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TECHNOLOGIES OF GENRE

Digital distinctions in Montreal

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Genre is a perennial problem in the history and theory of electronic music. The very use of a term like ‘electronic music’ throws up tricky problems of association, distinction and categorisation, all of which can be linked to questions of genre. What musics can we identify as electronic, and how are they related? What musics does the category exclude? Are such distinctions merely pragmatic – should categories change depending on when and how we want to use them – or do they help us say something essential about the way the music is made and what it means? Different genres of electronic music offer different responses to these questions.

The electroacoustic literature provides several examples. One of the most familiar systems of distinction in the canon revolves around national or studio-based ‘schools’. Pierre Schaeffer’s brief 1967 guide to *musique concrète* for the instructional *Que sais je?* series, for example, surveys the field by country, inviting novice listeners to hear particular studios or composers as aesthetically ‘characteristic’ of their nationality (Schaeffer 1967, 114). He divides the work of his own compatriots into aesthetic tendencies defined by the series of historical impasses he sees as revealed in his own research. To a contemporary listener, many of his examples might not seem to count as *musique concrète*. His impulse is to claim as much territory as he can. Since the majority of the production he describes took place in public radio studios, the nation was an obvious point of reference. While he does imply a loose set of inclusions and exclusions structured around the distinction between ‘abstract’ and ‘concrete’, he never explicitly disentangles the questions of genre and geography. More recent treatments of electroacoustic genre tend to focus more on an audible means of distinction. In Leigh Landy’s (2007) account, for example, the appeal to aesthetic plurality meets its limit at the boundary between ‘sound-based’ and ‘note-based’ forms of expression. Here understanding a form of music making as concrete is no longer a matter of where and when it occurs but of how it is conceived and materialised.

There has been much discussion of the tendency toward eclecticism and hybridity in electroacoustic music (Atkinson and Emmerson 2016). Whether or not they agree upon which genre distinctions *should* play a role in the way electroacoustic is made, used or analysed, many theorists and composers have a stronger and stronger sense of the role genre *does* play. Surprisingly few, however, have asked deeper questions about genre in action, nor have many engaged with current debates in genre theory across disciplines. Landy treats the problem as a matter of

taxonomy: his primary concern is with expanding audiences, and for him this means finding meaningful ways of classifying the music to help listeners make sense of the relationships that musicians might take for granted. He leaves any question about *how* genre relations are formed – the ‘binding characteristics’ of works within a genre, the relations between genre construction and listening experience, or the role of ‘valorisation’ – to future research (Landy 2007, 208).

Problems of this sort demand an empirical response, to be sure, but they also invite us to rethink our theoretical starting points. For one thing, as Georgina Born reminds us, no empirical study is undertaken from a neutral theoretical point of view. But furthermore, the goal of empirical study should be to adapt and improve theory (Born 2010). Studying the mechanisms of genre in electronic music thus demands both an awareness of theoretical starting points and an openness to new theoretical possibilities. It is in this spirit that turning to other disciplines can be most useful. Other kinds of music and art can tell us important things about the way genre works in electronic music, and thus my chapter provides a theoretical primer that cuts across a fairly wide range of musicological and aesthetic analyses. I do so in order to establish a starting point which is more holistic than typical treatments of genre in the electroacoustic literature. Following Born and others, I argue that systems of categorisation, as well as situating the musics they organise, are situated culturally and historically themselves. They orient listeners with respect to the value of musical objects but also the responsibilities and identities of musicians and their audiences (Born 2011). They may also presume a particular understanding of the historical succession, temporality and future direction of musical expression (Born 2015). The work of genre orders not just the kinds of music in question, then, but the whole universe of musical materials, behaviours and values.

Digital technology is often cited as a mitigating factor in the dynamics of genre. Assessments of its influence in electroacoustic music are generally optimistic. We often read of the ways digitalisation has enabled the rise of the ‘bedroom producer’, and thus of new ‘hybrid’ styles unencumbered by academic tradition, by ‘democratising’ tools which were once too expensive for all but the best-funded institutions (Waters 2000; Emmerson 2001). As I show elsewhere, however, narratives of media democratisation pre-exist the technologies we tend to associate with them today (Valiquet 2014; Valiquet forthcoming). Such assessments deploy the notion of the digital as a synecdoche for the speed, interchangeability and mutability of modernisation as a whole (Rabinovitz and Geil 2004, 4). But while in some cases it is certain that digitalisation has opened access and broken down barriers, in others the digital constitutes new impasses. The sound and materiality of the digital can represent stasis and rigidity just as easily as change. This is illustrated best by situations in which technologies are used to isolate or exclude genred associations. In order to understand such situations, we must think of digital technologies not as independent objects external to the dynamics of genre but as themselves mobilised by and for genre. It is in this sense that I allude in my title to the Foucauldian account of gender construction in Theresa de Lauretis’ 1987 essay *Technologies of Gender*. Genre, like gender, is not a property of things but a complex political apparatus that uses bodies, behaviours and machines to construct relations of belonging (Lauretis 1987, 3–4). What the digital does *to* genre depends upon what genres the digital is understood to embody at a particular time and place. Even if we see evidence of hybridisation on a large scale, we cannot assume that the logic is the same at a local level.

My argument has global implications, but my illustrations focus on electronic musicians in the Canadian city of Montreal. Although for decades Montreal has been recognised in the electroacoustic literature as a central site of acousmatic production (Dhomont 1996), it has received relatively little attention from electroacoustic historians and theorists. The ethnographic fieldwork I conducted there in 2011 and 2012 as a member of Georgina Born’s ‘Music, Digitization, Mediation’ project examined negotiations of digital media policy among educators,

producers and audiences of a variety of electronic musics. While my aim here is not to pin down a particular aesthetic or historical background against which to measure the various genres I studied, those I touch upon in my examples can be seen as related in part by their rejections of (or by) the city's academic electroacoustic scene. My goal in fieldwork was to find out to what extent the development of electronic music practices outside the university studios bore out the dominant narrative of digital technology as a democratising and hybridising force. Although my points of reference are diverse, this should not be read simply as a celebration of new or potential inclusions. Aesthetic plurality provides an even more important opportunity for fresh critical reflection on the changing materialisation of exclusion.

Repetition and difference

Histories and theories of electroacoustic music traditionally organise genres around the trope of technological progress. The reasons for the bias have been partly professional. Composer-historians like Joel Chadabe (1997) and Peter Manning (2013) wrote in part to valorise the work of peers and predecessors who they saw as being misunderstood by a conservative establishment. One of the central assumptions behind their historiography was that technology would necessarily evolve in the direction of affording humans more sophisticated musical expressions.¹ But the trope of technological progress also helps to exclude musics understood to be not 'idiomatic' to the medium. The widely read history by Thom Holmes (2008), for example, defines its object as 'music that exists *because of the use of electronics* rather than music that simply uses electronics'. The correspondingly 'idiomatic' teleology moves toward more and more sophisticated and immediate ways of manipulating sound and thus toward more and more direct channels of communication between composer and listener (Théberge 1997, 158–159). In a similar vein, many electroacousticians cast a McLuhan-esque distinction between what they do and the antiquated disciplines of 'note-based', 'literate' or, in Trevor Wishart's terminology, 'lattice-based' musics still organised around scales and grids (Wishart 1996). This celebration of electroacoustic music as a kind of 'secondary orality' (Ong 2002) can serve social and political purposes as well. Georgina Born (1997), for example, finds that an idealisation of orality can regulate the economy of technical knowledge in cultural institutions, sustaining hierarchical power relationships at the same time as it sustains classical liberal notions of universal accessibility and freedom of expression. The assumptions here are effectively akin to the 'phonocentrism' that Jacques Derrida once criticised in French semiology (Derrida 1974, 12). Expressions that bear the trace of writing are cast aside as pathological deviations from human 'nature', compromises to be abandoned as knowledge about music progresses towards the 'truth' of pure sound (ibid, 38). While they rarely become salient on a critical level, these historiographical currents work between the lines of the electroacoustic literature to expand and to police its genre boundaries, particularly those that distinguish it from the electronic dance musics which have threatened its hegemony since the 1970s.

Around the turn of the millennium, however, electroacousticians began to rethink their histories. Reconsiderations of the Western art music canon had already spread across musicology over the previous decade (Bergeron and Bohlman 1992; Cook and Everist 1999). New voices downplayed modernist tropes of formal autonomy, progress and authenticity, as well as extending a limited degree of legitimacy to dance and popular musics (Chadabe 2000; Emmerson 2001). Electroacoustic composers were increasingly forced to confront the challenges of the burgeoning popular field. Several factors contributed to the proliferation of electronic genres outside of academe, including new dance subcultures (Thornton 1995), new digital production technologies based on sampling and MIDI-sequencing (Schloss 2004) and a recording industry

keen to reignite the market for dance music on compact disc by rebranding it as ‘electronica’ (Taylor 2001; Morris 2010; Lynskey 2015). But the nascent postmodernism did not disturb the balance of power. A new trope of ‘trickle-down’ innovation took hold, according to which electronic dance musicians had simply reappropriated techniques pioneered by the avant-garde (Waters 2000). Prestigious competitions like those at the Ars Electronica festivals changed their profiles to incorporate the perceived expansion, awarding top prizes to emerging musicians like Aphex Twin and labels like Mego (Haworth 2016). The trope of diversification and democratisation found purchase in middle-brow music criticism as well, especially in magazines like *The Wire* and in popularising surveys like Mark Prendergast’s *The Ambient Century* (2000) and Peter Shapiro’s *Modulations* (2000). Thus, the new genres were easily subsumed into the phonocentric narrative of electroacoustic progress. As electronica moved closer to the interests of electroacoustic music, the story of its origins shifted from one of sordid rave chill-out rooms and ambient techno B-sides (Reynolds 1998, 381–400) to one of ahistorical dynamic forces. As Fabian Holt (2007, 126–127) has argued, however, the vibrant cosmopolitan pluralities the new critics advertised often stood for very narrow social spaces in practice.

Scholars have persisted in selecting ‘intelligent’ dance music genres for insertion into a lineage of high art engagements with repurposed media and nonstandard synthesis (Thomson 2004; Kelly 2009; Haworth 2013). ‘Musicians on the fringes of dance music soon enough looked backward to discover the great history of experimental electronic music’, writes a contributor to the 2009 *Oxford Handbook of Computer Music*, ‘and automatically merged to become part of that progression (even had they not looked, they could not have helped the latter)’ (Collins 2009, 339). But the mix of faint praise and outright dismissal in these readings, wrapped in a reduction of aesthetic change to technological progress, undermines the electroacoustic tradition’s claims to diversification. The unfortunate implication is that the privileged white male musicians who make and listen to electroacoustic music see fit to attribute more agency to technology than to their counterparts in predominantly black and gay nightclub subcultures.² As Timothy Taylor (2001, 67) has written,

going back to the European avant-garde is more compelling than a more historically accurate [genealogy] that traces their music to African Americans and gays. As such, these latter groups are almost wholly exscripted as techno is championed as an intellectual music to be listened to, not danced to.

What we find in the historical record of the millennial turn to electronica is thus not so much unfettered diversification as selective canonisation. The technological agents imagined to be behind the shift mask human agents whose practices and identities might break the teleological model. This is far from providing useful terms for a theory of genre as such. But it does foreground a relationship that any workable theory of genre in electronic music must consider: that between technology and power.

Genre theory has seen a resurgence in recent work on late-twentieth-century and contemporary musics. Because avant-gardes place a high degree of value on innovation and individuality, they present a particular challenge to theories of genre that emphasise textual regularity and iterability (Atton 2012; Malcolmson 2013). Musicians who see creativity as the defining element of their practice will often disavow the kinds of convention that identification with a genre community implies. Musicologists and ethnographers examining these complexities have been forced to fashion more holistic theories of the genre formation process. Born, for example, proposes to move beyond Pierre Bourdieu’s class-derived account of genre hierarchy towards ‘a positive account of aesthetic formations, attentive to their productivity and genealogical

longevity as well as to artists' role in reproducing or transforming them' (Born 2010, 188). Other theorists, many of them building upon Born's work, have turned to actor-network theory (ANT) for tools to analyse the production of genres (Drott 2013; Piekut 2014; Levaux 2015; Haworth 2016). These scholars highlight rhetorical flexibility and invention over stable, long-term codifications. But it is important to reconcile the dynamic aspects of ANT with Born's insistence on the weight of technological and institutional mediations.

Studies of popular music typically emphasise the way genres normalise creativity by mediating social hierarchy (Fabbri 1982). The rules, restraints and distinctions negotiated by musicians help to assemble listening publics into more or less stable 'genre cultures' or 'taste communities' (Frith 1996; Negus 1999). But the homological relationship between these social and aesthetic orders is complicated by the way genres are organised and used in everyday life. Ruth Finnegan (1989), for example, has charted how musicians and listeners form habitual 'pathways' between genres as they navigate a local musical scene. Finnegan's subjects choose between contrasting musical 'worlds' that may or may not map easily to class, generation or gender. Simon Frith (1996) suggests a similarly experiential model when he calls attention to the differing ways listeners live *in* a genre. '[T]he genre labelling process is better understood as something collusive than as something invented individually', Frith writes, 'as the result of a loose *agreement* among musicians, fans, writers and disc jockeys' (1996, 88–89 [original emphasis]). These approaches leave us with a notion of genre as a kind of socio-aesthetic contract, connecting particular sets of sound conventions with particular sets of people, however dynamically or contingently, based on agreements that shift across time and space.

Accounts of change in such generic allegiances typically focus on expansion. Perhaps the most systematic is that of Leonard Meyer (1989), who placed genre within the historical succession of stylistic 'schemata' that constrain the set of intelligible musical expressions at a given period and place. His model is like a production-oriented counterpart to Hans Robert Jauss's (1982) notion of the 'horizon of expectations' that makes literary genres intelligible in reception. For Meyer, periods of aesthetic change boiled down to successive acts of deviation against generic codes, followed by absorption into a normalising mainstream. Such deviations both drive forward the process of transformation and affirm the dominance of the norm. Of course, the rate of expansion was not always the same. Meyer famously argued that late-twentieth-century 'radical pluralism' could be understood as a kind of 'fluctuating stasis' (Meyer 1967; see also Taruskin 2009, 46). But as Born and Hesmondhalgh (2000, 39) point out, Meyer's generally formalist account falls short of explaining the 'different self-reflective cultural, psychological, and affective properties' that motivate new stylistic pluralities. The matter of which differences receive reinforcement and which are marginalised is not arbitrary but contingent upon the particular power dynamics in play.

Inventions, transgressions and re-articulations have accordingly received a great deal of attention in genre theory. David Brackett (2016) highlights difference both in the musical text, where genres can be thought of in structuralist terms as 'systems of difference' in which relation precedes meaning, and on a social level, in which musical utterances are articulated to hierarchies and ideologies. In popular musics, the zone of productive difference provides a neat explanation for the existence of dynamism in spite of strong aesthetic and social conventions. Jason Toynbee (2000), for example, uses what he sees as the basic dialectical tension between 'reason' and 'desire' to explain the accumulated deviations that transformed acid house into jungle in the early British rave scene. Elsewhere, Brackett (2005) shows how black musicians in the United States have mobilised a similar tension to articulate marginal identities through the production of 'crossover' cover songs. Fabian Holt (2007, 59–60) splits the process into the three interconnected stages of 'disruption', 'outreach' and 'resistance'. The model seems to apply as well to situations where

exception is the rule. Exploring the practices of British free improvisation, for example, Christopher Atton (2012) has put forward the suggestion that the act of stylistic ‘disruption’ can itself become a norm when grounded in social and territorial regularities. But to what extent can we reduce genre formation to a dialectical spiral of ‘repetition and difference’ (Neale 1980)? Is difference always productive? Do technologies necessarily privilege one side or the other?

Musicologists informed by ANT have tried to pick apart these entangled forces by highlighting the performative side of genre. Eric Drott, for example, argues for a ‘more flexible, pragmatic understanding of the concept’ that links together ‘a variety of material, institutional, social, and symbolic resources’ (2013, 9). ANT offers us a view of categories through their mediations, ‘comprising a meshwork of human and non-human entities, all contributing something unique (though not equal) to the assemblage, yet none being essential to its functioning’ (Haworth 2016, 22). According to Drott, a more holistic view of the genre formation process favours the creative agency of producers over the normative agency of shared convention.

As an ensemble of correlations,’ he goes on, ‘a genre is not so much a group as a grouping, the gerund ending calling attention to the fact that it is something that must be continually produced and reproduced. Genres, in other words, result from acts of assemblage, acts performed by specific agents in specific social and institutional settings.

(Drott 2013, 9 [original emphasis])

Thus both instability and stability are pragmatic and performative. The ‘appearance’ of stable substance emerges through ‘recursive inscription’ (Drott 2013, 12). Instability is not necessarily a matter of audible difference but an effect of contestation over which contexts we privilege when we frame or define those differences (Korsyn 1999).

The meaning of a genre is thus figured by ANT as a kind of agency accumulating in the relations between people, texts, objects and events. New meaning in one domain results from the ‘translation’ of relations and agencies from other domains (Callon 1986) – such as when academic electroacoustic music attempted to liberalise itself by internalising late-’90s electronica genres. Drawing upon ANT’s analytical toolkit thus allows us to see genres as strengthened by the very acts of deviation that traditional genre theorists might have seen as weakening. In the analysis of Gérard Grisey’s *Les espaces acoustiques* which Drott’s argument frames, for example, he points to the mobilisation of generic associations as contextualising resources. He foregrounds the way composers may inscribe in a text ‘the numerous groupings that pieces of music afford’ (Drott 2013, 39) without committing to a single identity. As Christopher Haworth writes, instead of regarding the ‘untidy, overlapping quality of genres’ as an aberration, ANT treats heterogeneity as an ‘inescapable’ ontological condition (Haworth 2016, 22). The focus shifts from belonging to active participation. Genre in this view is not so much a constraint as an asset.

Of course, in a broader historical perspective there is little novelty to ANT’s pragmatism. Drott acknowledges that his own turn to plurality owes a debt to the ‘fissured’ and ‘heterogeneous’ approaches typical of poststructuralism (Drott 2013, 40–41). Pragmatic accounts of genre also come to us from musicologists looking at the classical tradition. Jeffrey Kallberg (1998), for example, has shown how nineteenth-century piano composers used Wittgensteinian ‘family resemblances’ between categories of works to mediate gendered and ideological associations. Speaking to examples from disco-era popular music, Charles Kronengold (2008) stretches the normative notion of genre to analyse differences in the sharing of conventions across an overlapping complex of musics. ‘Genres’, he writes, ‘are in works as much as works are in genres’ (Kronengold 2008, 43). The intertextual approach has been important in ethnomusicology as well. Ethnomusicologists working in the American tradition of linguistic anthropology have

given close attention to the way genre works as a mutable expressive resource. In this perspective, indebted to the anglophone rediscovery of Bakhtin in the 1980s, genre is the means by which musicians situate musical utterances socially, historically and semantically (Bauman 2000, 84–87; Bakhtin 1986). Louise Meintjes (2003), for example, highlights the importance of genred utterance in performances of professional and cultural prestige. Genre for Meintjes is both collective and individual. It indexes notions of identity by allowing us to locate our group belonging in relation to ‘our music’, and it is also ‘intimately tied to the self-making rhetoric that elaborates artistic reputations’ (Meintjes 2003, 19–36).

The flexible and productive manner in which musicians mobilise conventions can both confirm and complicate the ANT account. To understand this complication it may be useful to turn to Jacques Derrida’s (1980) play on the homonymy between the words for ‘genre’ and ‘gender’ in French. Taking his rhetorical move a bit more literally, we might notice significant overlap between the poststructuralist account of genre and the notion of ‘performativity’ that Judith Butler (1990) uses to describe the relationship between expressions of gender and the biology of sex. What ANT doesn’t do is offer insights into the politics of repression and exclusion at play in such a relationship. The structuralist notion of difference implies a positive, relational contribution to the whole, but what happens when such relations are blocked? Bruno Latour himself has been criticised for not only ignoring asymmetrical categories like race and gender but also for reinforcing such inequalities by dismissing the ‘critical sociology’ of power as a whole (Haraway 1997; Sturman 2006). But the critique of asymmetry and exclusion is perhaps poststructuralism’s most important and enduring contribution to our understanding of human culture. Marcia Citron’s (1993, 125) classic study of the Western canon, for example, shows that the marking of musical genre can be just as powerful for what and whom it delegitimises as for what and whom it enshrines. ANT may be very good at telling us why canons include certain musics and how those inclusions can change. But, as Benjamin Piekut has suggested, it is not very good for explaining their *exclusions*.³

Accounts of genre’s mediation by technology have expanded the kinds of associations we recognise as holding genre together, but they often contradict the way musicians identify their own work. Must we assume that musicians and listeners who reject genred identifications are unaware of the meaning of their actions? Do they contradict genre theorists in bad faith? The answer is not always clear. With the flattening notion of the ‘actant’, ANT expands the range of objects and texts we need to take into account alongside those of human musicians. But it is important to remember that Latour’s ‘actant’ is not a given. ‘An actant’, writes Latour, ‘is a list of answers to trials – a list which, once stabilised, is hooked to a name of a thing and to a substance’ (Latour 1991, 122). The list of trials given to music technologies does include generic attachments, but it also includes hierarchies of skill, technical knowledge and monetary value. As Born argues, Latour’s approach emphasises immediate acts of inscription over longer institutional and historical arcs and thus offers only a very distorted lens through which to examine such relations of power (Born 2012). Bringing technology into the mix should not only expand the number of opportunities we recognise musicians as having to make and affirm genres, it should also draw our attention to the different ways the *breaks* between genres materialise. We can hold on to Latour’s assertion that actants are not given in advance, but this should place even more critical emphasis on the asymmetrical politics of cultural practice.

Fluorescent friends

Outside of Montreal’s universities, many of the musicians and artists I encountered in 2011–2012 were openly hostile towards the academic electroacoustic tradition. Critique usually revolved

around the tradition's perceived phonocentrism, its tendency to ignore or dismiss aspects of production and performance not directly related to sound. Drop-outs from the university studios often ended up in the city's vibrant noise scene, which at the time of my fieldwork was relatively more welcoming to practices outside the electroacoustic canon, especially those involving instrument building, conceptualism and site-specificity. Instead of the studied, reflective listening of electroacoustic convention, Montreal's noise spaces offered mixed pleasures where visual and haptic elements mattered just as much as sound. But their openness to other aesthetics did not translate into greater political engagement or socio-cultural diversity.

Much attention has been paid to ways instruments and recording formats seem to reinforce the boundaries of experimental rock and noise scenes. As David Novak (2011, 626) has written, the physical 'distortion' typical of the analog also indexes the ethical and aesthetic values of the 'underground' culture of circulation in which listeners must participate in order to gain access to analog recordings as commodities. Theorists such as Paul Hegarty (2007) and Joanna Demers (2010) have boiled this complex material-discursive formation down to the opposition it seems to present to mainstream conventions of beauty and progress. As many music industries moved towards cheaper and more mobile digital forms of distribution in the 2000s, noise's saturation with 'residual' instruments and formats seemed designed for resistance against the music industry (Acland 2007). It intensified the fetishistic 'paratexts' shed by digital music commodities since the 1990s (Straw 2009) and re-enchanted the hand-to-hand exchange of DIY barter networks (Novak 2013, 198–225). Some have celebrated this in a Benjaminian tone as a kind of popular resistance to capitalist hegemony (Ghazala 2004; Collins 2006; Richards 2013). But it is wrong to think of noise aesthetics as politicised in such a simple way. What sets noise practice apart is not the use of residual media as such but a particular style of material selection and elaboration situated in a complex network of generic relations and stoppages.

One of Montreal's most prominent noise labels in 2011 and 2012 was the informal label and promotion unit known as Fluorescent Friends. It had formed around the work of Ottawa-born musician Blake Hargreaves shortly after his move to Montreal in 2002. From 2007 to 2012 Hargreaves also ran a series of festivals in collaboration with the now-defunct studio collective La Brique. He played in and recorded the work of several groups in Montreal, eastern Ontario and New England. The roster of artists ranged from guitar-based post-punk, to drone, synth pop and performance art. The audience cut across Montreal's art, indie rock and experimental music scenes. Publicity circulated over student radio and online through Facebook, Bandcamp and a dedicated website.

Having a label seemed to Hargreaves an aesthetic rather than a business decision. Inspired by American bands like Lightning Bolt (2001) and Black Dice (2002), Hargreaves treated the label as a way of framing and grouping releases. The style of noise associated with these bands was more rhythmic and melodic than the more raw, continuous sounds normally held up as typical of the genre. Their artwork and performances combined the images of psychedelic kitsch, political and sexual subversion, and exaggerated violence, all embedded in an ethos of authenticity and craft. 'It was like window dressing,' he told me. 'The closest I can get to just instinct and then thinking about it later, the better.'⁴

Releases trickled out in a variety of formats, in runs of anywhere between 1 and 300 copies, almost always with artwork assembled by hand. Particularly distinctive were a series of Plexiglas discs with music cut into one side and colourful artwork on the other. First each disc was painted with multiple layers of spray paint and stencils. Then Hargreaves etched the music directly onto the opposite surface using an antique mastering lathe he had bought on the online auction site eBay. For packaging he repurposed LP covers from second-hand stores. The difficulty of repeating the etching and painting processes made mass production impossible, so

instead Hargreaves saw the device as a part of the creative process: 'For me it's one-off music art. Sort of concept pieces.'

The finished product blurred the line between instrument and recording medium. Tracks were selected from a pool of digital sound files that could be reused in a variety of formats. Parts of an album originally released on cassette could show up later on a lathe-cut disc, a Bandcamp page or even a CDR from a different label. Thus, the sale price reflected not so much the rarity of the music as the cost of labour and materials that went into the format. 'That's like forty dollars for an LP,' he assured me.

That, people when they see it, they don't really feel sure that it's going to sound as good as they want it to. I don't sell ones that sound really bad. They sound a little sketchy, but I can get it to sound pretty good, and I set pretty high standards for that.

He also saw no reason not to contract his work out to other musicians. In the spring of 2012, for example, he had worked on a commission from the turntable improviser Martin Tétreault, a prominent figure in Quebec's *musique actuelle* tradition (Stévance 2012). Hargreaves cut a set of discs for use by Tétreault's turntable quartet (2011) for a series of concerts in Quebec City. Tétreault's work explores the turntable as a complex amplification mechanism – the needle as a contact microphone and the platter as a resonator – rather than a transducer of recorded sounds per se. The blur between medium and instrument resonated strongly with Hargreaves' approach. 'Projects like that are nice because I'm just trying to do a good job with the lathe,' he said. 'I'm not really thinking about this band, or will people want this. I'm this craftsman. Like a cabinet maker or something. Just giving him the specs of what he needs.' In both cases – as a medium and as an instrument – the use of the disc worked against the possibility of hearing the music as pure sound. This was not a matter of nostalgia for the analog. It was a new cut across a contemporary aesthetic network.

The same was true of more conventionally 'retro' technologies like the cassette. Critics of popular music have depicted the afterlife of cassette culture in the digital age as a nostalgic evocation of lost authenticity (Reynolds 2011). The cassette's redundancy appears to leave it little value aside from arbitrary subcultural validation. Its classic role as a grassroots medium – as in Peter Manuel's (1993) account of the democratisation of popular music recording in India – has eroded to the point that, as Elodie Roy (2015) argues, the cassette now operates more as a keepsake than a medium of circulation. For noise musicians, however, cassettes are more than media. Katherine Kline, Hargreaves' bandmate in the duo Dreamcatcher, described to me how her use of cassettes wove a personal history of mix-tape trading into her instrumental practice. On Dreamcatcher's 2008 cassette for the Ecstatic Peace label, *A Team Come True*, Kline runs the audio output of a cassette player into the external input of her Electribe ER-1 drum machine. When she found a section she liked she could simply flip the cassette, advance on the opposite side, and then flip again to make a 'loop'. 'It's always a surprise,' she told me.

Because I don't mix. I haven't chosen specific loops or moments. There are moments that work better than others with certain beats, but I'll just let it play [. . .] and depending on where the tape is at, it always kind of changes the quality of the music.⁵

Many of Kline's cassettes came from second-hand stores, like the covers of Hargreaves Plexiglas discs, but she also used tapes she'd traded with other bands.

Notice also how Kline's use of the cassette bends the generic links we normally associate with the drum machine. She told me that when she had begun to work with Dreamcatcher

her choice of instrument had been inspired by electroclash bands like the Detroit-based Adult (2003). It did give Dreamcatcher's music a rhythmic and repetitive quality, but Kline's associations changed when she saw how rarely people in the noise scene danced. When the duo was later invited to play at Montreal's MUTEK festival in a showcase of local talent curated by Eric Mattson, Kline found herself on the opposite side of the distinction. As she described it, the fact that she was now playing among the dance-oriented musicians who had once inspired her brought the irony of her drum machine playing even more strongly into the foreground. It now seemed ridiculous to her that their musics should be thought of as related just because of a single device. She had plugged it in differently, and a different music came out.

LPs, cassettes, and even hardware drum machines usually fall outside of the domain we normally consider when we talk about 'digital music'. But as recent work by Roger Moseley (2015) and Jonathan Sterne (2016) has shown, the deeper we dig into the components and interconnections of musical media, the less easy it is to distinguish between analog and digital in technical terms. More often than not, the term analog marks a judgement of value against the digital – continuous as opposed to discrete, old as opposed to new, hardware as opposed to software, real as opposed to imaginary – which can only be made sense of against a particular cultural background. Recognising this can help us push back against the reduction of the analog to a simple retrograde of digital culture. But it also changes the way we attribute agency in the development of genres like noise. Because genres shift and mutate in relation to perspective and over time, generic associations cannot be hard-wired into technologies like an instruction manual or script. Even as uses become sedimented, this does not restrict the user to a particular generic attachment. Noise musicians are thus not passive subjects of a general analog nostalgia. They actively shape their instruments and media in ways that avoid the narrative of technological progress. The space they establish excludes the technical binaries that structure electroacoustic hierarchies.

Kantnagano

Some musicians I worked with placed even greater stress on their instruments' contradictory capacities. This was especially the case in the more conceptual performance art circles that proliferated on the boundaries of Montreal's noise scene in 2011–2012. Conceptual art can encompass sound and music but is not primarily a music genre itself. When music is used in this context, the citational quality may be amplified. This can be true both of the sound itself and also of the instrumental and gestural repertoires involved. Consider Janet Cardiff's 2001 installation *40 Part Motet*, for example (Christov-Bakargiev 2002) The piece is not reducible to a recording of Thomas Tallis' *Spem in Allium*, even if this is the installation's only sonic content. Cardiff is citing both the work as a whole and its various internal relations, which the listener can discover by walking amidst the speakers. This framing makes the work unique. Whereas *Spem in Allium* participates in certain genres of Elizabethan sacred choral music, *40 Part Motet* does not, or at least not in any direct way.

The work of the trio KANTNAGANO is similarly multilayered. The group's genealogy connects with a variety of local traditions of experimental music and theatre, but they make no solid claims to belonging. All three members – guitarist Jonathan Parent, bassist Alexandre St-Onge and synthesist Alexander Wilson – were born and raised in Quebec, and all three have roots in the late 1990s post-rock scene. Two – St-Onge and Wilson – have since pursued doctoral degrees, but both chose to study philosophy and critical theory rather than music. They resisted associating with academic composition or free improvisation, but at the same time their work was often too disjointed and cerebral to sit well with rock or electronic dance music audiences.

Instead, they treated the proliferation of boundaries as a source of formal and conceptual tension. Their deliberate ambivalence did put them equally at home in rock clubs, electronic music festivals, dance venues and art museums, but this venue-hopping was not informed by a politics of reconciliation like other attempts at postmodern cross-genre synthesis. The group's tongue-in-cheek name, a play on the name of Montreal Symphony musical director Kent Nagano, signalled an irreverence towards serious music at the same time as it established a clear penchant for other kinds of seriousness. Explicitly or not, it also rooted the group firmly in the culture of the city. The proliferation of translational registers is typical of literary and vocal performance in Montreal, permeating everything from billboard advertising to poetry (Simon 1994; Heller 2011).

In the spring of 2012, KANTNAGANO announced a new album entitled *Blessure narcissique* ('Narcissistic Injury') in conjunction with a 45-minute audiovisual performance at the Musée d'art contemporain de Montréal. It was to be their first release on vinyl. The style of the performance floated between a kind of psychedelic sublime and science fiction kitsch. The musicians sat in a triangular formation in the centre of the audience. Laser lights controlled by Wilson's synthesisers traced repeating patterns on the walls around them. St-Onge and Parant played MIDI-augmented guitars which, instead of making their own sounds, controlled samples of drums, animal noises or synthesisers. Analog and digital infected and inflected one another, both in the performance and in the album. There were 30 copies, in hand-numbered 12-inch LP sleeves. But each contained a large format vinyl sticker instead of a disc. The image on the sticker was a "quick response" or QR code, which, when scanned with a cell phone camera, directed the listener's web browser to the album's Bandcamp page. St-Onge described the strategy as one of 'impurification'. The point of making so many cuts and connections was to set up conditions in which aesthetic agency could slip in and out of the performer's grasp. 'It's about multiplying the inputs and outputs,' Wilson told me, 'so that we can get intertwined within it, have a direct relationship with it, but not know exactly what's going to come out of it'.

This foregrounding of the digital set KANTNAGANO far apart from their contemporaries in the noise scene, which tended to prefer low-tech, intuitive setups. Their use of MIDI, for example, opened up a tangible gap between gesture and sound. But they made no attempt to fill the gap with 'human' expression, and in this way also distanced themselves from the academic scene. For decades, computer music researchers have tried to invent more organic, high-bandwidth ways of interfacing with digital synthesis on the basis of this supposed lack. As composer and engineer F. Richard Moore (1988) once wrote, poor resolution and 'sluggish' serial transmission channels made the standard anathema to the ideal of 'control intimacy'. The natural foil for Moore was the human voice, in which 'the microgestural movements of the performer's body are translated into sound in ways that allow the performer to evoke a wide range of affective quality in the musical sound' (Moore 1988, 22). The difficulty of interfacing with the first generation of MIDI-enabled instruments has grown to mythical proportions. According to one version of the story, technicians for a prominent synthesiser model (in some tellings the DX-7, in others the Prophet-5) noticed that the majority of units came back to the factory for repair with their preset patch information untouched. The assumption in computer music circles has been that the users must have been incapable of programming and relied entirely on presets, despite the fact that they may just as well have saved their own patches elsewhere to protect their work (Théberge 1997, 75–83). The truth behind the stereotype is that MIDI seems to open a gap between the performer and the production of sound, which the electroacoustic tradition has seen as a problem to be solved. For KANTNAGANO, however, this gap afforded a kind of 'abjected' playing that they could use as a productive resource in its own right.⁶ The 'bad' qualities of MIDI-enabled playing are not repressed, but internalised and reframed. The goal is to stage the alienation, almost as a mockery of those who abhor it.

Other performances placed the logic of connection itself in the foreground. At a collective event curated by the group in April 2012, St-Onge presented a solo performance entitled *Aimer la concrescence* ('Loving concrescence'). He stood hunched in front of a microphone, his bass guitar lying on the floor in front of him, humming and singing while breaking a bundle of wooden sticks in his mouth. As he vocalised the pieces of wood fell from his mouth and struck the strings. After a few minutes he repeated the action with a sheet of paper, chewing it to pieces and dropping it on to the strings of his bass. The sounds of voice and bass were not mixed separately, however, but triggered a feedback system running on Ableton Live and an analog synthesiser. He controlled the modulations with a Wiimote attached to his back. The surreal series of movements and vocalisations, added to the fact that he rarely touched the instruments, gave the slowly evolving composite a dream-like, disjointed quality. The piece's title referenced Gilbert Simondon's theory of technological evolution. A device or system is abstract, according to Simondon, when its components are differentiated from each other and therefore only held together by the whole. As elements become adapted to each other's functions and less separable from the whole, the system becomes more purposefully individuated and thus more concrete. The process Simondon calls concrescence is the movement between these 'phases' (Simondon 1958; Dumouchel 1995, 261–263). We can think of the individual components of St-Onge's setup in a similar way. Separately they point to a variety of generic attachments that we must read and evaluate separately. Connecting them so loosely sets up a condition in which the associations of the components and the associations of the whole almost compete with each other for priority. The generic identity of the whole is not a composite so much as a framing of the conflict between the parts.

Borrowing from Judith Butler (1993), Georgina Born has argued that cultural institutions produce their aesthetic identities not only by managing internal differences but also as a function of their 'constitutive outsides', the musics they absent or repress (Born 2010, 193). There are clear resonances with the semiotics of genre. As David Brackett has shown, a generic assemblage is produced by both internal iterations and external interactions at the same time (Brackett 2016, 10). Indeed, for Karen Barad, we should think of the act of dividing things 'together-apart' as producing agency and materiality as such (Barad 2012, 32). KANTNAGANO's citational use of digital technologies worked in precisely this manner, rejecting any belonging to computer music on one hand while also representing computer music (if ironically) for their experimental rock audiences on the other. This generic double negation is not built into their instruments, however. It materialised at a particular place and time, in a specific generic assemblage, in relation to a local set of discursive and social practices.

Conclusion

I began by questioning the narrative that pins generic hybridisation to the processes of technological democratisation. This is not to say that hybridisation and democratisation are bad things. But we need to know exactly what each process entails if their interrelationship is to tell us anything useful or specific about musical aesthetics. It is not enough to hypothesise a correlation based on a theoretical principle – such as Meyer's classic recourse to entropy – and then look for examples that back the theory up. Technological and aesthetic transformations are equally shaped by human desire, and as such by hierarchical mechanisms of social order like gender, race and class. Recognising this should also stop us from assuming that all musics necessarily aspire to belong to the same imagined wholes.

In effect, I am arguing that generic change should be even more complex than the millennial heralds of postmodernity would have had us believe. New pluralities, where they exist, are not

flat landscapes of productive difference. Some pluralities simply apply a new aesthetic surface to old social exclusions. Some close gaps while others engender distance. We may have done away with the grand, Adornian negation that once separated high art from entertainment, but this should not blind us to breaks and exclusions on a local scale. The more closely we attend to differences, the less likely it is that we will be able to relate them all in an inclusive way. At any rate, the concept of hybridisation offers us only a very blunt instrument with which to do so.

Technological progress is similarly difficult to generalise. And we need to be especially suspicious of terms like democratisation, which give a distinct political value to this anonymous force. Technical innovation is increasingly taken as a model for political governance as a whole (Barry 2001). However, whether it means extending popular access to technology or enhancing public participation in technological evolution, the notion of democratisation assumes a great many things about how that governance should work. A democratic politics is not necessarily a politics in which every voice and every issue has equal weight. Indeed Langdon Winner (1995) and Andrew Feenberg (1999) have argued that political ideals like democracy, if they are worth preserving at all, should hold back the progress of technological change instead of being driven by it. A degree of free public access to the means of production is a good thing, but popular access is not a substitute for responsible collective administration. For Feenberg the goal should be a 'deep' democracy in which popular agency is normalised and incorporated into the procedures of an electorally empowered technological governance (Feenberg 1999, 146–147). Regardless of whether we agree with Feenberg's prescription, it is important to recognise that the politics of technological change is itself a work in progress. The value of democracy depends by definition upon the responsibility of those who have a stake in it.

As I hope to have shown in my illustrations, the forms of technological and generic change are contingent upon both local circumstances and the broader social and historical background. Accounts of a digitally mediated explosion of new electronic musics are incomplete without close consideration of the boundaries and asymmetries in play. Instruments have been opened up to new generic relations, but in many cases musicians understand these identifications as liabilities rather than assets, problems rather than solutions. In addition to resolving conflicts, then, plurality can also intensify and multiply exclusions.

Notes

- 1 Early examples of this trope appear in Luening 1968 and Appleton and Kasdan 1970.
- 2 See Taylor (2001) for a more detailed discussion on this point. Popular music scholars like Fikentscher (2000) and McLeod (2001) have gone further, suggesting that disco's absence from many electronic dance music genealogies conceal efforts to *suppress* its close association with gay nightclubs. Several authors have also pointed out how frequently electroacoustic theorists slide into tropes foregrounding 'embodiment' over intelligence when describing music associated with black subcultures, including Lewis (1996), Born and Hesmondhalgh (2000), Meintjes (2003).
- 3 Indeed, this is a central point of Piekut's conclusion to his ANT-inspired book on experimentalism: 'Future histories of experimental music may well include the Stooges, but that would require that these histories explain how and why certain musicians, performances, or venues were previously thought to be outside the boundaries of experimental music. In short: those future histories must include exclusion' (Piekut 2011, 196).
- 4 Personal communication, 23 March 2012.
- 5 Personal communication 12 August 2011.
- 6 For a Lacanian account of abjection in musical performance see Schwarz (1997, 143). In his analysis of the paintings of Francis Bacon, Gilles Deleuze (2004, 15–16) relates the abject to the image of a body that 'attempts to escape from itself *through* one of its organs in order to rejoin the field or material structure'. While potentially informative, further inquiry into the psychoanalytical value of the abject would be beyond the scope of this chapter.

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