Chapter 9

Temporalities, aesthetics and the studio: an interview with Georgina Born
Georgina Born & Alex Wilkie

Alex Wilkie: Your foundational study of the Institute de Recherche et Coordination Acoustique/Music (IRCAM) in Paris (Born 1995), where the 'studio' hosts the production of high modernist and experimental electronic music, seems to have played an instrumental part for your approach?

Georgina Born: With my ethnography of IRCAM I arrived in this high modernist computer music institution in 1984 having never been in an environment of electronic music — except for Henry Cow, the avant-garde rock group I played in — and having never touched a computer before. I realised that for this study it was necessary to invent an analysis of mediation as a methodology that could cope with music's profuse mediations. This involved the idea that musical sound always comes to us both embodied in and transformed by its numerous simultaneous mediations: discursive, social, technological, visual, spatial, temporal and so on. The discursive was particularly interesting at IRCAM because the production and inscription of knowledge via computers was central to the place, so I had to understand the status of this production. I quickly realized the radically arbitrary nature of the relationship between all this discursive production and sound, informed by the semiotic anthropology of Steven Feld (Feld and Fox 1994). It's interesting how little this is grasped by musicology in as much as discursivity can't be understood as having any necessary or natural relationship to musical sound.

So my work on IRCAM resonates with the premise of Studio Studies, since the site of music production there, the 'studio', is a very extended one. The studios inside IRCAM were in fact engaged in the production of software and hardware as much as the making of music. I took all of this as the 'site' of creativity, in a strongly distributed sense; and it led me not only to do the first ethnography of the materiality and the distributed labour of software production (Born 1996, 1997), but also provocatively to analyse the entire hierarchical institutional division of labour within which music was being produced — from the top echelons of scientific and artistic management, through engineers and composers, to secretaries and cleaners, i.e. the whole spectrum of contributions — as amounting to the social mediation of IRCAM music. This came from an anthropological sensibility, and I commend it: the Latourian conception of the 'social' as network, now often uncritically adopted, can blind us to the enduring forms within which cultural production proceeds, such as extended social hierarchies.

Alex Wilkie: What I find interesting about your work is that it acts as a corrective to thinking about the studio as a vessel or container of artistic and so called 'creative' practices. In your account, the studio is always situated in some kind of institutional arrangement…

Georgina Born: …or, I'd say, in relation to other scales, wider arenas. I studied two major institutions, IRCAM (1995) and the BBC (2005b), and my work on art-science also engages with the university UC Irvine (Born and Barry 2010). The key question here is: what's the

relevant unit of analysis at such scales? For our research at Irvine it was important to take the university into account: our enquiry into the Arts, Computation and Engineering masters programme there focused on interdisciplinarity, and this had been the premise of UC Irvine since it's inception. So with our art-science ethnography, the university necessarily enters the analysis, but so does the University of California system-wide Digital Arts Research Network. And ditto for my work on IRCAM and the BBC because they, like most major cultural institutions, have policies and management credos that condition how 'creativity' proceeds in the 'studio'. It's standard anthropological method to take such policies or discursive forms and hold them up against practices and actualities, so as to analyse both their influence and the drift and disparities that become apparent.

For the past four years I've been working with a team of ethnographers on a project, 'MusDig', studying music and digitisation in six countries.[1] Most of these studies are multi-sited, and music circulates amongst various settings. What's striking here is that what we call 'digital art musics', the inheritors of earlier computer and electronic art musics, is a differential and a plural category, and one that is defined around the question of the institution. Much of this musical practice occurs within academia, and the boundary between this and outside, non-academic practices is highly charged and marked. One of the themes of our work concerns the transformation of this very boundary, noting how many artists who've emerged outside the academic scene are busily trying to accrue the authority to enter the academy and influence academic music. So this is a key era of transition in which the relationship between academic and non-academic musics is being reconfigured as we watch. In Montreal, for example, Patrick Valiquet, one of the researchers, is looking at practices both inside and outside the universities, and charting the changing relationship between those scenes.

In contrast, our research on digital popular musics in Kenya and Argentina, two other sites in the MusDig project, is very different. In both countries, we're looking at tiny studio and bedroom operations, or at small labels and production houses, where there's no larger institutional identity. The economy of such outfits and how they survive is varied. Some survive simply by a very rapid throughput of production. So one inventive production house in Nairobi, Still Alive Records, is run by a producer called Tim Boikwa who charges for his expertise and studio time by the hour, serving queues of people down the block who all consider themselves to be 'artists'. In a typical day he will have a dozen people through, lay down a track for them, produce it, arrange it, and turn them out with a burnt CD. This is how his studio economy operates: it's immediate, non-collaborative labour, and very rapid throughput.

Across Nairobi, in the production house Ketebul Music, they are trying to create would-be Kenyan equivalents to Youssou N'dour or Salif Keïta so as to enter world music markets. This is supported by a huge range of transnational charities and corporations: the Ford Foundation, Goethe Institute, Alliance Francais, Total Oil, BP as well as EU development funds. All this development and charity money is coming in because they are doing a kind of music that is understood to have potential civil society effects. So to understand the Ketebul 'studio' and what it's doing aesthetically, right down to particular gestures at the mixing desk, we need to understand the ethos of production — and that's in part to do with funding policies

supporting their work. The studio is enmeshed in a particular development paradigm in which the idea of the 'creative economy' has become highly influential. Evidentially, we can follow the mediations: how the creative economy paradigm entered development, such that aid comes in the guise of support for cultural production — and prominently, music. Ketebul, a production house built around a senior figure in Kenyan popular music, is seen as a prime conduit for bringing this vision, at once a musical and a political vision, into being. The audience that's envisaged in this set-up is a new national Kenyan middle class that, it's imagined, will be assembled by particular sounds that are inflected by a range of Kenyan ethnic musics. This is, then, a hugely important cultural political project, the aim of which is nothing less than to assist in overcoming the ethnic divisions still rife in Kenya, and to do this by combined aesthetic-and-social projections (Born 2011a).

Allowing the wider arenas, the institutions and/or political economy, into the analysis makes it possible, then, to follow how they enter into the minutiae of creative practices — into the studio. In Ketebul, this happens through a preference for certain kinds of sounds, production techniques and uses of the digital audio workstation, all of which are oriented to the imagination of a certain trans- or post-ethnic sound, which it is believed will in turn produce a new audience — a Kenyan national middle class.

Alex Wilkie: So, such studio distributions operate to elicit new publics through post-ethnic sounds, and this is mediated through concatenations of intermediaries including specific gestures, tones, technologies as well as institutional and economic arrangements. In that context, could you describe how you became interested in the mediations of music? Your work relates to Antoine Hennion's, but differs in many distinctive ways.

Georgina Born: I had a version of my own mediation theory from the early 1990s. But I returned to mediation through a reading of Alfred Gell's 'Art and Agency' when I wrote 'On Musical Mediation' (2005a), asking: what would happen if we took Gell's approach to music? It suggested two starting points. First, Gell addresses the way objects in their circulation are both embedded in and engender social relations. His is a Durkheimian account of the social, but I've developed a distinctive account of music's multiple social mediations (Born 2011b). Second, there's a temporal aspect to the circulation of art objects, and this is often neglected. So what interested me was to develop an analysis of the socialities and the temporalities engendered by the object's circulation; and then to take these ideas to music and consider the ways in which music, as a form, demands a specific theory of mediation.

In this sense my work comes close to Antoine Hennion's, yet differs. I extended Gell's work to think about music's social and temporal mediations. But what was still missing was any account of how such mediations relate to music's plural ontologies — by which I refer to how human actors understand what music is, how it is lived and experienced. In 'On Musical Mediation' I contrast two prominent historical ontologies of music. The first is the romantic ontology of the musical work, anatomised by Lydia Goehr (1991), where an essentialised conception of the work ideal goes along with the absolute denial or absenting of almost all of music's material and social mediations. This contrasts with a huge body of work from cultural studies and popular music studies since the 1970s on black musics — jazz, hip-hop and dub reggae, for instance — in which music's material and social mediations are to the fore in

terms of how music is experienced. Here, the materiality of the vinyl record, the beat box or the drum machine, along with social relations of race and class, figure powerfully in what music is. This is not only about mediation, but about ontology: together the two musics evidence radically different ontologies.

It became obvious to me, further, that this way of approaching music was in tension with a Latourian stance, where the world is addressed through an a-priori ontology. In my paper on Gabriel Tarde's social theory (Born 2010a), I make the point that we should distinguish between the ontology of the analyst and the ontology of our actors. We shouldn't confuse the two, and nor should we project our own ontology onto those we study. I turned to Lisa Blackman's work, which I admire greatly, to point to the risk in psychosocial thought of projecting analytical ontologies that occlude the ontologies of those we study. It's a similar problem with Latour: beyond the dualism of moderns and non-moderns, he's not really interested in the ontology of the actors, which, as anthropology shows, is a rich and complex matter. My own method in the ethnography of distributed objects is to analyse the multiple mediations as an assemblage or constellation, and then move to the actors' ontology (Born 2013); what is interesting with this step is how certain mediations become prominent ontologically while, as I suggested above, others disappear or are absented.

Alex Wilkie: I'm also struck by the temporalities of the studio, something that seems especially relevant to musical practices and modes of production. A feature of the Nairobi studios, you mentioned before, is the tempo at which they produce musical output, via the coordination of all sorts of studio temporalities?

Georgina Born: Yes: at Still Alive studio, as I said, the tempo of production is incessant. It's a very rapid throughput of would-be artists, and the owner-producer Tim Boikwa sells his services hourly, producing a recording, a CD, that they walk away with. He lays down guitar, keyboard and rhythm tracks, which he processes, mixes, quantizes and de-quantizes. He's a master, hence the studio's reputation for rapidity.

My work on digital art music also brings home just how radically significant time is in the economy of the music studio. I focused in the UK and Europe on universities, to see how the academic scene had changed in the thirty years since my IRCAM research. Things are extraordinarily different in some ways. In terms of time, one of the composers I encountered in my fieldwork at the Sonic Arts Research Centre (SARC), Queens University Belfast, exemplified a totally different studio temporality, the opposite of Still Alive's. This acoustic composer, trained in the post-serialist tradition, used digital studio processes but employed PhD students to do the programming. In an interview, the composer described the production of a recent piece involving a solo instrumentalist learning a complex score, with digital manipulations. The piece required the virtuoso soloist to learn a twelve page score at roughly one day of rehearsal to absorb one page. The composer had no source of funding, so he himself paid the soloist to learn the score. That's twelve days of work for a top instrumentalist, several thousand pounds. The piece had already been in planning and preparation for four years; so four years of 'creative imagination' had been devoted to this work. The composer hired a PhD student to do the programming and a lot of the realisation in the studio, including recording — another few thousand pounds. This culminated in a couple

of local performances. Our dialogue ended with the composer sharing his despair because the temporal horizons of this kind of creative process are untenable. He felt he couldn't sustain the ethos and the belief in the necessity of his own compositional practice given its temporal arc and economic basis, as it eventuates in a very limited set of performances and a tiny audience. I bring this up to touch upon other ways in which time mediates the studio, and the studio itself mediates variable kinds of time. Of course, somewhere in the middle is where much music production happens.

Alex Wilkie: And the fact that software and software practices engender their own temporalities, both in production and execution, must connect to your work on IRCAM and digital art musics as well?

Georgina Born: At IRCAM I observed software development as a relatively undisciplined R&D process. In the book I describe how software was constantly and recursively being developed, collaboratively, in minor ways. There didn't seem to be any kind of larger management. There were phases of work and then a point of stabilisation would be reached where the software could be distributed internally and tested out by others; then it would enter back into flux. Musicians would enter into the collaboration with programmers and scientists, working intensively together, forming what I called the 'musicians group vanguard'. Together, they would test the latest version: the musician would voice problems and criticisms, the programmers would make changes. This seemed to be a productive 'studio' dynamic; and yet IRCAM was widely known never to produce a working software program. So this dynamic also caused controversy and dissent: scientific management criticised it, while software developers staunchly defended this collaborative tinkering. There was a utopian cast to the undisciplined R&D processes, but whether they resulted in software that could be distributed and used externally was unclear. So while I saw this collaborative and recursive process as the most creative kernel within IRCAM, the irony was that it didn't result in particularly powerful software development, nor in notably great music.

As I began to read about AI, I saw that the dynamics around software R&D that I'd observed at IRCAM were more pervasive in AI research. The recursive tinkering was considered to be an 'experimental' method of programming, without telos, and it was opposed to more disciplined, instrumental, ends-oriented forms of programming. Perhaps this speaks to two general types of 'design', which are more or less ends-oriented.

Alex Wilkie: What you've outlined also raises the epistemic status of studios. My studies of design research in universities — and maybe this is also evident in your work on music and art-science studios — shows that designers routinely and explicitly invoke the term 'lab' to designate the epistemic conditions in which work is conducted. It's actually very rare that you find an academic research group that use the term 'studio'.

Georgina Born: That's right. One of the themes from my IRCAM study, which something like Culture Lab at Newcastle University also exemplifies, is the intrinsically interdisciplinary nature of these projects that operate at the interface of music/sound, the arts, and the sciences and engineering, and, as you say, the epistemic authority and legitimation that accrue from these apparent links to science. What is extraordinary from the field I'm looking at now —

broadly, music technology — is how varied are these forms of interdisciplinarity. While many centres attempt to span music and science and technology, recently I've been looking at the Centre for Digital Music at Queen Mary, University of London. It's set within a School of Electronic Engineering and Computer Science, one of the most engineering-focussed groups in the UK; but there's no music department. It's basically a grant machine, very close to commercial music technology research, and they undertake many hybrid projects with commerce. Recently they 'discovered' ethnography as a tool for user research — an instrumental use of ethnography, just as it's evolved in design. So, there's a strong purely engineering culture in music, whether in the lab or the studio. But I would say that in places like Culture Lab, it's a metaphorical use of 'Lab' expressing a different, artistically experimental set of commitments. Where we've gone in MusDig, 'studio' is the vernacular term for these workplaces, but of course this also remediates the earlier 'recording studio' usage.

Alex Wilkie: Your work has also taken you to television studios, which I'm sure are very different to music studios. Does this throw a different light on our premise for the book — the studio as distributed and as process?

Georgina Born: The production processes I studied at the BBC were distributed across many sites. I spent most of my time in pre-production, in rooms with groups working creatively and editorially on scripts, or putting the funding packages together. This makes me think that the notion of the distributed nature of creativity needs to be extended not only temporally, but spatially. So there isn't one 'site' but numerous sites all involved in types of collaborative labour, often themselves hierarchized, that eventuate in the TV programme. In my BBC ethnography (Born 2005b) there really was no boundary to the corporate processes, or trajectories, that together converged on, and resulted in, production — from the revolutionary reform of accounting techniques, which closely prefigured what's happened since across Britain's universities, to the explosion of audience research and marketing. All of these trajectories participate in the assemblage, the distributed event, that produces BBC television output.

Alex Wilkie: Indeed, that is something that we want to capture with the notion of distribution, alongside the symmetries and asymmetries we try to emphasise between human and non-human distributions. As I've explored in my PhD and the chapter with Mike Michael, design studios can be understood as centres of synthesis that exist in relation to other productive sites and centers of expertise, including other studios, labs, and manufacturing facilities and so on. So we have various registers of distribution operating simultaneously. Thus, rather than a Hegelian synthesis of antithetical opposites, we are here thinking and working through the synthesis and becoming of concrete and practical multiplicities.

Georgina Born: Yes, I agree. But to give another view: TV and film are clearly different in this regard from music. The music studio, like the conventional artist's studio, seems still to be a centre of a kind of alchemical material practice where certain decisions are taken in real time using faders and knobs, applying filters and reverb, and hearing the results back as close to real-time as possible. So in the music studio, as in the real time application of paint and its

immediate results, there is something alchemical in the way materials act that remains powerful and important.

But throughout my work — on IRCAM, the BBC, through to my post-Bourdieuian stance on cultural production — I've insisted that we can't understand this alchemy of real time practice in the studio without understanding the genealogies that inform it (Born 2010b: 16, 25, 27).[2] Every creative practice that I've encountered is relational in time: constituted in relation to other, prior practices. This requires deciphering the genealogy of current practices, whether of movements, groups, individuals or materials. The relationship is complex; in my work on art-science, for instance, I encountered artists who claimed that when they work, at a certain point, they have to bracket out the historical influences bearing on their work, or they could not act. However, in saying they bracket these influences, they acknowledge their reality. Another talked about 'firstism', or 'genre-hunting': looking for the next thing, in light of the past. I've been reading a thesis by Luke Skrebowski (2009), an art historian, on post-conceptual art. He makes a reading of conceptual art's several genealogies: what they 'protend' or hold out for the present, and how differently they're being remixed in art of the present. What I find missing in Bourdieuian and Latourian work is any understanding of this temporal situatedness, which is absolutely not to be deterministic or to foreclose what any individual or collective can do. But it is to say that it isn't ex nihilo: it doesn't begin from nowhere.

Alex Wilkie: You present a powerful critique of Bourdieu (Born 2010b), which chimes with my reading of Donald Schön, whose booklet on pedagogical practices in architectural design studios fails to account for the emergence of new design practices. The master teaches the student, the student mimics the master, and so pedagogical practices are reduced to imitation. How new practices emerge, however, remains a mystery, as in social practice theory generally. This connects, if I understand you correctly, with your interest in histories of the present.

Georgina Born: Yes, but it's also a critique of the lack of attention to time in ANT. In my contribution to the book 'The Social After Gabriel Tarde' (Born 2010a), I develop a Tardean approach to time. I argue that you can't have a Tardean account of imitation, repetition or circulation without noticing their temporal dimensions. When we come to any genre of practice, especially artistic and musical practices, the temporal dimensions are striking; yet this aspect is absent in almost all sociology of art. Bourdieu gestures at the specificity of certain historical moments and genres in the 'Rules of Art'; but this doesn't enter his theory! In my work I've used the anthropology of time, which has been saying for years that we have to understand time as multiple, to address multiple temporalities in cultural production. In Alain Pottage's reading of Latour, the idea of the network entails the assemblage itself producing time and space; yet despite Latour's debt to Tarde, time is not something that he's developed — hence the gap between his reading of Tarde and mine. Latour's stance is to forbid any notion of a 'transcendant' time or space, so the focus is strictly on the constitution of space and time by the assemblage. In contrast, in my current work on digital musics, but going back to my work on IRCAM, in addition to the obvious way that time is constituted in practice, in the studio, there are other very material ways in which time is being produced through the mutual modulation of multiple temporalities.

Let me expand on this through an example. For twenty years there have been two dominant software paradigms in digital music production. The first consists of the digital audio workstations (DAWs) exemplified by Ableton Live, ProTools, Reaper and so on. These commercial software packages favour the temporal paradigm of sequencing, along with sampling and looping — skeuomorphic digital inheritances of analogue techniques that are represented in the horizontal, left-to-right flow of time across the screen. The second paradigm consists of programming environments for interactive music and multimedia art. These allow the synthesis, processing and analysis of sound and image in real time, and usually come in one of two forms: text-based languages like Supercollider, and graphical programming languages like Max. These real-time environments model time in a completely different way, making it difficult to concatenate events in an ongoing sequence or flow. Instead they favour interactive, performance-oriented work focused on the 'now'. Max is by far the leading product in this paradigm; it was written at IRCAM in the late 1980s, and commercialised by Cycling'74. For two decades these two approaches have been pretty stable; each embodies a particular paradigm at once of human-computer interface and of musical-temporal imagination.

However Max and Ableton Live have been converging: from the release of Live 8, in 2009, Live software has offered an optional add-on, Max for Live, which integrates the two paradigms, allowing you to use Max as a plug-in editor for Live effects. Meanwhile, recent updates to Max, like Max 7, have begun to emulate the look and feel of Live in order to integrate the two architectures more firmly and make the crossover more appealing to Live users. So the materiality, the design and visual style of the two environments are transforming, making them more integrated and arguably bringing Live users — a huge market — to Max; and some commentators interpret these developments as auguring an eventual corporate merger. In other words, here software materialities are evolving, along with the musical temporalities immanent in them, in parallel with the time of the evolving relationship of the two companies. These simultaneous temporal layers bear, then, directly on practical musical 'temporalizations' in the studio, requiring us to be interested in long term corporate arcs and mutating technical paradigms as they inhere in dominant software packages.

So back to Latour: it isn't enough to analyse what I've depicted just now as he would — as a dimension of the space-time produced by the studio itself as a hybrid assemblage. We have to be interested in the larger temporal arcs, and the conditions, that mediate enactments in the studio, just as we also need to acknowledge how the musico-temporal practices of the studio – – that is, making music — in turn mediate those wider corporate strategies. This is a bidirectional model of mutual mediation. In theoretical terms, I combine several sources in this stance. One is the work of the anthropologist Chris Pinney, who works on Indian visual cultures, particularly the history and ethnography of vernacular Indian photography. Pinney has been a vocal advocate of the analysis of multiple temporalities, with reference to Kracauer and others, and resists the reduction of the time produced by the object — the photograph — to wider political times. Instead he argues that the photograph, the art object, is itself engaged in the production of time, while being committed also to the analysis of genealogies and genres. This is great to work with.

Another source for my thinking about time is William Connolly's 'A World of Becoming' (2011), where he develops process theory in interesting ways. Connolly speaks of multiple trajectories — biological, cosmological, material and social — in theorising process and event. His view is that the way these trajectories interact produces many potential outcomes, that together they produce emergence through the synergies enlivened by their 'pluripotentialities'. I've developed similar ideas by extending Gell's reading of Husserl, especially Husserl's notions of 'protention' and 'retention' by which he conceives of the co-production in the present of both futures and pasts. In this account any object, any musical event, any result of a studio practice itself entails or engenders potentialities or futures: what could occur next. This is to think time in terms of both the genealogies that subtend current practices, and the opening out of new possibilities. I think this accords with your post-humanist idea of the studio as irreducible to the subjects that gather there. But it also throws light on traditional humanist problems; for example, I've had to address recently the question of what the 'event' of John Cage is, through not only what 'goes into' Cage, but the protentions — or pluripotentialities — that he has enlivened in music and art since at least the late 1950s.

Alex Wilkie: Yes, we certainly share an interest in how process theory can be employed to understand the multiplicities and becomings of studio life. On that note, I'm also interested in your approach to creativity, which draws on the work of A.N. Whitehead, as well as how your work informs an understanding of anti-creativity, something Andrew Barry points to at the end of his book 'Political Machines' in relation to your IRCAM study and your argument about how cultural institutions routinely effect 'mobile stasis', stabilising or resisting creative invention.

Georgina Born: From the start, Andrew and I were fascinated by the challenge of coming to some kind of judgment about what we're researching — a core problem for the sociology of art and science. What distinguishes the social sciences from the humanities is that the humanities start out with an a-priori belief in value. Musicology, for example, hasn't changed its stance on this in the last hundred years: the analyst takes an established or neglected figure whose works are then read in order to vindicate, and elaborate an exegesis on, the value of their work. The sociology of art has dilly-dallied with this problem, often espousing value neutrality. My approach differs from both: I don't think the problem of value judgment can be dodged, and it has to be developed by a methodological hybrid. This begins by tracing ethnographically how the actors — musicians or artists — conceive of value and believe that their own work somehow makes a difference, or does something interesting. When you study cultural production, whether in an institution or a studio, you are confronted with people making stuff, say, composing music, and what their creative values are: what they think is significant in the recent history, say of music, and how they locate their own work in relation to that. I've found this to be universal, if sometimes implicit, and it's something that any sociologist of art, music or culture must engage in eliciting.

To do this I developed what I call an analytics of invention in three steps, which I can illustrate by way of IRCAM. First, as before, you understand the actors' own genealogy: the genre or genres that they see their practice as participating in and departing from. IRCAM

espoused a particular post-serialist genealogy of musical modernism, a canon and a set of generic expectations with which its musician population broadly concurred. Second, you trace the actors' temporal ontology, their philosophical constructions of cultural-historical time — here I draw on the art philosopher and theorist Peter Osborne (1995). By tracing IRCAM's institutional discourse as well as that of my IRCAM subjects, it became obvious that the culture espoused a modernist temporal ontology, one oriented to the future and centred on innovation, the new, progress, rupture and so on. Third, you consider the actual output of creative practices: at IRCAM, the music being produced. By listening, it was possible to tell how the music being made there related to, built on or departed from IRCAM's modernist genealogy. In other words, this allows you to ask: how does this music relate to the genealogy the actors themselves have elected as the history of their musical practice? Does it introduce difference and do interesting things, moving this genre along, or not? But you can also assess whether the music actualises the governing temporal ontology — by enacting 'the new', 'rupture', 'innovation' and so on — or not. In this way, as ethnographer, you form a subtle analysis, and on that basis a judgement, about the extent to which the music moves the genre along or simply prolongs it, and about whether it confirms, or not, to the actors' own understanding of history — in the case of IRCAM, its modernist expectations.

In my book, as a result of this approach, I came to the view that the sounds and aesthetic forms that characterised IRCAM music were continuous with the post-serialist lineage that had been around for decades: in my analysis, IRCAM music wasn't adding to this aesthetic lineage, wasn't moving it along. So music was being made, something was happening, but in a way that tended to reproduce the existing lineage or genre without new aesthetic interest. I summarised this situation, controversially, as a 'mobile stasis'. The point was that if modernist claims — to newness, rupture, innovation — were being made, then this was not evident, indeed it was contradicted, musically. I've theorized this since by pointing to four orders of time in music, arguing that you can also analyze the way a particular lineage or genre evolves, the rate and the kinds of aesthetic change that it embodies; on this basis, for any musical object or event, you can then see if it is continuous with the genre's curve or if it departs markedly from that curve. If it does depart, then the term 'inventive' might be justified. As I said, this is a hybrid method: it takes seriously researching the perspectives of the actors themselves: how they conceive of value, what they are trying to do; it then locates those aspirations within a wider ecology. It moves, finally, to the kind of interpretive judgment, of value, that is assumed by humanist scholarship — but only on the basis of the previous steps, and thus offers an enhanced interpretation.

One criticism that comes up is that this approach is thoroughly modernist, by valorising difference as opposed to repetition in generic change. A quick retort is to point out that the movement between, or combination of, difference and repetition lies at the heart of all creative practice — indeed of life itself! But a footnote in my post-Bourdieu paper counters this charge more elegantly, pointing out that the same method works for mass and popular culture — like popular music, or the television I saw being made at the BBC. First, one has to understand the temporal ontology that prevails in these production cultures, and in these fields there's no premium on innovation of a modernist kind. Rather, there's something more subtle going on: the attempt to produce difference, interest, that extends the form that exists but without any self-conscious 'innovation' or 'rupture'. So the best kind of mainstream popular

music or great popular television seems to have this uncanny knack of producing a kind of difference, reinvigorating the genre and opening out new potentialities, new futures, without announcing itself as such and certainly with no modernist dimension to it. In my BBC ethnography, I analyse this situation for the BBC's popular drama series and serials (Chapter 8). The ontology that prevails in those cultures, in my ethnographic experience, involves a kind of involution: difference is wanted, but it's difference that conceals itself, by folding itself into the ongoing, self-propelling constellation of the genre. This is not modernist at all, and nor is my analysis of it.

Another example of how this hybrid method is useful in our MusDig work on digital art musics concerns recent eruptions of neo-avant-garde and neo-modernist ontologies. This is evident in the writings of the speculative realists Ray Brassier and Robin Mackay about the work of sound artists Florian Hecker and Russell Haswell. Brassier and Mackay are energetically re-coining modernist ideas, reclaiming avant-garde status for the work of these musicians. Now that's an interesting problem in itself: what do we make of people reiterating arguments made fifty or even a hundred years ago? Then you listen to the music and observe the practices of these and other musicians, and you find what I call minor variation: practices that remix and depart from what's already been done, but in only minor ways. This fascinates me. I link it, partly, to the massification of these fields. Rather than seeing heroic departures of a modernist kind, then, I myself see what is happening globally in terms of populations or clouds of practices that are drifting, bifurcating, moving as a whole. There is certainly a tension, then, between how I'm analysing what's happening and the neo-modernist claims of exegetes like Brassier and Mackay.

Alex Wilkie: What is emerging here, then, is your preoccupation with temporality and the ways in which the modulations of practice, typically technical, and the performativity of artworks are themselves bound into the temporal tendencies of styles or certain historicities of aesthetic practice and sensibilities.

Georgina Born: Definitely, and to understand this, my researchers and myself can't help but use the concept of genre or something similar, like aesthetic formation. This is for two reasons. The first is that we see the same materials, the same technological and studio set-ups, being used in radically different ways and to very different aesthetic or musical ends. So here we need a notion of aesthetic trajectories, or of genre, because something is forming, or governing, how very similar material assemblages are being used aesthetically. The second point comes to what I just spoke about, the production of generic movement. To be Tardean about this, in our MusDig work on digital art musics we're seeing lots of imitation, as well as the hybridisation of distinctive genres: that's how novelty or movement seem to occur, as well as what I spoke of as minor variation, sometimes budding off to form quite strongly bounded communities of practice, or genres, sometimes producing rather merged, shifting, boundary-less clouds of related practices.

Let's take the broad area of hacking, circuit bending, glitch, noise and so on: a vast, emergent universe of practice in which the very definition of these practices is contested. Moreover, there's lots of overlap between them, and the adherents hang out together. Yet each scene has its own organic intellectuals — Nick Collins or Reed Ghazala for circuit bending, Yasunao

Tone or Merzbow for noise; they have their own historicities, their own genealogies. What I find now is that lots of practitioners who broadly come from somewhere in that space are taking it in new directions, in their practice, but in only a minor way — not radically distinctive ways. So there's a dynamic of change in which these minor variations take what are already inchoate genres, and take them in new directions, which are also inchoate!

To give an example: there's a musician who did his PhD at Goldsmiths in music, who is familiar with Atau Tanaka's and Bill Gaver's work and comes out of the electronic studio tradition at Goldsmiths. I encountered him as a member of LLEAPP, the Live Laboratory for Electronic and Audio Performance Practice, a scene that emerged among PhD students at British universities. Basically, it consists of these folk coming together to rehearse or perform collaborative improvisations, each of them bringing their individual set-ups, trying to hone a collective practice of performance in real time. That's how I met him, and his project is to endow a game-console-based set-up, a take on circuit bending, with a kind of loop-based recursivity in relation to its own sound production, by interlinking variables to produce something sonically very unstable and rich. I have to say that this is engaging; but in the broad scheme of all that's out there transnationally or on the net in this area, it amounts to a tiny intervention. When I probe what he thinks his practice is, he doesn't call himself a composer; maybe, he says, he's a researcher; is this practice music? It's unclear. His practice, and that of LLEAPP, is somewhere between rehearsal and performance, and in this sense there's an ebbing away of the distinction between preparation and performance, studio and live event, participation and audience. You can see how indistinct the boundaries between performance event and studio practice are becoming.

Recently I've turned to Hans-Jörg Rheinberger's (1997) work on experimental scientific systems to understand these processes. In Rheinberger's analysis of laboratory experimentation he talks about the 'intrinsic' time and multiplicity of these systems which undergo 'continuing cycles of nonidentical reproduction', resulting in 'drifting, merging and bifurcating'. This fits perfectly what I'm observing. He identifies what he calls, with reference to Derrida, 'differential' reproduction, the minute production of difference and deferring, which he argues gives experimental systems their generative power. I find this, by analogy, tremendously interesting for what I'm observing, which, as you discuss in your introduction, is far from the temporality of heroic modernism that is often claimed for — or imposed normatively on — art and artists.

Alex Wilkie: Of course, the elephant in the studio, and for studio studies, is aesthetics, which is often ignored and not accounted for, and which is certainly very different to representation in scientific practice. This connects strongly with everything you've been saying, and your interest in understanding practice in relation to genre.

Georgina Born: Yes, that's right. And let me offer another example. I'm very taken by Fernando Rubio's (2012) piece on Robert Smithson's Spiral Jetty; it's very powerful. However, imagine the additional weight his analysis would have if he'd located Smithson in relation to the kind of artistic practices Smithson was bound up with: how his practice emerges from his relation to conceptual and post-conceptual art, the move beyond certain kinds of formalism. To grasp this, as one crucial mediation, would add to our understanding,

not detract from Smithson's inventiveness, which lies in how he augments the potentialities in those lineages. Without this added historical or genealogical perspective, it seems to me, there's a kind of mystification of Smithson's practice when it's extracted from that analysis of his milieu.

What we're finding in our MusDig work ubiquitously is that accompanying the burgeoning new digital music practices are efforts, often contested, at remaking the musical past. At the time of my IRCAM study there was a very fixed, canonical understanding of 20th century music. But during the 90s this began to crumble, and since then there's been an energetic revisionism that completely recasts late 20th century music. Brassier and Mackay, for example, are rewriting French music from the 70s on, so that Xenakis becomes the most important figure while Boulez is denigrated, dethroned. In parallel, from a more mainstream standpoint, there's a collection called 'Audio Culture' by Christoph Cox and Daniel Warner: a revisionist account of music history from Varèse and Schaeffer to the 2000s that's been hugely influential. So there's a research challenge centred on questions like: what are the dominant genealogies? How do they bear on present practices? And how are these genealogies evolving or mutating in the present? But we also have to return to my reworking of Gell's Husserl, because what's happening in the present is at the same time a re-casting of the past and an envisioning of new futures — and all of this is bundled up in creative practices themselves, in the studio.

So one methodological point is that there *are* aesthetic canons: they are taught and institutionalised, they close down how people see things, and then they get blasted open again. And we happen to be at a historical moment in music where the canon is being blast open. So, as ethnographers, we should analyse the canons that prevail. What are their contents? How do they persist? But we should also allow for fuzziness, for complexity. On this score, we developed a method where we asked musicians to describe the genealogy of their own practice. There's a prominent musician called Mark Fell, part of a duo called SND, a major international figure. I interviewed Mark and we became excited about reconstructing his aesthetic genealogy, what influenced him and got into his work. Having recorded hours with me, he wrote it up himself and put it online, adding illustrative tracks. By recovering artists' genealogies in this way, then, one produces a decentred account with multiple perspectives; and this adds complexity to the books and articles that are strenuously trying to reshape the canon by redrawing dominant aesthetic genealogies.

Alex Wilkie: I wonder, reflecting on my own work, how the 'genealogies' of design might be distinctive from those in art and music?

Georgina Born: My sense is that most fields of cultural production have their own genealogies. Take art-science, an emerging field that overlaps with bio-art, robotic art and so on. So does it even exist as a category? But actually, when you ask a range of practitioners, they disclose quite similar and recognizable landmarks in this putative field. And when I listened to the pedagogy, sitting in on classes in the art-science masters at UC Irvine, the genealogy is there in the teaching of histories and philosophies of the field; artist Simon Penny, directing the course, conveyed a rich and inventive genealogy of what one might imagine as the forerunners of such a field — from Duchamp, to early British cybernetics, to

the Bauhaus, to A. Life, to what he called behavioural aesthetics (Born and Barry 2010). Interestingly, in Andrew Barry's current work on political geography and in his book on the BTC oil pipeline, he's realized that he, too, needs to take account of genealogies — but here genealogies of political events, or of genres of political events. His point is that when you're doing research on the politics of an oil pipeline, mired as it is in controversies, disputes, demonstrations, actions and so on, what you encounter are not entirely novel political events but types or idioms, even genres, of event: event-forms, we might say, that themselves have histories that are being invoked, and at the same time remediated, in the present event. For Andrew, the political actions organised by Platform, the London arts and research collective,[3] for instance, invoke a genealogy of similar kinds of actions. This is to say that they are informed by, yet irreducible to, a history of such practices. So in design, even if it's not articulated as such, I imagine that there are genealogies, lineages, genres that cohere and that are broadly invoked in various ways in the teaching of design.

Alex Wilkie: So we come full circle, back to institutions and the relationship between the studio and the academy, practice and teaching. Here, practitioners in design and the visual arts often have a very different relationship to the academy, since universities don't typically offer studio space, compared to STEM disciplines, let's say, where technical facilities and resources are necessary. Studios are often elsewhere.

Georgina Born: Yes, but I would offer a slightly different view. Genealogies are not confined to the academy, or to institutions. One take on what you're saying is that the relation between art practice, and its teaching, and art history has never been close. The same is true in music — although arguably, the work I do bridges the two, aspiring to be a kind of musical history of the present. Among my first attempts was the IRCAM study, though my BBC and art-science ethnographies were similar: pursuing a genealogical approach that complements the ethnography of contemporary practices, so as to feed the resulting analyses in an immediate and intimate way back to practitioners, opening a dialogue with them that is, precisely, open. This is very different to the relationship that prevails between contemporary art practice and art history, and you're absolutely right that this split is institutionalized in the difference between art schools and universities. The Slade at UCL is possibly one of the very few historical pivot points or crossovers between these domains. A propos, right now I'm reading a book on the history of computer art and how artists first got into using mainframe computers, and in the UK the Slade figures prominently. Why? Because during the 1960s, it was artists at the Slade who could obtain easy and rapid access to mainframe computing.

Conducted in Cambridge by Alex Wilkie in October 2014

Notes

[1] See http://musdig.music.ox.ac.uk: 'Music, Digitisation, Mediation: Towards Interdisciplinary Music Studies', a five-year research programme funded by the European Research Council and directed by Born.

[2] The term genealogy here is not identical with Foucault's genealogy, although it shares certain premises with it, in as much as it is concerned with discerning, in relation to cultural production, the precursors of present practices in non-teleological and irreductive terms.

3 See http://platformlondon.org.

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