in the history of music, when, for many composers, it seemed that anything was possible. All around the world, they shared the common aim of creating a new type of music based on the availability of all the sounds. (Chadabe & Torres Lima, 2014, p. 19)

The first sound generated by a specially designed computer-assisted programme – Music I –was heard in 1957 at the Bell Telephone laboratories (Chadabe & Torres Lima, 2014). The very concept of music was changing, at least in western culture.

John Cage also wrote a piece of music – *4'33* – that was hugely controversial. It consisted of four minutes and 33 seconds of silence, and aimed to break with the prevailing concept of music and advocated silence as an essential part of it. For Cage, music was the sounds, whether noises or sounds, that are "worthy" of belonging to a musical score. In *Silence: Lectures and Writings* (1961), he (re)conceptualised what is considered music by exploring technological developments such as the possibility of audio recording and the obsolescence of the score for notating new sounds. In fact, it wasn't hard to understand that the panoply of nature's sounds went beyond conventional musical notation, but the strength of the music establishment and centuries of tradition persistently concealed this reality.

"New music: new listening" (Cage, 1961, p. 10). Cage obviously had a notion of music that made him far ahead of his time, and it is interesting that he is considered to be an "erudite" musician and his ideas are studied in books on the history of western music. However, it is undeniable that his thoughts clashed with the established musical tenets of his era.

In this article we will look at electronic dance music (EDM), although it won't be possible to address all of its associated styles. The name EDM is highly generic (Fraser, 2012). We will look in particular at *house* and *techno*, while recognising that this area of music comprises an incomparable profusion of genres. For an outsider, at first sight it may seem that the names associated to each style are identical (acid house, acid techno, hardcore techno, aquatic-house), but for an insider, they represent very significant differences (McLeod, 2001). The influence of this type of music has grown exponentially and developed a close relationship with technology:

> these musical varieties are mostly made by combining hardware, such as samplers, synthesisers and rhythm boxes, with sophisticated computer-operated sound production software. These technologies make it possible for an artist or producer to make electronic dance music without knowing how to play a musical instrument – a strange idea in the geo-history of music. (Fraser, 2012, p. 500)

Besides this synergy, there is an association with the world of drugs, especially MDMA (also known as Ecstasy) that to a certain extent catalysed the creation of ever more euphoric beats (Fraser, 2012). Fraser argues that EDM, through its relationship with the consumption of certain substances, is associated with hedonism and places of specific consumption, such as nightclubs. Recognising that it has a subversive and political character, these characteristics should not be allowed to conceal its musical value. In fact, academic recognition of the culture of EDM has increased. According to Graham (2009, p. iii), the urgent need for research is linked to the rapid changes that characterise it: "Even the genre, subgenre or micro-genre we thought we knew yesterday is being transformed into something we can hardly identify".

EDM, in particular the genres of *house* and *techno*, has now become a popular musical form and the predominant dance style in Portugal (Silva, 2005). It is one of the highest exponents of the fusion of technology with musical creation. However, depending on the context in which it is received, it generates animosity or enthusiasm, representing the elite as much as the masses, seen as being "erudite" or "popular", and mainstream or underground. These ambiguities may derive from the cultural relations that permeate the world of music, raising a series of issues such as authenticity, cultural value, the definition of music and the musician, and the constant struggle between the powers-that-be and the "people".

We aim to analyse EDM from the theoretical perspective of Cultural Studies, in particular the definition of the word "popular" advocated by Hall (2003). "Popular" is defined according to the power relations between the dominant culture and the dominated. It always depends on its historical and social context. It thus becomes hard to say which particular piece of music is popular and which isn't, since this depends on the power games between cultures, whose rules are constantly changing. This idea is highlighted in Hall's work (2003) which notes that cultural objects don't have intrinsic value, their value is determined by the cultural context. What is the academic relevance of deconstructing discourses on EDM? Since almost all music is now electronic (Reynolds,

2007), to the extent that it is at least partly dependent on sound creation and production technologies, it is relevant to place EDM into perspective, by looking at its underlying cultural meanings, the identities it conveys and the music that it produces. While some of these issues are already comprehensively addressed by various academic disciplines, there may be some resistance towards legitimising this genre in the sphere of musical education, especially in higher education. Several studies have shown that the curricula of music conservatories have legitimised the idea of authentic music, based on the values of western erudite music (Arroyo, 2001; McCarthy-Brown, 2014; Mota, 2015; Nompula, 2011; VanWeelden, 2012). It has become legitimate to think that the same outlook is taught in universities. The persistence of these ideas may contribute to the training of musicians who do not consider EDM to be a valid musical genre, thus perpetuating the battle between "popular" and "erudite" culture.

This article aims to help deconstruct discourses involving EDM, in the hope that this will help democratise the contents and objectives of the musical curriculum in higher education, in the dialogue between students, educational institutions and society.

Between "popular" and "erudite"

The first ambiguity we aim to address is related to the uncertainty of the inclusion of EDM in the "popular" or "erudite" sphere. No matter how much we agree with Hall's perspective (2003) that these classifications are volatile and transfiguring, we can't deny their existence in society. The author asserts that these classifications have little to do with the cultural product itself.

In Hall's view, the term "popular" can be understood in different ways, including its connection to the traditional, retrograde and conservative. These connotations derive from the period when industrial capitalism needed to establish ties to the working classes and the people, with a view to creating a new social order based on capital, and these classes were always those which posed the greatest resistance (Hall, 2003). He also notes that common sense tells us that something is "popular" if it is consumed by the masses who, in turn, listen, read, buy and consume products persistently. This definition serves for marketing purposes. The word "popular" in this sense is associated with manipulation of the masses. Hall doesn't deny this idea, but also doesn't totally agree with it. He categorically affirms that, "no such thing as an integral, authentic and autonomous 'popular culture' exists outside the force field of cultural power relations and domination" (Hall, 2003, p. 254). According to the author, the people are not "cultural fools" (Hall, 2003, p. 253) and realise they are being manipulated by capitalist cultural industries and so sometimes resist, turning culture into a social battlefield. Now, if cultural products are not entirely manipulative it is because an affinity exists with them (Hall, 2003). The cultural industry of music certainly doesn't operate differently. In our view, one of the cultural battles EDM has to wage relates to its inclusion in music conservatories, namely those which focus on training performers to play instruments that are considered to be more traditional (violin, piano, voice, etc.).

Affirmation of electronic music has generally caused controversy and resistance amongst musical scientists, composers and musicians in general. For example, Grout and Palisca in their book *History of Western Music* (1998, p. 746) write that, "electronic and synthesised music has not dethroned, nor is it likely to dethrone, live music". The electronic music the authors refer to is not EDM, which, though it first appeared in the 1970s (Reynolds, 2007), is not mentioned. They were referring to other currents of electronic music, such as *musique concrète* or electronic music using magnetic tape. But these electronic genres are generally discussed and examined in the curricula studied by "erudite" music students, since they are associated with academic study and belong to an artistic tradition, while EDM is a form of "popular" music (Martin, 2012). Is it fair to suggest that an "erudite" electronic music exists, in contrast to "popular" electronic music, concluding that the latter doesn't merit major academic interest. What we aim to assert is that there is no cogent reason for such as differentiation, except for the fact that EDM fosters dance, pleasure and musical enjoyment. Pedro Ferreira (2008) reiterates that EDM can't be discussed without considering the importance of dance. He states that we can't assume that this genre is a continuation of *musique concrète* or electro-acoustic music, which he views as a crass error. He also says that some "erudite" composers, such as Stockhausen, are struck by incomprehension and even a certain repulsion when faced with EDM.

EDM is a musical genre with its own specific concepts and aesthetic. It originated in the USA – *house* in Chicago and *techno* in Detroit. It was initially associated with social minorities, such as blacks, homosexuals and "deviant" social behaviour (Reynolds, 2007). But while it could be considered to be an underground genre in its early days, it has now become an evident and widely disseminated element of contemporary society, including dedicated music festivals, such as Tomorrowland and Ultra Music Festival. At times described as machine music, it tends to envision and produce music that differs from classical forms, where the creative process is more relevant than the actual performance. Moreover, Reynolds (quoted in Boia, Ferro & Guerra, 2010) asserts that the electronic genre challenges the human body, due to its rhythmic variations and textures. For Wiltsher (2016), the aesthetic of EDM highlights aspects such as functionality, electronic sounds and repetition. He reiterates that dance is a core aspect, and the more it serves this purpose, the more beautiful it becomes. The sounds produced by synthesisers, samplers, etc., represent alternative aesthetic values. Finally, repetition, as Wiltsher suggests – with the overlapping of loops[1], melodies and harmonies that alternate throughout the track – endows a feeling of progress. The genre's composers are aware of this on the tracks, which brings them compositionally closer to "erudite" music (Wiltsher, 2016). According to Wiltsher, the composers work within strict rules so they can exchange their tracks and allow them to be more easily remixed.

The similarity between the formalism valued in "erudite" music and EDM are obvious, but the harmonic and melodic simplicity of the latter may explain its "popularity". This is because classical musicians are trained to hear harmonic and melodic

[1] A "loop" is a sample that is constantly repeated.

progressions and this represents the main focus of their music, while the harmonies and melodies in EDM are often very basic (Reynolds, 2007). If they were very complex, they would distract the listener from its main focus: the sound and its contrasts in tone. Reynolds also notes the physicality of electronica, in the sense that the entire body is involved in the powerful vibrations of the sound systems, in the nightclubs, making it essentially a physical experience, with obvious reflections on the mind. Despite this fact, "erudite" electronic music also doesn't use traditional compositional methods but its avant-garde spirit may be the reason why it is classified as being "erudite". If one wants to talk about the avant-garde in EDM, this can be found in the sounds themselves, which the musicians are constantly trying to synthesise, transform and mix: "they like to describe what they do as scientific research, imagining the studio as a sound laboratory" (Reynolds, 2007, p. 313). EDM can be said to be both "erudite" and "popular" since it operates in different ways in different contexts. It is "erudite" when perceived from the perspective of its creative and compositional process, which has similarities to "erudite" music. It may not be as harmonically and melodically complex but it is in the sounds, rhythms and the effect that it has on the dancing audience, that it acquires its degree of complexity.

EDM is also "popular" from the perspective of mass musical consumption, whereby "House music almost completely dominates the country's (Portugal's) discos and clubs" (Silva, 2005, p. 67). The ambiguity here is therefore, we suggest, linked to the sphere of power, whether institutional, cultural or even political. EDM may be neglected at the academic level merely due to its "popular" connotations, which have nothing to do with the music itself, only the context in which it is produced.

Taking MacCutcheon, Greasley and Elliot study (2016) as an example, we can see that the participants unanimously considered that DJ-ing[2] develops musical skills, above all at a rhythmic level. No less important was the reference to structural knowledge of music, such as the recognition of musical phrases and timing, as well as the technological and performance-based knowledge inherent to being a DJ.

As to whether DJs were as culturally relevant as classical musicians, the latter surprisingly replied in the study that they are equally relevant, or may even be more relevant. Some people in the group of non-musicians and DJs replied that they were less culturally relevant. The study's authors expected each group to defend their interests but that didn't happen.

Could universities be resistant to a paradigm shift towards music and musicians in the 21st century?

EDM's contribution to (re)defining the musical instrument and the musician

In the 20th century, Varèse and Wen-chung (1966) foresaw a new aesthetic and accurately identified that the music of new instruments would provide opportunities to combine rhythms, melodies and harmonies that went beyond human capabilities.

[2] A DJ (disc jockey) is someone who plays the electronic tracks and remixes them in real time.

The first electronic musical instruments – such as the telharmonium, theremin, trautonium, ondes Martenot, electronic organ, electronic sitar and the RCA synthesiser – introduced new sounds used to play music along the same lines as traditional instruments (Chadabe & Torres Lima, 2014).

When we think about the concept of the musical instrument, we traditionally associate it with an object made of wood or metal that vibrates (Tanaka, 2006). According to Tanaka, they are manipulated by people who explore their vibratory capacities to produce melodies and harmonies via their specific tonal qualities. In the case of musical instruments which have embraced technology, the premise of human physical manipulation has been maintained. In the world of pop music, the instruments primarily used to create music are computers, tablets and smartphones, substitutes for the classical guitar (Neill, 2002). Could these be the new instruments of the 21st century?

> I can affirm that digital technologies have a voice in the same way as traditional musical instruments do. Considering that in the case of digital instruments, which are processed by general purpose computers, each interactive system has its own personality. (Tanaka, 2006, p. 270)

Organology, according to the dictionary of music (Borba & Lopes-Graça, 1958, p. 320), is the "science of musical instruments and their classification, tonal specification, resources, etc.". It is important for any musician to have in-depth knowledge of this area, but it is essential for composers, because in principle they can compose better for a certain instrument if they know its possibilities and limitations.

Tanaka (2006) introduces us to the family of sensor instruments, which, like the family of stringed or wind instruments (described simply and aware that these families may be subdivided, for example into plucked and rubbed instruments, and even renamed by other authors like von Hornbostel and Sachs, 1961), have a common element, in this case hand gestures which feed into a movement sensor and digital synthesisers (on the computer). The author argues, however, that each of the instruments has its own musical identity, with distinctive characteristics, like the violin and cello in the family of stringed instruments. So these instruments can be better understood if their particularities (idiomatic writing[3]) are taken into account, and thus familiarising listeners to these sounds so that the musical forms and instruments are understood (Tanaka, 2006). The most interesting fact here is precisely that this example provides further evidence that music and music-making is constantly changing and being redefined. We support the idea that academic training should open students' horizons with regard to this, in order to spur innovation and creativity and of course, along with this, encourage an academic discourse on music that is more receptive to the innovations which proliferate daily. However, it can't be said that universities are not open to technological advances. For

[3] "In music, what identifies an idiomatic approach in a work is the use of particular conditions of the means of expression for which it is written (instrument/s, voice/s, multimedia or mixed). The conditions provided by a vehicle include aspects such as tone, register, articulation, tuning and expressions. The more a work explores aspects peculiar to a certain means of expression, using resources that identify it and differentiate it from others, the more idiomatic it becomes" (Tullio, 2005, p. 299).

example, ESMAE (Escola Superior de Música e Artes do Espetáculo) and ESML (Escola Superior de Música de Lisboa) offer undergraduate degree courses on music production and technologies[4].

It is a fact in electronic music that the computer is the instrument of choice (Reynolds, 2007). Its possibilities in the area of sound and music has brought new possibilities for performers. This is the opinion of Garnett (2001), in an article on the aesthetics of interactive music, which talks about the computer's capacity to become an extension of the performer, insofar as it can process the sound and give it new textures in real time, amongst other things. The author highlights this point – the integration of the machine in human existence, as a driver not only of technique but also of human expression. For Garnett, the machine/man or machine music/human music dichotomy is no longer very relevant and, in his view, we should accept technology as an integral part of our lives in every way, as younger generations do.

In the case of EDM, one of the instruments commonly used is the sampler – a software or hardware device that stores samples. According to Rodgers (2003), sampling (the manipulation and mixing of samples to create new rhythmic or melodic patterns) is the creative process on which EDM composers spend most time (around 50%) until they have finished each work. This device (the sampler), as the author notes, has blurred the barriers between what is, and isn't, considered to be a musical instrument. He argues that traditional instruments (violin, trumpet, etc.) are audibly limited due to their physical properties. A violin will always sound like a violin, while a sampler can reproduce an infinite range of sounds and is primarily limited by factors such as storage capacity, electrical current, and so on. Rodgers notes that, like violinists who prefer to play a Guanierius rather than a Stradivarius, there are composers who opt for different samplers, depending on what they consider to be best for their music.

So another of the ambiguities that surround EDM relates to the instruments used. It can be difficult to give a perspective on this issue, since the respective concepts and definitions quickly become outdated. Issues such as the conceptualisation of the instrument, which as we see in the case of EDM can be very distinctive, are essential in the academic discourse on music, otherwise instruments such as the sampler or even musical instruments that only exist in the virtual world, would simply be considered to be tools (Tanaka, 2006). This is because they are thought of as something which improves our abilities and possibilities in certain activities, while the musical instrument is improved not for practical reasons but for expressive reasons (to produce sound with more quality, for example). For Tanaka, the question is about understanding whether the software was created to optimise an existing musical world or if this musical digitalisation alone has artistic potential. One thing he is sure of: the technological possibilities have democratised the creative process, implying redefinition of the musician. Another aspect that seems relevant to us is that the non-acceptance of new instruments will hinder, at least in an academic context and the training of musical students, the crossover between traditional and "non-traditional" instruments. This could result in fresh knowledge, new artistic currents or new performance possibilities.

[4] Our future research, as part of a PhD in Cultural Studies, will examine how far EDM is included in these courses.

In terms of the musician, EDM has also contributed to a new definition. For Boia, Ferro and Guerra (2010), the DJ has a relevant role in proliferating new sounds. Musical production is handed over to a "team" who work together for various reasons (music industry links to the music composers/producers, for example), creating a key union which in our opinion characterises the creative and compositional process of electronic music. However, the traditional methods of musical learning are not necessarily in tune with new educational contexts, especially in terms of the inclusion of new musical practices and instruments spawned by technological progress (MacCutcheon et al., 2016). Research on the practices of DJs at academies has been little studied, suggesting there is still much to be done in this field (MacCutcheon et al., 2016).

MacCutcheon and colleagues (2016) in their study show that the participants (7 string musicians, 7 non-musicians and 7 professional DJs) admit that DJs can be considered musicians. One also stated that the DJ's mastery of technology could be compared to that of a pianist's mastery of the piano. Another compared the work of a composer, who uses the tones of traditional instruments, to that of a DJ gathering samples to create something new.

To the question of whether lessons on DJ-ing should be included in the formal curriculum, 62% said yes, 14% said it should be optional, 14% said they didn't know and 10% said no.

The opinion of the teachers on the workshops given by two professional DJs at secondary schools showed that initially they were all highly focused on the disadvantages of the practices and materials, but that, by the end, they had undergone a radical change. They found lots of positive points – such as creativity and the development of skills.

DJ-ing is often viewed as being a lesser art, notwithstanding Huq's study (2007) that showed otherwise. The author gives the example of a classically trained cellist who was challenged to perform as a DJ, and given four weeks to prepare. She concluded that, "the implication behind the acquisition of the skills necessary to mix recordings in time and simultaneously satisfy the audience was not 'as easy as it seemed'" (Huq, 2007, p. 97).

For Martin (2012), even the teaching of "erudite" electronic music, at least in the author's case (a music conservatory in China), has focused on characteristics such as duration and tuning, which makes sense in certain works, but neglects an understanding that goes beyond the boundaries imposed by the western musical tradition. The author argues that this situation will only be reversed when teachers have fully mastered the techniques and processes of electronic music composition.

> Without sufficient practical and conceptual understanding of the procedures, structures, meanings and purposes unique to electronic music, teaching will be dependent on premises derived from experience with tuning-duration models (acquired from performance and listening). (Martin, 2012, p. 128)

For Martin, one of the reasons for teachers' lack of training in this area is precisely related to the poor approach to electronic music in universities. It should be noted that

the author regards the concept of tradition not as a historically fixed entity but rather as open to confluence and transformation.

If there is much to be discussed on the issue of how electronic music is taught in curricula, there is even more to examine with regard to EDM. We think that this responsibility lies, indisputably, with the educational institutions responsible for training our musicians in Portugal. Farrugia (2012), for example, has researched the relationship between gender and technology in popular musical culture and concludes that men are much more highly represented than women. He notes, for example, that most DJs are men, as are rock stars, music producers, etc. This relates to socially constructed discourses on gender and technology, since technological skills have always been associated with masculinity (Farrugia, 2012). However, in pop music, many artists are women because, as Farrugia (2012) notes, quoting Lucy Green, singing is deemed to be a more feminine activity and so women are usually connected to the world of music, dance and singing. Women's relationship with technology is viewed as being passive by society, i.e. they are only seen as users (Farrugia, 2012). The inclusion of EDM in higher education could introduce changes into the social discourses on various subjects such as music, gender, power, culture, etc.

> We can say, conclusively, that electronic technologies and resources are becoming the new voices of popular culture. The expansion of electronic music and the aesthetic associated with it expresses itself in radical changes in the way we hear and enjoy music. (Boia, et al., 2010 p. 54)

We feel that musicians, music students, music researchers and others in academic training, in particular in higher education, should be open to these changes in the history of music and should rethink the musical value of "popular" practices and their contribution to musical literacy.

Between mainstream and underground

The final ambiguity we will discuss is linked to the polarity between mainstream and underground. We suggest that EDM, with particular emphasis in this article on the subgenres of *house* and *techno*, can be associated with both. The framework of its underground status takes us to its origins in the USA.

House music first emerged in Chicago in the 70s as an underground genre. Its name come from one of the clubs where it was played – The Warehouse (Reynolds, 1998). The club was initially frequented by gays, blacks and Latinos, and house music mixed together soul, R&B, funk, salsa and rock music with messages of love and sexuality driven by frantic and repetitive rhythms (Boia et al., 2010). Reynolds (1998) argues that house resuscitated dance music, changing its form, causing a sense of discontent via its intensified characteristics, such as extreme repetition, increasingly artificial sounds, and its close links to hedonism and drugs. House didn't establish itself as a separate genre but as an attempt to approach dance culture, which was dying, and which it resuscitated

by reusing and remixing it, to create a new approach (Reynolds, 1998). In house music, the composer has a producer who is responsible for much of the work, though the cult of image is rejected (unlike pop music). As a genre, it upholds values such as unity, resilience, pride as well as social alienation, deviant behaviour and drug use. Its development was primarily due to the involvement of the gay community which embraced it and to a certain extent turned it into the soundtrack for its political causes and social affirmation (Reynolds, 1998). According to Reynolds, house music provided a sense of communion and community for all those who were alienated due to their "sexually deviant" behaviour. It acted almost like a religion and The Warehouse, in Chicago, was its church. The short phrases included on house tracks, at least in its early days (1970s), conveyed civil rights messages (Reynolds, 1998).

In Portugal today, house music has a more heterogeneous audience, spanning several social strata but it is chiefly enjoyed by a young middle/upper class audience (Silva, 2005). According to Silva, the values associated with house music, revealed by the results of his study in the north of Portugal, are sexuality, fashion and sensuality. Participants were generally concerned about fashion and their enjoyment in being in a sophisticated environment. Another fact mentioned by Silva has to do with its widespread use in fashion catwalks, which underlines its links to a very different social class from techno. We therefore see that initially house music was considered to be a marginal and underground genre and was later appropriated by the dominant culture and became the image of that culture. By falling under the sway of the powers-that-be, it certainly helped the rights and affirmation of the marginalised communities associated with it, to gain greater social expression. Today, house music is not considered to be an underground genre when we talk of mass about "popular" cultural products. However, if we look at the world of musical higher education its pre-eminence is perhaps not so visible. In this context, house music can still be viewed as underground, judged by the insistence on "erudite" western musical patterns, as we mentioned in the introduction, and also by the results of assessing non-higher art education in Portugal. Some curricula have not been updated since the 1930s (Fernandes, Ferreira, Marto, Paz & Travassos, 2007).

Techno was another EDM genre which originated in Detroit, USA, made possible by the development of synthesisers, adopted as the instrument of choice (Boia et al., 2010). Techno first emerged in the Afro-American community and, unlike house music, focused more on individual musicians than clubs and wasn't so popular in the gay scene. Despite these differences, musicians of both genres have interacted from the outset.

It was directed at the dance floor, seen as a "reflection of post-industrial anguish motivated by harsher living conditions" (Boia et al., 2010, p. 51). Techno can be characterised by the use of artificial sounds, repetition, tonal gradation, an ambiguous structure and a mechanical sound (Boia et al., 2010). Generally, techno is even more rhythmic, minimalist and mechanical and doesn't have the joyful atmosphere of house.

According to Silva (2005), techno in Portugal is still associated with more disadvantaged social classes, as well as drugs and violence. This genre, like house, is a powerful physical experience in which people "dance with their eyes closed in mechanical, almost

aggressive movements, shaking their heads to the unceasing rhythm played by the DJ" (Silva, 2005, p. 65). According to the interviews conducted during Silva's research, it was discovered that what draws people to a techno rave is the power of the music, which is ideal for dancing and freeing the anger and frustration often felt as a result of their social condition. In techno's case, we see that its association with marginalisation and the underground has changed little and for that reason we don't expect it to achieve musical relevance at a higher level. But it can be seen that its associations as much with the mainstream as the underground stem from the social tensions and cultural relations that have nothing to do with the music itself.

Final considerations

In the introduction, we discussed the prevalence of "erudite" western musical forms on the curriculum that may still be present today. We also corroborated that the terms "erudite" and "popular" derive from social discursive constructions that may or may not be related to formal aspects of the music itself. As we have seen in the case of EDM, which is an autonomous musical style with well-delineated aesthetics and concepts, the scarce attention it is given in higher musical education in Portugal may relate to relations of power between the dominant culture and the dominated. The contributions of this genre to (re)thinking music per se and its role in society are unparalleled, marking a paradigm shift in this area.

EDM is surrounded by deep conceptual ambiguities resulting from the diverse contexts it covers and also, from the point of view of Cultural Studies, it may be considered a milestone in the resistance against the elitism of music and the powers that be. It is, therefore, an instrument of political and social discourse whose practices deserve the attribution of legitimacy and recognition.

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