

# BORDERLANDS: DUB TECHNO'S HAUNTOLOGICAL POLITICS OF ACOUSTIC ECOLOGY

— FEATURE ARTICLE —

ALESSIO KOLIOULIS

PARIS 8 UNIVERSITY (FRANCE) / SAPIENZA UNIVERSITY OF ROME (ITALY)

## ABSTRACT

This article explores the aesthetic, social and economic relationships between dub techno and urban space. Sketching out the neoliberal economic transition from the post-war economy to a post-Fordist society, this article lingers on dub/techno trends from four cities: Kingston, London, Detroit and Berlin. An archaeology of dub techno is reconstructed into four parts, each highlighting an affective relation, or “sound map”, between music and neoliberal economic production. Starting with the hauntological melancholia of London-based Burial’s music, this article traces the history and sonic networks of the dub techno diaspora, from Detroit techno’s city of urban decay to Berlin’s divided city. Finally, dub techno is narrated through a “borderland” mapped sonically between Detroit and Berlin, suggesting a futuristic politics of dub techno’s acoustic ecology.

KEYWORDS: dub techno, Detroit techno, dub diaspora, acoustic ecology,  
post-Fordism, neoliberalism

---

ALESSIO KOLIOULIS is a PhD candidate at Paris 8 University and Sapienza University of Rome. Alessio holds a BSc in Development Economics from the University of Florence and a MA in Social Anthropology of Development from the School of Oriental and African Studies. He is an editor for Millepiani Journal and Eterotopia France, an independent publishing company. Alessio works in the Programme Team at Stars Foundation. He lives in Brixton, London. <[www.millepiani.org](http://www.millepiani.org)>, <[www.eterotopiafrance.com](http://www.eterotopiafrance.com)>, <[a.kolioulis@gmail.com](mailto:a.kolioulis@gmail.com)>.

---

Drawing from Guattari's approach to ecology (1989)—where ecology must be analysed across its social, mental and environmental dimensions—this article explores the aesthetic relationship between dub techno soundscapes, the urban environment in which they proliferate and the socioeconomic aspects that surround dub techno production. Turning to the ancient Greek root of the word aesthetics, which means “to feel” (*aisthanomai*), I suggest that aesthetic relationships between the soundscape of a city and its acoustic elaboration can affectively articulate an artistic effort to reproduce the ecology of a city. Thanks to visual and music production software used in the creation of electronic music, soundscapes can be translated into urban cartographies, or sound-maps of the city, in which aspects of the city are captured and elaborated to express particular social and political affects. For example, Matthew Gandy (2014) theorises links between the soundscape of a city and its social and mental environments, starting from J. G. Ballard's novel the *Sound-Sweep* (1960). Gandy argues that Ballard's hi-tech dystopian landscapes are rooted in the continuum between technology and the body. The protagonist of Ballard's *Sound-Sweep*, Mangon, is a specialised technician working for a sound removal service. His duty is to recycle the noise dumps at the edges of the late-modern metropolis. As Gandy depicts, in Ballard's world the urban soundscape presents an “acoustically defined form of social stratification” (2014: 37). In a similar way to Gandy's description of Ballard's soundscape and following Mark Fisher's approach to hauntological music (2013; 2014), in this article I explore the archaeology of dub techno. By “archaeology” I mean a Foucauldian analysis of the present, tracing the history of dub techno backwards from its present phenomena to detect its patterns and contingencies—and how these impact upon current political issues. I call dub techno, the accumulation and stratification of dub sounds' techniques into techno's rhythmic components. The result of this articulation is treated firstly as an artistic expression of the distinct socio-political environments in which the two genres emerged separately. Secondly, the urban context of dub techno is analysed through the lenses of political spatial analysis.

Following Krims' suggestion that “urban ethos is thus not a particular representation but rather a distribution of possibilities” (2007: 7), I will first turn to Burial's acoustic interpretation of contemporary London, tracing Burial's “hauntological” music (Fisher 2014) through the dub diaspora to Kingston. I will then explore the rise of Detroit techno and how it is linked to hybrid forms of dub techno found in German producer Moritz von Oswald's music as Basic Channel. My aim is to map the capitalist transition to post-Fordist economies by exploring the relationship between dub techno and urban space, reflecting upon the hauntological sounds that encompass urban communities in Kingston, London, Berlin and Detroit. By doing that, attention is paid to trace part of the “old” and “new” struggles that are associated with the foundations of both dub and techno.

Borrowing from Simon Reynolds' definition of genre—a “semantic condensations of popular desire” (2013a: 666)—and furthering Fisher's “hauntological” interpretation of dub electronic music (2013; 2014), I define dub techno as a subgenre manifested by a sense of futuristic melancholia that incorporates urban soundscapes into electronic dub rhythms.

I argue that dub techno's *artificial suspension* is a sign of hybrid nostalgia toward the future that resonates in digitalized environments and reflects the aesthetic relations between dub techno soundscapes and urban space. With the reduction of public space and advent of telecommunications, global suburbs are trapped in a state of "connected suspension". Telecommunications connectivity has enabled the formation of virtual mobile networks that contribute to the erosion of Fordist society by further erasing leisure as distinct from work (van Veen 2010). The effects of connectivity have resulted in a state of "connected suspension" between past and future where the present is compressed and accelerated.

### LONDON: HAUNTING THE FUTURE

Simon Reynolds has compared the sound of London-based producer Burial to Ballard's dystopian cities, and defines Burial's debut album on Hyperdub, *Burial* (2006), as an audio essay about London's bygone "hardcore continuum" (2013a: 644). With this expression Reynolds indicates "a continuum of musical culture that emerged out of the British rave scene. . . . I call it Hardcore because the tradition started to take shape circa 1990 with what people called Hardcore Techno or Hardcore Rave" (Reynolds 2013b). Burial, born William Emmanuel Bevan, a London-based dubstepper and electronic music producer, achieved some fame when his debut album was nominated by several magazines, including *The Wire*, for album of the year (Fisher 2014: 101). Burial's innovative style hinges on a blending of syncopated sounds typical of dubstep music with bass frequencies that characterise deep house or minimal techno. His extended use of "crackles", a series of peaked and sharp sounds prolonged over dark background frequencies, suggests an attention to London's noisy soundscape, including the broadcasts of pirate radio. Further, Burial's slow tempo is condensed into a slow motion existence that resonates as a kind of techno existentialism against the pressures of urban life. Since 2005, when his first EP "South London Boroughs" appeared, most of his music production has been released through Hyperdub, the label created by Steve Goodman, a.k.a. Kode 9. With Hyperdub, Burial has released two albums, *Burial* (2006) and *Untrue* (2007), and eight singles and EPs, including *South London Boroughs* (2005), *Distant Lights* (2006), *Ghost Hardware* (2007), *Archangel* (2007), *Street Halo* (2011), *Truant* (2012) and *Rival Dealer* (2013). Other notable releases include the abstract tracks "Four Walls" (2011) and "Paradise Circus" (2011) in collaboration with Massive Attack, and a series of works with Four Tet and Radiohead's Thom Yorke, *Moth/Wolf Club* (2009) and *Ego/Mirror* (2011), both released on Text Records.

For a long time, Burial's identity was a mystery (Hancox 2013). Burial was often associated with other names, including British musician Kieran Hebden, a.k.a. Four Tet. Burial's anti-exposure attitude reinforced the ghostly sound of his music, in a similar fashion to Underground Resistance's faceless music. For Reynolds, the parallel between Burial's London and J.G. Ballard's dystopian city has been noticeable since the first EP *South London Boroughs* (2005). Burial admitted to testing the sound-sphere of suburbia by driving through London's southeast at night, calling this method "The Car Test" (Clark 2006). As Burial put it, "The Car Test started with me boring the fuck out of my mates,

trying to play tunes. The car test was ‘do they sound good on the car stereo at night time, driving through London?’ That’s ‘The Car Test.’ Some Detroit tunes have that too, that distance in the tune—the ‘thousand yard stare’ in the tune” (Burial, in Clark 2006). It is interesting here to point out how the relationship between the experience of machines (the car) and the production of electronic music is made explicit. In this image of London there is almost continuity between bodies and technology: urban life is a global experience through an embodied connection with the mechanical sphere. According to Reynolds:

yet in another sense Burial’s music, and dubstep in general, could equally be about any city anywhere. . . . Instrumental music goes international so much easier. Dubstep has a far better fit than grime with all those old nineties notions of techno as a post-geographical sound, a musical force that is actively deterritorializing and border-crossing (2013a: 644–645).

When downtempo is linked to syncopation, the result is yet another form of deterritorialisation, though this time not geographical but metaphysical. In the review of Burial’s production included in *Ghosts of My Life: Writings on Depression, Hauntology and Lost Futures* (2014), Mark Fisher describes the “hauntological” as an urban phenomenon of melancholia. “Hauntological melancholia” embraces multicultural identities and underpins the digitalization of the metropolis. For Fisher, examples of hauntological artists are Burial, William Basinski, the Ghost Box label, Tricky, The Caretaker, Mordant Music and Philip Jeck. What these artists have in common are sounds characterized by a deep sense of melancholia. However, Fisher’s hauntology is not melancholia per se. He argues that hauntology is neither the melancholia of the Left, in which left wing politics is attracted by the glorious past but fails to project itself into the future, nor Paul Gilroy’s “post-colonial melancholia” (2006), in which Fisher sees the contradiction of denying and, at the same time, calling for a multicultural identity.

Hauntological melancholia, on the contrary, keeps looking for the “modern ghost”, for changes and disruptive forces. Fisher points out that “faced with 21st-century music, it is the very sense of future shock which has disappeared” (2014: 7). Drawing from Derrida’s *Spectres of Marx* (1994), Fisher defines hauntology “as the agency of the virtual, with the spectre understood not as anything supernatural, but as that which acts without (physically) existing” (2014: 8). As Fisher puts it, “the music of Burial and of Ghost Box is haunted by a paradoxical nostalgia: a nostalgia for all the futures that were lost when culture’s modernist impetus succumbed to the terminal temporality of postmodernity” (2013: 45). This impotence of dealing with the future is haunted by the “abstract space-time of Capital” (2013: 46).

In 2006, when Burial’s homonymous debut album was launched, rave culture had in many ways been surpassed. As van Veen explains, under the pressure of what Deleuze called the “control society” (1992), the “disappearance” of raves in the UK throughout the 1990s coincided with the reemergence of corporate club culture (2010: 29–30). If rave culture embraced a sociality openly adverse to the “work ethic”, its precarious employment

conditions nonetheless led to the mutation of raves into a profitable clubbing activity (van Veen 2010: 30; 32). The “new cultural industries”, including clubbing, monopolised those communities that succeeded in the formation of creative spaces of dancefloor leisure. If “raving as activity blurs the line between work and play” (van Veen 2010: 31), the rise of corporate dance clubbing profits from exploiting the dissolution of these boundaries. Rave, in short, was already a ghost of its past when Burial encountered it.

Burial’s experience with raves came through his older brother: he had never been to a rave when he first heard rave hardcore, garage and jungle music. For Burial, raves meant an imagined escape from a life of offices, corridors and clocks. An escape, however, that was impossible to fully achieve. In Fisher’s text, Burial remembers one of his childhood dreams where he desires to be put in a bin, feeling warm and protected from the outside rain, away from the routine of an amorphous existence (2014: 108). Burial’s distinctive bass is a memorialisation of that episode. His soundscape is a womb and the correspondent sound-image of his tempo a map of suspended affections. His approach to space, in line with dance floor DJs, clearly stands at the opposite end of festivals’ “Spectacle DJ” (Rietveld 2013). Burial’s anxiety is diluted in a dub-heavy sound map. This suspension derives from the mourning of rave culture’s death, despite a desire for its resurrection. Unlike accelerated jungle, Burial’s dub bass is warm and downcast. Euphoria is only evoked and not released, suggesting a type of suspended pleasure. Voices are pitched down or up according to the gender of the singer, so that they sound angelic, ghostly, or demonic—hanged.

According to Fisher, the compression of the future marked the end of the post-war social consensus and the restructuring of capitalist society. This process had started during ‘80s Thatcherism, where attacks on the working class varied from cuts in benefits, housing and education to the demonization of unions and the right to protest. Fisher calls this period “the slow cancellation of the future” (2014: 6) arguing that contemporary music lacks a futuristic force. As information about the future has become an important commodity, future itself has been colonised by commercial forces. However, in contrast to Fisher, I would argue that the “withdrawal” from politics that characterised rave culture (van Veen 2010) had put clubbing culture to work on its own politics. Cognitive capitalism’s toolbox contributed to the mutation of rave cultures. A combination of technologies aimed at erasing the boundaries between work and leisure, characteristic of new modes of production, was at the basis of the co-evolution of rave and clubbing cultures. As van Veen argues, “it is this hybrid form of workplay which now becomes the general category of labour. That it appears ‘unreformable’ is all the more understandable given that work is simply no longer work, but a constitutive element of enjoyment (leisure)” (2010: 33). Following these dynamics, Burial’s depressive acceptance of the end of rave culture goes beyond mourning and finds in the ghosts of London a path against boredom and a life of order. In fact, in line with Guattari’s (1989) attempt to re-orient Freudian ghosts such as sexuality, childhood or neurosis, modern spectres should be seen in a futuristic and constructivist fashion, unfolding new possibilities, assemblages and subjectivities.

Through Burial's music, I have related the sound scapes of dub techno to its hauntological urban conditions. Turning to Guattari's (1989) approach to ecology, we can dissect Burial's London soundscape into three parts. The *mental* dimension is marked by the modern ghosts of hauntological melancholia. The future is lost, and it appears as a ghost of rave's past. The *social* dimension is characterised by conservative politics and its pressure to control desires and dampen alternative lifestyles. The urban sphere represents the *environmental* dimension where media and technology inform neoliberal conditions of workplay. In the following three sections I will explore the archaeology of dub with a similar approach, highlighting the material conditions in which dub techno genres emerge and how they link to their cities of belonging. In this way, I argue that dub techno soundscapes can capture living conditions aesthetically and, at the same time, propose and advocate for an alternative politics of the future. In so doing, I aim to pay attention to the relation between a politics of the future and sound-maps such as dub techno that depict the co-evolution between social machines and urban life.

### LONDON TO NEW YORK: THE DUB DIASPORA AND POST-WAR FORDISM

The Fordist era is characterised by large manufacturing plants employing a large base of workers, mass consumptions and high levels of public investment used to sustain the growth of an urban population (Sassen 2001). After World War II, countries such as the United States, the UK, France and Holland were in demand of cheap labour. The importation of Caribbean peoples was seen by governments as a valid solution to the labour shortage. The resulting exodus from the Caribbean to the UK and the US started in the late '40s: Puerto Ricans, Surinamese, Dutch Antilleans, Martinicans, Guadeloupians and West Indians filled low-paid sectors across the West. Compared to their counterparts with similar socioeconomic backgrounds, Jamaican migrants tended to be more skilled, better educated and from urban centres. There were also other substantial differences between these communities, for example, in what Grosfoguel calls the "modes of incorporation" of Afro-Caribbean populations in the new labour markets of their country of destination (1997: 36). In France, Caribbean migrants were almost entirely absorbed by the public administration, while in the UK and the US, migrants were employed in labour intensive sectors like manufacturing. For most of the second half of the twentieth century, the relation between net migration and unemployment rates was negative. Between 1955 and 1974, there was a positive relation between employment and migration rates (Peach 1991). Industrial cities like Birmingham and London in the UK or Detroit and New York in the US attracted large numbers of migrants.

In *Remixology: Tracing the Dub Diaspora* (2014), Sullivan investigates the cultural bridges between Kingston's sound system culture and the Caribbean diaspora in New York, London, Bristol, Berlin and Toronto. Of these channels, the Kingston-London axis was of particular importance. Thanks to the 1948 open-door policy, through which people of the Commonwealth could obtain British nationality, the Jamaican sound had a network for the movement of cultural goods. As Sullivan reports:

It has been estimated that by the late 1950s there were already around 50 basement clubs in south London managed by West Indians. These venues—particularly the illegal blues dances—were of inestimable values as sites of cultural expression, social cohesion and autonomy for the Afro-Caribbean community, as well as for the preservation and dissemination of Jamaican music in the UK (Sullivan 2014: 58).

At the same time, the Jamaican sound was developing with particular traits. The rise of rock-and-roll in the U.S. in the late 1950s meant a shortage in the supply of tunes for Kingston's sound system scene. In need of new tunes and with limited recording facilities on the island, Stanley Motta's studios and radio stations like RJR, JBC and Federal started to press recordings onto dubplates. These were subsequently tested in dance halls to verify whether it was worth cutting these dubplates on expensive vinyl. By the mid-1960s, the Jamaican recording industry became self-sufficient. Two- and four-track recorders were installed. Proto-dub instrumentals were cut from other popular tracks. As Sullivan indicates, "it soon became clear that these dub versions had an economic advantage, insofar as they allowed different songs to be created with the same rhythm at no extra costs" (2014: 26). Thanks to the expansion of the sound system culture in the UK, to emulate the original dub sound, London clubs were importing both American R&B and Jamaican records directly from Kingston. It meant that the music supply chain was able to demand higher prices in order to sustain local production. From the early '60s until the mid '80s, London and other British cities saw the growth of sound systems. Among the first visible systems in London were Coxson, Fatman and Jah Shaka. The latter migrated from Jamaica to southeast London and became a "one-man-band, choosing his own records, controlling the equipment and deejaying when necessary" (Sullivan 2014: 64). Jah Shaka later set up his own Foundation with the aim of providing financial and technical support to dub projects in Jamaica, Ethiopia and Ghana. Yet Shaka was also the UK's first digidub pioneer. As Sullivan reports, "rather than working with musicians to provide source materials as the original Kingston engineers did, he built his early dubs from the 'ground up' using drum machines and synths in early records" (2014: 66).

The Afro-Caribbean diaspora populated the metropolis' suburbs. It is worth comparing how mass immigration impacted London and NYC throughout the '50s. Some white members of the working class first responded with fear, subsequently with resentment. After years of racialised tension, the suburbs experienced sporadic yet intense levels of violence. As Sassen reminds, "the radical transformation in the city's demographic composition altered the meaning of public housing . . . Segregation in the city increased immensely (2001: 253). In West London, for example, Caribbean migrants experienced a degree of racism that was unknown at home. In 1958, the infamous Notting Hill race riots lasted for several days and saw Teddy Boy mobs attack black residents in what Londoners call the "forgotten" riot (Olden 2011). However, the response to this infamous event was about to mark a watershed in London's music history. Claudia Jones, the communist journalist who set up Britain's first black newspaper, the *West Indian Gazette*, launched the first edition of the Notting Hill Carnival as a community response to these attacks. Born in colonial Trinidad, having lived as a child in Harlem, New York, and deported in 1944 to

Britain for her activism as a member of the Communist Party of the USA, Jones called for a “tricontinental, internationalist radical politics [in] the heart of Britain” (Whittall 2014). With the Notting Hill Festival in London and the Paul’s Festival in Bristol, a sense of community was established through music production and the sound-system culture. However, Jamaican music wasn’t new to London. Many clubs were formed in the 1950s where members of the West Indian diaspora could enjoy clubbing and even religion without fear of racism and repercussions (Beckford 2006). What is worth noting here, however, is that while clubs were countercultural spaces that formed an underground web, the Notting Hill Carnival affirmed DJs and sound systems as part of London’s music culture.

Britain was not the only country Jamaicans emigrated to. The US was a popular and closer destination, especially after the government loosened restrictions in the ‘60s through amendments to the Immigration and Nationality Act imposed a decade earlier. Big cities on the East Coast were the preferable choice, with NYC, Philadelphia, Washington and Miami at the top of the list. Jamaican migrants in London and New York had a very different experience of assimilation. As Foner puts it, “being submerged in a wider African American community has affected West Indian New Yorkers in ways that their London counterparts simply do not encounter (2005: 113). Jamaicans in the US represented a small percentage of the overall black population; while in the UK Jamaicans and West Indians represented one of the first black communities. The multiethnic composition of American society helped Jamaicans to more rapidly integrate into the Afro-American population (Foner 2005: 109–10). Differences in the ethnic composition of the population were coupled with the development of patterns of migration. As Terry-Ann Jones (2007) summarises, there are several models explaining stages of migration. First, “the neoclassical economic approach to migration is based on the assumption that migration is a response to global differentials in labor supply and demand” (2007: 21); second, “according to the network approach to migration, migrant networks promote continued international movement” (2007: 24); and finally, “cumulative causation . . . suggests that migration affects the societies of both the origin and destination countries in such a way that future decisions to migrate are dependent on past and current patterns of migration” (2007: 27).

A good example of the latter pattern of migration is Lloyd “Bullwackie” Barnes. Barnes was an occasional singer and sound engineer from Kingston. When he realised that his career was stalled in Jamaica, he decided to join his mother in New York. Barnes found a fertile environment in the house parties around Brooklyn, Queens and the Bronx. Bringing “the reggae Motown [to] the Bronx” (Sullivan 2014: 94–5), Barnes later formed the Bullwackie All Stars, featuring collaborations with high-profile Jamaican artists such as Horace Andy, Wayne Jarrett and Jackie Mittoo. Wackie’s first production, *Dub Unlimited* (1976) was followed by *Creation Dub* (1977) and *Nature’s Dub* (1980). After an initial success, the Wackies almost disappeared from the scene. It was only in the ‘90s that Barnes and his stars remerged thanks to Basic Channel, the label and dub techno artist identity consisting of German duo Moritz von Oswald and Mark Ernestus (Sullivan 2014: 95). Overall, in a different fashion than in Britain, the dub diaspora in the US encountered

different genres such as hip-hop and disco. This encounter produced new dancehall styles that merged Kingston's scene with Afro-American music.

In order to posit the "dub diaspora" from Kingston to London and New York, I have briefly reconstructed the Fordist socioeconomic basis for the migration of Jamaican populations. I have highlighted racialised tensions in London to show the political relevance that dub and sound systems had on the modes of integration of West Indian communities. In the following section I look at racialised tensions and labour conflicts in Detroit. In so doing, I analyse the second generation of Detroit techno producers through ways in which the urban environment is reflected in their music production.

### DETROIT TECHNO AND THE TRANSITION TO POST-FORDISM

The "golden age of capitalism" or "long boom" eventually stopped producing positive effects on growth rates. The 1970s recession brought to an end the post-World War II economic "miracles" in countries like West Germany, Italy, France and Japan made possible by Keynesian approaches to economic policies. As Naomi Klein puts it "the Keynesian revolution against *laissez-faire* [capitalism] was costing the corporate sector dearly. Clearly what was needed to regain lost ground was a counterrevolution against Keynesianism, a return to a form of capitalism even less regulated than before the Depression" (2007: 56–7). The new neoliberal ideology promoted by the economists of the Chicago School, which emerged politically as Reaganomics in the US and Thatcherism in the UK, took the form of cutting social benefits and deregulating markets. The so-called Fordist paradigm, with its mass-scale production and labour migration, was turned over by a new set of neoliberal policies. In part, this change of paradigm was due to innovative solutions in the field of technology and robotics. With workers demanding higher wages, factory managers had to look for new solutions to organise production. Thus, in a decade of struggles and changes, and with opportunities to relocate production to developing countries, the industrial society was entirely re-shaped during the 1970s. Detroit, the heart of the Fordist industry, is paradigmatic of this shift in global production. The urban decay exemplified by Detroit is directly linked to the dismantling of Fordist production.

Moreover, working class, urban white racism wasn't particular to Britain. In the early 1960s, black workers employed in Detroit's auto factories started to raise their voices by denouncing the double exploitation under which they were forced to work. On the one hand, they were subjected to longer shifts, more dangerous tasks and lower wages. On the other hand, the United Auto Workers union (UAW) remained silent to their requests (Alexander and Rucker Jr. 2010: 858–9). Thus, only months after the Detroit 1967 riots, black industrial movements formed the League of Revolutionary Black Workers. The league expanded in all major factories, including Chrysler, Ford and General Motors. Newsletters started to circulate in factories with the aim of building political consciousness. In-plant and out-plant strategies were promoted, forming ties with journalists, students and their communities. A series of wildcat strikes hit major industrial cities. One year before the establishment of the League, the Dodge Revolutionary Union Movement (DRUM)

started using bongo and conga drums in strikes to draw attention to their cause (Dillard 2007). In this scenario, Motown Records was targeted by groups such as the DRUM and the *Inner-City Voice*, a popular magazine connected to the politicisation of Afro-American workers. In their views, Motown Records “was more interested in its own profits and was far removed from the struggle to improve economic opportunities for workers in Detroit and elsewhere” (Vincent 2013: 176). However, Motown faced a destiny similar to UAW, when Eddie Holland, Lamont Dozier and Brian Holland, known as the H-D-H team, left the label into a dispute over profits and royalties.

Detroit’s implosion enabled a process of creation that is well reflected in what music historian Dan Sicko defines as “the beauty of decay” (1999: 59). Hence, it becomes crucial to describe some of the socioeconomic elements that characterised the imagination of the first and second generation of Detroit techno DJs and producers such as Jeff Mills, Juan Atkins, Kevin Saunderson, Derrick May, Carl Craig and Mad Mike. Firstly, it is important to look at the relation between techno music and urban space. As Vecchiola recounts, influential radio DJ “The Electrifying Mojo” “refused to recognize generic borders, dispensing with the notion that city residents would only tune in for stereotypically ‘urban’ music” (2011: 100). Mojo’s stance of “refusing generic borders” allows for an understanding of the musical and social context behind the rise of Detroit techno. A typical Mojo night had a mix of spaceship effects, an hour of new brand music, half an hour of slow jams, the Midnight Funk Association call-to-order (where the entire city was asked to signal its presence by turning up lights, honking horns and dancing), regular funk bands such as Parliament/Funkadelic, and an artist vs. artist selection, all of which was often followed by a live mix from a guest DJ. The variety of Mojo’s shows unified different genres in the culture of the mix. For listeners, “tuning in” was part of a process of identification and sense of belonging to the city.

On the contrary, the spatial configuration of industrial cities like Detroit was jeopardising social ties and accumulating disparities. As Saskia Sassen has shown, in global cities such as London and New York, under the increasing pressures of new modes of production, the divide between suburban middle class and low-income families of the inner city represented one sign of geographical inequality (2001: 250–53). With one class taking advantage of remote-work, office jobs were created in the suburbs in stark contrast with the centralisation of production in the urban centres. Simultaneously, the automation of production substituted factories with mechanised plants. Hence, the rationale behind post-war urban development was obsolete. Economic and technological factors re-configured the sociospatial organisation of urban landscapes.

Haunted by its past glory, and with a lack of teen dance clubs in the suburbs, Detroit’s youth had to create its own nightlife. As Sicko states, “given the disconnectedness this generation had with its own city, the importance of self-identification makes a lot of sense” (1999: 40). As a result of this process, the city was divided between East and West, “jits” and “preps”. However, one factor that in the early 1980s reunified the city was Eurodisco, known in Detroit as “progressive”. Partygoers started to appreciate Italo-disco, a style of

electronic disco heavily influenced by Italian disco producer Giorgio Moroder. Further, according to Sicko, Italo-disco formed some of the basis for the Detroit techno blueprint when Paul Lesley and Sterling Jones, a.k.a. A Number of Names, “would work two copies of Kano’s *Holly Dolly* (1980) repeating the spare intro over and over again and doubling up the chorus” to create the celebrated track *Sharevari* (1981). Thus “the connection between Italo-disco, techno and Detroit’s high school sophisticates can all be heard in this one single” (1999: 52–3).

In the meantime, techno’s future artists were witnessing an attempted renovation of Detroit. For a decade, the city centre had been forgotten by the dynamics of the East/West divide. Through a sort of social osmosis, the crowds in the East and West Detroit started coming together again in the mid-1980s (Sicko 1999: 55). Furthermore, attempts to revamp the downtown core vanished in what we could call a “failed” gentrification during which the New Detroit failed to come to terms with its past. Lack of investment and a decreasing population contributed to a stasis in the redevelopment of the city. The deep affinities between techno pioneers and this ghostly environment have been emphasised by Juan Atkins, John “Jon 5” Housley and Richard “3070” Davis, a.k.a. Cybotron, with their *Techno City* (1984). In this classic EP, Davis and “Atkins’ vocals are processed to sound ancient and mysterious, echoing the old soul of Detroit, while his lyrics welcome visitors to the city” (Sicko 1999: 63).

Pope (2011) has argued that the second generation of Detroit techno producers confronted the dystopian experience of the dismantling of the Motown city through music. In addition, according to Pope there is a profound leap between *Sharevari* (1981) and Cybotron’s *Alleys of Your Mind* (1981). While the former celebrated the old Detroit and its consumeristic ideology, the latter displayed a turn and a break with the past (Pope: 2011: 34). Detroit techno metanarratives reveal a deep and affective connection with the city and its failed future politics that stress the hauntological ambiguities of Detroit’s dystopian/utopian techno sound. As Pope puts it, “throughout its ‘history’ techno warns of our technological future—a future which is felt, according to a dystopian outlook, to be already, irrevocably, ‘here’” (2011: 38).

The second socioeconomic factor in the evolution of Detroit techno is the new relationship established between artists and machines. On the one hand, the advancement of mechanisation and robotics contributed to the collapse of the Fordist society. However, on the other, the children of factory workers were increasingly fascinated by the alternative uses of machines. The “manufactory” and “futuristic” elements in the collective consciousness of the time remains one of the most powerful elements of Detroit techno. In the past 35 years, examples can include—among many others—Cybotron *Cosmic Cars* (1982), Mike Banks a.k.a. Mad Mike’s *Hi Tech Dreams / Lo-Tech Reality* (2007) and Jeff Mills’ *Flying Machines* (2012), all of which define Detroit techno’s ambiguous, dystopian/utopian hauntological symbolism. Detroit techno exhibits an ambiguous hauntology because it has yet to dematerialise into a hauntological metaphysics as described by Fisher (2013). Here the ghosts of the city’s past are still very material, as seen in the Mad Mike record label for *Hi-Tech Dreams / Lo-Tech Reality* (2007)(see Fig. 1).



FIGURE 1. MAD MIKE *HI-TECH DREAMS / LO-TECH REALITY* (2007).

It is in the interspace between the past, its present form and the on-the-ground dreams of a better future that techno aesthetics is politicised. The ambiguous utopian/dystopian yet futuristic aesthetic of second generation Detroit techno artists has the ability to discover an affective relation between urban life and new forms of capitalism. As Pope asserts, “Detroit . . . cannot be meaningfully framed (off), and, as such, it reminds one of the ontological oblivions of late capitalism while also revealing the subjective mode appropriate to this encounter: techno survivalism” (2011: 41). Pope’s argument is particularly strong at describing the materialistic stances of the desires incorporated in the sound and aesthetics of Detroit techno. A good example of such materialistic desire is embedded in the ambivalence towards technological development and their use of antiquated tools to showcase an intrinsic cyberpunk spirit (Pope 2011: 38). This is perhaps another cause of the reason why Afro-American Detroit artists have been interpreted through the lenses of Afrofuturist narratives (see van Veen 2013).

Drexcia—formed by Gerald Donald and James Stinson in 1992—produce electro music that is deeply connected to an Afrofuturist “haunted future”. For example, Drexcia’s “aquatopia” links with the Black Atlantic through label artwork, lyrics and underwater electro sounds on all of their major works, including *Bubble Metropolis* (1993), *Aquatic Invasion* (1995) and the two albums *Neptune’s Lair* (1999) and *Harnessed the Storm* (2002). Drexcians are the mythical descendants of Africans thrown overboard during the transatlantic crossing (Womack 2013: 70). By sounding-out this Afrofuturist aquatic space, the duo creates a new dystopian battle tale in which Drexcian battalions are at war against today’s “reality programmers”. While simultaneously addressing the slave trade through a

radical reimagining of its lost descendents Drexicya's "sonic warfare" reminds its listeners—particularly Afro-American Detroit youth—of present conflicts. In a similar way to van Veen's comparative analysis of Mills' space-faring alter-ego "The Messenger" and Janelle Monáe's android alter-ego, "Cindi Mayweather":

Such identities . . . often lend themselves to a movement that exceeds their characterizations as a stage personae, suggesting a *becoming* that transform the coordinates of subjectivities. Thus we need to ask whether such identities—Afrofuturist androids, aliens, cyborgs, etc.—"represent", in an allegorical mode, conditions of Afrodiasporic experience ("blackness") or whether Afrofuturism is capable of unhinging allegorical referents to humanist bodies and terrestrial markers of difference, thereby developing autonomous forms of becoming and thought . . . (van Veen 2013: 8).

For Detroit techno artists, the "becoming future" is expressed by a creative continuum between bodies, machines and their environment that ruptures with the present. However, the solution is neither homogenous nor harmonic. On the contrary, it aims at relocating the disjuncture of the late capitalist time-space and workplay in a different dimension. By collocating new forms of subjectivities in new temporalities, this post-human/cyber-spirit is able to "conquer" time: a crucial resource to think and oppose lo-tech reality with hi-tech dreams. As Eshun reminds, today "the powerful employ futurists and draw power from the futures they endorse, thereby condemning the disempowered to live in the past. The present moment is stretching, slipping for some into yesterday, reaching for others into tomorrow" (2003: 289). In the search for new becomings, techno artists create new subjectivities; a sign of rupture with a stretched present and the rejection of past identities.

Drawing from Guattari's "polyphonic subjectivity", Trace Reddell has conveyed an interesting perspective on Afrofuturism and techno music. He argues whether "Afrofuturism can include works and artists influenced by Africa though not of African descent" (2013: 90). This argument has the ability of going beyond racialised identifications and the risks implied in interpreting Afrofuturism as an authentic cultural form. Reddell welcomes what he calls a "technocultural strategy that deconstruct racial myths of identity, appropriation and exploitation" (2013: 90). He depicts this strategy from the observation of Juan Atkins' multiple machinic identities and Guattari's "machinic dimensions of subjectivation" (2013: 94). The co-evolution of "humans" and "machines" in Detroit is a fundamental trait of Detroit techno music production. Casting away material goods and services, capitalism turned to the "production of signs, of syntax and of subjectivity", which became strategically important for the reproduction of power, control and capital (Guattari 1989: 137).

By paying attention to the social, mental and environmental dimensions of urban living, new techno subjectivities create alternative sound-maps of the city. Two effects can be traced from Detroit techno's response to post-Fordist society. First is a creative approach to the post-Fordist transition to an ambivalent technological environment; and second is an indissoluble affinity within music productions between politicised social conditions,

cognitive possibilities and environmental settings. In the next section these two effects are discussed together, highlighting the excess and overflow of this encounter through the hybridism of dub techno acoustic ecology.

## BERLIN: DUB TECHNO ACOUSTIC ECOLOGY

With post-Fordism demolishing the factory “walls” and nurturing the birth of the internet economy, Western economies developed global markets in which finance and media blended together. High return investments were made possible by new financial markets, which, at the same time, were built on highly sophisticated machines. Technology was not only responsible for the collapse of the socialist bloc—unable to keep up with the technological revolution—but was also changing the settings for new subjectivities, in the form of remote work and increasing time spent interacting with communications technologies such as mobile phones and computers. In the aftermath of the fall of Berlin Wall in 1989, the German capital’s social space was sharply divided into two spheres: businesses, shops and universities in the West and public housing in the East. Contrary to what politicians promised, foreign companies that were supposed to invest in the Eastern part of the city never arrived. Thanks to this vacuum, Berlin’s youth and creative class profited from a large amount of empty buildings. Clubs and art mushroomed as artists rushed in to occupy the abandoned central district of Berlin, the former “no-man’s land” known as Mitte. At the same time, and unlike other countries in Europe, Germany did not experience immigration from the Caribbean Islands. Instead, Germany was a popular destination for Southern Europeans, Turkish migrants and South-East Asians (Sullivan 2014: 168).

The link between the city and dub hinged on a particular encounter. Throughout the ‘90s, Tresor and the Hardwax record store—with Tresor originally located in the abandoned Wertheim department store in Mitte—became Berlin’s electronic music hubs. Since Hardwax opened in 1989 it has been owned by Mark Ernestus, who took an early interest in Detroit techno. It is at Hardwax that Ernestus met Moritz von Oswald, a respected studio musician and multi-instrumentalist. Their first EP as “Maurizio”, *Ploy* (1992), was released under their label “M” and featured a remix by Detroit techno duo Underground Resistance (“Mad” Mike Banks and Jeff Mills). A year later, in 1993, Jeff Mills remixed Maurizio’s *Enforcement*, this time released under the name Cyrus. At the same time, Tresor was contributing to the spread of the Detroit sound by releasing Underground Resistance’s *Tresor II: Berlin Detroit—A Techno Alliance* (1993) compilation. During this period, the duo opted for Detroit mastering plant the National Sound Corporation (NSC) to press tracks like Basic Channel’s *Lyot RMX* (1993), *Phyllys Trak* (1993) and *Quadrant Dub* (1994). All of these records are heavily influenced by dub, despite “Ernestus and von Oswald still want[ing] to classify the music as minimal techno” (Twells 2014). The tension between minimalism and dub produced the prototypical dub techno genre.

From 1993 to 1995, Ernestus and von Oswald operated as “Basic Channel”, revitalising von Oswald’s passion for dub. At the same time, the duo set up the mastering and cutting

facility Dubplates and Mastering, based in Kreuzberg, Berlin. Basic Channel's galaxy produced several sublabels, from Basic Replay, to Burial Mix, Chain Reaction, False Tuned, Imbalance Recordings, Main Street Records, Maurizio and Rhythm & Sound. Basic Channel released experiments from Vainquer, Substance and Monolake (Robert Henke and Gerhald Behles) through Chain Reaction; and dub-influenced music with Jamaican artists on Basic Replay.

Increasingly unsatisfied by the popularisation of Berlin's club techno scene, Ernestus and von Oswald sought new, revolutionary sounds. In 1996 the duo formed the label Burial Mix to finally accost dub and reggae with house and techno, enlisting Tikiman (Paul St. Hilaire), a vocalist from the Dominican Republic who performed with the Berlin-based reggae group Livin' Spirit. Over time the "archaeological work" (Kopf 1996) that the duo applied to the acoustic relation between dub and techno changed. What defined the dub techno blueprint was perhaps the ability to shape a never-ending relationship between the two genres. For example, Sullivan (2014: 172) writes that "rather than their former approach of applying dub's spatial aesthetics to techno, the duo reversed the process and applied techno's digital production values to dub, creating a spaced-out, 'hauntological' sound" for *Never Tell You* (Burial Mix 1996). Another example of techno's application to dub can be found in Barnes "Wackie's" resurrection. Barnes appeared alongside Rhythm and Sound in 2003, playing live at Francois Kevorkian's Deep Space night.

The successful experience of collaborating with diasporic Jamaican dub artists was followed in 2005, when Ernestus and von Oswald released *See Mi Yah* (Rhythm & Sound 2005), an album that features collaborations with reggae vocalists—some in Berlin, others in Jamaica—including Willi Williams, Jah Cotton, Freddy Mellow, Rod Of Iron, Sugar Minott, Koki, Bobbo Shanti, Walda Gabriel, Ras Donovan and Ras Perez. The album is characterised by tunes individually arranged and composed into a strong 46-minute suite of dub techno. More recently, the experimental project entitled "The Moritz von Oswald Trio", formed by Max Loderbauer, Moritz von Oswald and Vladislav Delay, produced the first, studio-oriented, electronic music approach between the two genres, playing dub techno "live" in festivals and clubs using a blend of live acoustic instrumentation and electronic hardware. In these occasions, with one of the latest being at Bloc Festival in March 2015, Moritz von Oswald and Max Loderbauer, the two permanent presences of the Trio, presented a set with new member Tony Allen, Fela Kuti's former drummer. In the new formation of the Trio, Tony Allen plays drums, Max Loderbauer plays synthesizers while Moritz von Oswald occupies the centre of the stage with percussion-sequencing drum machines and additional electronics. As Allen puts it: "The programmes have to be dealt with first—we're always searching for something, but it's not improvising—it's more like a feeling that we're trying to get to" (Smith 2015).

Where is the Trio trying "to get to"? It could be argued that the final dub techno artefact is a recomposition of the roots, as if below the surface of electronic development from dub to techno there is an essential pattern: that of technics. It is here, at this point, where the archaeological intersects the aesthetic, that acoustic political ecology emerges. *Acoustic*

*ecology* amplifies the emergence of the affective relations between bodies, tools and artefacts. When new modes of hauntological and techno subjectivities manipulate their heritage through hybrid creations, they facilitate the exposure of a continuum between space and its specific and contingent social activities.

## BORDERLANDS: BERLIN TO DETROIT

I would like to close by analysing the album *Borderland* (2013), composed by Detroit’s Juan Atkins (Model 500) and Berlin’s Moritz von Oswald (see fig. 2). The album appears twenty years after *Tresor II: Berlin Detroit—A Techno Alliance* (Various 1993). At the acoustic level, *Borderland* combines the sound scape co-evolution of the two cities, Berlin and Detroit, which have been closely related not just for their “techno alliance”, but through how each has respectively embraced creativity as a response to neoliberal urban decay and renovation, suggesting a virtual bond between the two cities through dub techno. With *Borderland* the acoustic bond expresses proximity between techno artists from the two cities, demonstrating a similar affectivity toward a highly technical environment; a hope, perhaps, for Detroit and Berlin’s shared future. The signifier “Borderland” suggests the surroundings of the liminal environment, as dark as a nocturnal urban forest. Yet, it seems to advocate for a future politics—a utopistic escape from the current states of urban life, towards a world in which is possible to combine sustainability with technological development, suggesting a sophisticated aesthetics of urban nature. There are four tracks included in *Borderland* that outline this aesthetics of acoustic ecology. These are *Electric Garden*, *Electric Dub*, *Treehouse* and *Digital Forest* (Atkins and von Oswald 2013).

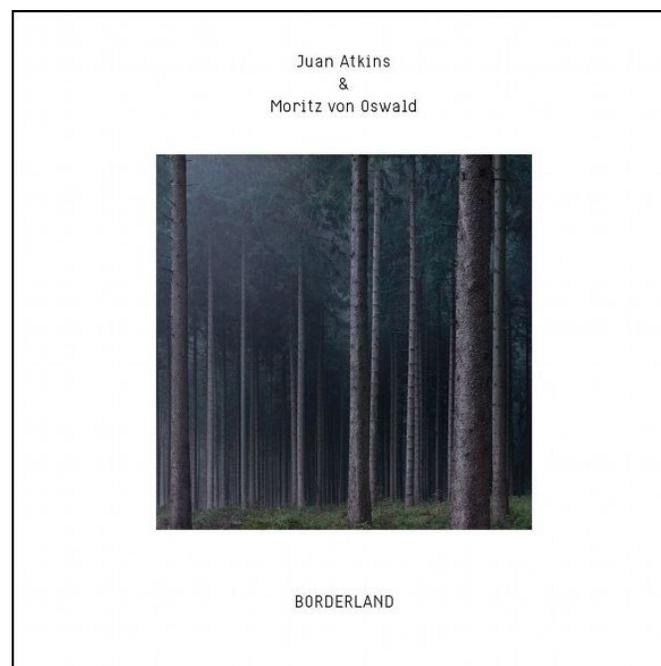


FIGURE 2. *BORDERLAND* (2013) COVER BY VISUAL ARTIST DELFINA VENDITTI.

In all of *Borderland's* tracks, the hybrid nature of dub techno is exposed by juxtaposing the digital and the natural world. The result is a collection of sound maps where forests, trees and gardens fade into wires, data servers and digital sounds. Electrified sounds are dubbed with mechanical chirping, evoking the idea that nature's body is mechanical and that all machines are primal. Further, the project seems to stress the need for sustainable urban environments; cities need a coherent vision between ecological and technological developments. The symbolic title of *Treehouse*, for example, illustrates a desire for utopic housing in techno-cities capable of satisfying the needs of urban dwellers. In a similar way, *Digital Forest* depicts the urban environment as a data universe. *Electric Dub* and *Electric Garden* resound as a tactic to awake the sleepy collective memory, conquering urban gardens and colonising the mentality of the city's dwellers with a new politics inspired by hi-tech ecology. The producers' social and mental environments remind us of images and experiences of decay, struggle and failed economies. The dialectic between ecology and technology seems to arise from an artistic preoccupation for suggesting visions of and for the future through dub techno.

Looking at Guattari's "manifesto" *The Three Ecologies* (1989), ecology is always entrenched across the social, mental and environmental dimensions. On the one hand, Guattari introduced Marxism into philosophy of mind and, as a result, re-interprets cognitive mechanisms as mental modes of production. These are performed by "social machines" that are key to our understanding of the social and mental environment. Machines are primarily social in nature and not technical, because the conditions and usage are organised according to the needs of society (Pearson 2001: 1363). Guattari argues that when we imagine a visual representation ("map") of these processes, we are producing cartographies. Depending on the nature of the surfaces (visual or acoustic), these maps represent a unique connection between what we feel (aesthetics) and our desire to materialise their existence (1989: 133).

If dub techno's socioeconomic environment is urban space and music affectively represents, through its sound map, the current socio-political realities of cities, *Borderland* well describes a situation in which techno's utopian ambitions are incorporated into the search for ecological solutions and their mutual co-evolution. *Borderland* is not a search for a lost habitat: rather, it suggests a hauntological escape from the present. If the modern ghosts of the crackle appears each time artists express the compression of the future, in the aesthetic of *Borderland* the political sensibility puts the feet on-the-ground and reterritorialises social desires in the sounding of dub. The materialist yet utopian desires expressed by *Borderland* in the combination of technology and ecology stands for a politics of acoustic ecology.

Interpretations of dub techno that fail to detect the symptoms of a politics of acoustic ecology risk disempowering its creative forces. Hence, at the symbolic and material level, dub techno represents the encounter between ecology and technics. Through a socioeconomic approach to the dub diaspora and the role of technology in modern life, dub techno can be seen as an attempt to ameliorate the experience of urban society's "suspended connectivity" and hauntological melancholy. It redefines in modern and artistic terms a never-ending

relationship between technologies, bodies and their environment through resounding dub. Tracing a line between the genesis of dub and techno music, I have claimed that this hybrid genre expresses a politics of acoustic ecology, suggesting the desire for a social impact that underpins the co-evolution of sustainable technology and urban ecology.

To conclude, I have tried to show how the archaeology and aesthetics of dub techno are combined to express the relation between nature and the city through acoustic ecology. In the first section, I have analysed ways in which post-Fordist capitalism has undertaken the seizure of futuristic politics. I have done so by stressing the hauntological melancholia of Burial's dub. Departing from the London soundscape, I then touched upon the dub diaspora and how the socioeconomic patterns of migration revealed an important vector of creative, musical resistance, through dub, techno and dub techno, against neoliberal ideologies during the post-war era. Turning to Detroit, I suggested that the formation of new subjectivities and mythological narratives provided a means of opposing the decay of neoliberal urban living conditions. Finally, exploring Berlin's dub techno through the dub techno of Moritz von Oswald and Mark Ernestus, and connecting to to Detroit's Juan Atkin's through a "borderland", I have tried to demonstrate that the artistic continuum that flows throughout dub techno "gets to" the roots of technological development through a politics of acoustic ecology. Through the lense of Guattari's ecology, I have proposed a political reading of dub techno that intersects heterogeneous fronts (subjectivities, urban decay, migratory patterns) to suggest the importance of the intersections between social, mental and environmental dimensions of urban electronic music.

## ACKNOWLEDGEMENTS

I would like to thank tobias c. van Veen for the extremely careful and constructive review and for the detailed suggestions for improving the piece. His dedication and professionalism motivated me profoundly and won't be forgotten.

## REFERENCES

- Alexander, Leslie M. and Walter C. Rucker Jr. 2010. *Encyclopedia of African American History [3 Volumes]*. Santa Barbara: Abc-Clio.
- Ballard, James. 2001 [1960]. "The Sound-Sweep" in *The Complete Short Stories*. London: Flamingo.
- Beckford, Robert 2006. *Jesus Dub: Theology, Music and Social Change*. London: Routledge.
- Clark, Martin. 2006. "Soundboy Burial". *Blackdown Soundboy*. <<http://blackdownsoundboy.blogspot.co.uk/2006/03/soundboy-burial.html>> (Accessed 17 June 2015).
- Deleuze, Gilles. 1992. "Postscriptum on the Societies of Control". *October* (59): 3–7.
- Derrida, Jacques. 1994. *Spectres of Marx*. London: Routledge.
- Dillard, Angela D. 2007. *Faith in the City: Preaching Radical Social Change in Detroit*. Ann Arbor: University of Michigan Press.

- Eshun, Kodwo. 2003. "Further considerations on Afrofuturism". *The New Centennial Review* 3(2): 287-302. DOI: <<http://dx.doi.org/10.1353/ncr.2003.0021>>.
- Fisher, Mark. 2013. "The Metaphysics of Crackle: Afrofuturism and Hauntology". *Dancecult: Journal of Electronic Dance Music Culture* 5(2): 42-55. <<http://dx.doi.org/10.12801/1947-5403.2013.05.02.03>>.
- . 2014. *Ghosts of My Life. Writings on Depression, Hauntology and Lost Futures*. London: Zero Books.
- Foner, Nancy 2005. *In a New Land: A comparative view of immigration*. New York: New York University Press.
- Gandy, Matthew. 2014. "Strange Accumulations: Soundscape of Late Modernity in J.G. Ballard's 'The Sound-Sweep'". In *The Acoustic City*, ed. Gandy, Matthew and BJ Nilsen: 33-41. London: Jovis.
- Gilroy, Paul. 2006. *Postcolonial Melancholia*. New York: Columbia University Press.
- Grosfoguel, Ramón. 1997. "Colonial Caribbean Migrations to France, The Netherlands, Great Britain and the United States". *Ethnic and Racial Studies* 20(3): 594-612. <<http://dx.doi.org/10.1080/01419870.1997.9993977>>.
- Guattari, Felix. 1989. "The Three Ecologies". *New Formations* 8: 131-47. <[http://www.amielandmelburn.org.uk/collections/newformations/08\\_131.pdf](http://www.amielandmelburn.org.uk/collections/newformations/08_131.pdf)> (Accessed 18 June 2015).
- Hancox, Dan. 2013. "The Strange Case of Burial, Four Tet and the Identity Conspiracy". *The Guardian* (June 20<sup>th</sup>): <<http://www.theguardian.com/music/musicblog/2013/jun/20/burial-four-tet-kieran-hebden>> (Accessed 17 June 2015).
- Jones, Terry-Ann. 2007. *Jamaican Immigrants in the United States and Canada: Race, Transnationalism, and Social Capital*. New York: LFB Scholarly Publishing.
- Klein, Naomi. 2007. *The Shock Doctrine: The Rise of Disaster Capitalism*. London: MacMillan.
- Kopf, Biba. 1996. "Basic Channel: Underground Resisters". *The Wire* (August): <<http://archive.is/xS2Dk>> (Accessed 17 June 2015).
- Krims, Adam. 2007. *Music and Urban Geogrpahy*. Oxon: Routledge.
- Olden, Mark. 2011. *Murder in Notting Hill*. London: Zero Books.
- Peach, Ceri. 1991. *The Caribbean in Europe: Contrasting Patterns of Migration and Settlement in Britain, France and the Netherlands*. Coventry: Centre for Research in Ethnic Relations, University of Warwick.
- Pearson, Keith Ansell. 2001. "Viroid Life: on Machines, Technics and Evolution". In *Deleuze and Guattari: Guattari Vol. 2*, Genosko Gary ed., London: Routledge.
- Pope, Richard. 2011. "Hooked on an Affect: Detroit Techno and Dystopian Digital Culture". *Dancecult: Journal of Electronic Dance Music Culture* 2(1) 24-44. <<http://dx.doi.org/10.12801/1947-5403.2013.05.02.05>>.
- Reddell, Trace. 2013. "Ethnoforgery and Outsider Afrofuturism". *Dancecult: Journal of Electronic Dance Music Culture*, 5(2): 88-112. <<http://dx.doi.org/10.12801/1947-5403.2013.05.02.05>> (Accessed 17 June 2015).
- Reynolds, Simon. 2013a. *Energy Flash: A Journey through Rave Music and Dance Culture*. London: Faber and Faber.
- . 2013b. "The Wire 300: Simon Reynolds on the Hardcore Continuum: Introduction". *The Wire* (February): <[http://www.thewire.co.uk/in-writing/essays/the-wire-300\\_simon-reynolds-on-the-hardcore-continuum\\_introduction](http://www.thewire.co.uk/in-writing/essays/the-wire-300_simon-reynolds-on-the-hardcore-continuum_introduction)> (Accessed 17 June 2015).

- Rietveld, Hillegonda. 2013. "Journey to the Light? Immersion, Spectacle, and Mediation". In *DJ Culture in the Mix: Power, Technology, and Social Change in Electronic Dance Music*, Attias, Bernardo, Anna Gavanas, and Hillegonda Rietveld eds., 79-102. London: Bloomsbury.
- Sassen, Saskia. 2001. *The Global City: New York, London, Tokyo*. Princeton: Princeton University Press.
- Sicko, Dan. 1999. *Techno Rebels. The Renegades of Electronic Funk*. New York: Billboard Book.
- Smith, Lee. 2015. "Tony Allen will Join Moritz Von Oswald on Stage – Interview". *Bloc Weekend* (15 January): <<http://blocweekend.com/tony-allen-join-moritz-von-oswald-trio/>> (Accessed 17 June 2015).
- Sullivan, Paul. 2014. *Remixology: Tracing the Dub Diaspora*. London: Reaktion Books.
- Twells, John. 2014. "The 25 Best Dub Techno Tracks of All Time". *Fact Magazine* (21 May): <<http://www.factmag.com/2014/05/21/the-25-best-dub-techno-tracks-of-all-time/3/>> (Accessed 17 June 2015).
- van Veen, tobias c. 2010. "Technics, Precarity and Exodus in Rave Culture". *Dancecult: Journal of Electronic Dance Music Culture* 1(2): 29–49. <<http://dx.doi.org/10.12801/1947-5403.2010.01.02.02>>.
- . 2013. "Vessels of Transfer: Allegories of Afrofuturism in Jeff Mills and Janelle Monáe". *Dancecult: Journal of Electronic Dance Music Culture* 5(2): 7–41. <<http://dx.doi.org/10.12801/1947-5403.2013.05.02.02>>.
- Vecchiola, C. 2011. "Submerge in Detroit: Techno's Creative Response to Urban Crisis." *Journal of American Studies* 45(01): 95–111. <<http://dx.doi.org/10.1017/S0021875810001167>>.
- Vincent, Rickey. 2013. *Party Music: The Inside Story of the Black Panthers' Band and how Black Power Transformed Soul Music*. Chicago Review Press.
- Whittall, Daniel. 2014. "Radical Lives: Claudia Jones". Wire Novara Media. <<http://wire.novaramedia.com/2014/10/radical-lives-claudia-jones/>> (Accessed 1 March 2015).
- Womack, Ytasha. 2013. *Afrofuturism: The World of Black Sci-Fi and Fantasy Culture*. Chicago: Chicago Review Press.

## DISCOGRAPHY

- A Number of Names. 1981. *Sharivari*. Capriccio Records (12-inch): P-928. <<http://www.discogs.com/A-Number-Of-Names-Sharevari/release/41682>>.
- Basic Channel. 1993. *Lyot Rmx*. Basic Channel (12-inch): BC 03. <<http://www.discogs.com/Basic-Channel-Lyot-Rmx/release/3542>>.
- . 1993. *Phyllys Trak*. Basic Channel (12-inch): BC 02. <<http://www.discogs.com/Basic-Channel-Phyllys-Trak/release/2163>>.
- . 1994. *Quadrant Dub*. Basic Channel (12-inch): BC 06. <<http://www.discogs.com/Basic-Channel-Quadrant-Dub/release/2166>>.
- Burial. 2005. *South London Boroughs*. Hyperdub (12-inch): HDB001. <<http://www.discogs.com/Burial-South-London-Boroughs/release/443267>>.
- . 2006. *Burial*. Hyperdub (CD): HDBCD001. <<http://www.discogs.com/Burial-Burial/release/689255>>.
- . 2006. *Distant Lights*. Hyperdub (12-inch): HDB003. <<http://www.discogs.com/Burial-Distant-Lights/release/773776>>.

- . 2007. *Untrue*. Hyperdub (12-inch): HDBLP002.  
<<http://www.discogs.com/Burial-Untrue/release/1125096>>.
- . 2007. *Ghost Hardware*. Hyperdub (12-inch): HDB004.  
<<http://www.discogs.com/Burial-Ghost-Hardware/release/993736>>.
- . 2007. *Archangel*. Hyperdub (CDr): None.  
<<http://www.discogs.com/Burial-Archangel/release/1567293>>.
- . 2011. *Street Halo*. Hyperdub (12-inch): HDB013.  
<<http://www.discogs.com/Burial-Street-Halo/release/2783852>>.
- . 2012. *Truant*. Hyperdub (12-inch): HDB069.  
<<http://www.discogs.com/Burial-Truant/release/4105551>>.
- . 2013. *Rival Dealer*. Hyperdub (12-inch): HDB080.  
<<http://www.discogs.com/Burial-Rival-Dealer/release/5185441>>.
- Burial + Four Tet. 2009. *Moth / Wolf Cub*. Text Record (12-inch): TEXT006.  
<<http://www.discogs.com/Burial-Four-Tet-Moth-Wolf-Cub/release/1755471>>.
- Burial + Four Tet + Thom Yorke. 2011. *Ego / Mirror*. Text Record (12-inch): TEXT010.  
<<http://www.discogs.com/Burial-Four-Tet-Thom-Yorke-Ego-Mirror/release/2770087>>.
- Cyrus. 1993. *Enforcement*. Basic Channel (12-inch): BC 01.  
<<http://www.discogs.com/Cyrus-Enforcement/release/2162>>.
- Cybotron. 1981. *Alleys Of Your Mind*. Deep Space Records (7-inch): 107043X.  
<<http://www.discogs.com/Cybotron-Alleys-Of-Your-Mind/release/162067>>.
- . 1982. *Cosmic Cars*. Fantasy (12-inch): D-212.  
<<http://www.discogs.com/Cybotron-Cosmic-Cars/release/19656>>.
- . 1984. *Techno City*. Fantasy (12-inch): D-226.  
<<http://www.discogs.com/Cybotron-Techno-City/release/19657>>.
- Drexcia. 1993. *Drexcia 2 - Bubble Metropolis*. Underground Resistance (12-inch): UR-026.  
<<http://www.discogs.com/Drexcia-Drexcia-2-Bubble-Metropolis/release/6061>>.
- . 1995. *Aquatic Invasion*. Underground Resistance (12-inch): UR-030.  
<<http://www.discogs.com/Drexcia-Aquatic-Invasion/release/1692>>.
- . 1999. *Neptune's Lair*. Tresor (12-inch): Tresor 129.  
<<http://www.discogs.com/Drexcia-Neptunes-Lair/release/13866>>.
- . 2002. *Harnessed the Storm*. Tresor (12-inch): Tresor 181.  
<<http://www.discogs.com/Drexcia-Harnessed-The-Storm/release/28812>>.
- Juan Atkins & Moritz von Oswald. 2013. *Borderland*. Tresor (CD): Tresor 262 CD.  
<<http://www.discogs.com/Juan-Atkins-Moritz-von-Oswald-Borderland/release/4674784>>.
- Kano. 1980. *I'm Ready / Holly Dolly*. Baby Records (2) (12-inch): BR 54002.  
<<http://www.discogs.com/Kano-Im-Ready-Holly-Dolly/release/805251>>.
- Mad Mike. 2007. *Hi-Tech Dreams / Lo-Tech Reality*. Underground Resistance (12-inch): UR-071.  
<<http://www.discogs.com/Mad-Mike-Hi-Tech-Dreams-Lo-Tech-Reality/release/910833>>.
- Mauriziö. 1992. *Ploy*. Maurizio (12-inch): M-1.  
<<http://www.discogs.com/Mauriziö-Ploy/release/2060>>.
- Massive Attack vs Burial. 2011. *Four Walls / Paradise Circus* The Vinyl Factory (12-inch): VF034.  
<<http://www.discogs.com/Massive-Attack-vs-Burial-Four-Walls-Paradise-Circus/release/3184385>>.

- 
- Rhythm & Sound. 2005. *See Mi Yah*. Burial Mix (CD): BMD-4.  
<<http://www.discogs.com/Rhythm-Sound-See-Mi-Yah/release/361829>>.
- Rhythm & Sound w/ Tikiman. 1996. *Never Tell You*. Burial Mix (10-inch): BM-01.  
<<http://www.discogs.com/Rhythm-Sound-w-Tikiman-Never-Tell-You/release/16226>>.
- Various—Tresor II. 1993. *Berlin Detroit—A Techno Alliance*. NovaMute (CD): CD NoMu 14.  
<<http://www.discogs.com/Various-Tresor-II-Berlin-Detroit-A-Techno-Alliance/release/17033>>.