Artistic Research and Music Research
Epistemological Status, Interdisciplinary Forms, and Institutional Conditions

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In this paper, I want to address some large questions by holding up aspects of the history of music research (MR) and what can be gleaned from it against the current discourse on artistic research (AR). Moving between music research and artistic research comparatively in this way opens up fruitful insights and lines of enquiry. The focus will be on scrutinizing the epistemological and interdisciplinary status of both artistic research and music research and, in the last section, on the institutional conditions that have been conducive to their efflorescence.

I begin by addressing these issues through the work of the influential exponent of and commentator on artistic research, Henk Borgdorff. To address AR's epistemological standing, Borgdorff draws on the historian of science Hans-Jörg Rheinberger. He sets it up like this, with reference to one of Rheinberger's key concepts, 'experimental systems':

> "In his study of the history and practice of research in the natural sciences, Hans-Jörg Rheinberger has demonstrated that 'experimental systems' are the centre and the motor of modern scientific research. Rheinberger's historical case studies, extending from the pre-war genetic experiments to present-day molecular biology, show that the dynamics of experimental systems can only be understood as an interplay of machines, preparations, techniques, rudimentary concepts, vague objects, protocols, research notes, and the social and institutional conditions in which these are employed […]. Experiments are the actual generators of [the resulting] knowledge – knowledge of which we previously had no knowledge at all. Experimental systems

> are 'machines for making the future', as Rheinberger (2006a: 25/28) has observed." (Borgdorff 2016, 189)

Borgdorff continues by introducing Rheinberger's second key concept: "Experimental systems are characterised by the interplay and entwinement of 'technical objects' and '*epistemic things*' – the technical conditions under which an experiment takes place and the objects of knowledge whose emergence they enable" (Borgdorff 2016, 189; emphasis added). And he goes on,

> "Rheinberger speaks in this context of a synchronic intertwinement of the epistemic and the technical, and of a diachronic intertwinement of difference and reproduction. Rheinberger has deliberately chosen the term 'thing' rather than 'object', in order to signify the indeterminate, not yet crystallised status of the knowledge object. Epistemic things are 'chronically underdetermined' (Rheinberger 2008: 14´30˝). Experimental systems must be sufficiently open to allow these indistinct things to come into view; enough space must be present *to produce what we do not yet know*. This openness and room for not-knowing, or not-yet-knowing, cannot be imposed by stern methodological procedures. As Rheinberger points out, serendipity, intuition, and improvisation are at least as important in laboratory practice as the attempts that are made to stabilise the technical conditions in which experiments take place." (Borgdorff 2016, 190; emphasis added)

It is at this point that the parallels Borgdorff wants to draw between scientific experimental systems and epistemic things and the practices of AR come into view. He suggests:

> "The artistic research programme is a case where we acknowledge from the start that the research 'object' or 'issue' does not have a fixed identity – which invites, in principle, unfinished thinking. Due to the nonconceptual content of artistic research – the fact that what is at stake can only partially be 'captured' discursively – it evades any definitive epistemological 'grip', while at the same time opening up a perspective on what we do not yet know. *'Artistic things' are epistemic things par excellence; they create room for that which is unthought*." (Borgdorff 2016, 181-82; emphasis added)

I have quoted at length to convey how fully Borgdorff explores the parallels he wants to draw between AR and Rheinberger's epistemic things, and thus far these parallels are evocative and convincing. It is later that a surprising and definitive tension enters his book when he proposes seven criteria that he argues together constitute an 'assessment framework' for evaluating AR, which he arrives at via a series of key questions posed to any AR project. Among them are intent – whether the particular artistic practice at issue is intended to be research – and originality – whether this AR practice "shows evidence of innovation in content, form or technique in relation to a genre of practice" (231). So far, so good. But when it comes to three more of his seven criteria – contextualisation, methodology, and enhancement of knowledge – a subtle shift occurs, because all three as he discusses them are far closer to scientific epistemology than to existing conceptions of artistic practice. All three also have very clear foundations in academic research norms. Thus, contextualisation demands "a positioning with respect to social, artistic, and/or theoretical issues and to relevant work by oneself and other artists" (Borgdorff 2016, 235), just as in academic research. Methodology appears relatively contentious for Borgdorff and suggests a focus on the "adequacy and soundness of the methods used and the thoroughness of research, analysis, and experiment" (Borgdorff 2016, 236) – again, standard norms for academic research. Enhancement of knowledge entails, in turn, questions as to "whether or not the [AR project] provides new knowledge, interpretation, insights or experiences, and what (kind of) new knowledge, interpretation, insights or experiences these comprise" (Borgdorff 2016, 231).

Having aired these and other criteria, Borgdorff reflects: "it is a point of debate whether [the] experiential component of artistic research – the aesthetic experience – can be considered to belong to the space of reasons. *Or does this experience, which, although cognitive, is non-conceptual and non-discursive, have no epistemological bearing?*" (Borgdorff 2016, 234; emphasis added). This revealing and frankly rhetorical reflection surely indicates the fragile nature of the suture that Borgdorff is attempting to achieve between academic and scientific research epistemologies, on the one hand, and the emergent, as yet unconsolidated terrain of AR epistemology, on the other. In effect, the more exploratory, experimental avenues that he has opened up via Rheinberger give way to longstanding normative tropes – thoroughness or rigour, soundness of method, new knowledge and so on – and the chasm between them is left failingly unbridged. I use Borgdorff's aporetic text to

point to the elusive nature of the epistemological claims that have been made for artistic research, as well as the ambivalence that seems to arise in discussions of these claims. Can AR be argued to have epistemological properties akin to those of scientific research? Borgdorff, a leading theorist and contributor to the discourse on AR, appears unresolved on this matter. And this should surely prompt us to question what is to be gained by the very project of drawing analogies between AR and scientific research.

When it comes to music research (MR), the picture is different. This is because the history of MR is tightly bound up with certain kinds of interdisciplinary endeavour between musicians and composers, on the one hand, and scientists and technologists, on the other. Hence, the whole question of whether MR can claim strong epistemological foundations for its 'research' component has, in a sense, been overdetermined or finessed by the far more obviously scientific and technological nature of MR. A central thread of the history here has been captured by Hannah B. Higgins and Douglas Kahn in their book *Mainframe Experimentalism* (2012). They write of the 'long' 1960s that this "was a time when simple access to computers was determined by institutional rather than consumer logics. These institutions [including corporate centres like Bell Labs and university computer laboratories] inhered to geopolitical, military, corporate, and scientific priorities that were not immediately or obviously amenable to the arts. For those artists [and musicians] lucky enough to find access to these computers, technical requirements mandated the expertise of engineers, so the process was always collaborative, yet rarely sustainable over any great length of time" (Higgins and Kahn 2012, 1). My book *Rationalizing Culture* (Born 1995) updates the picture to the 1980s through an ethnographic study of IRCAM, the world-leading computer music research institute in Paris founded in the late 1970s by the composer Pierre Boulez. At the core of my book is a portrayal of the close entanglement between engineers and composers in a formative period of the emergence and academic institutional consolidation of MR.

In my book I show how, by the 1980s, 'music research' had come to be equated with an expansive array of interdisciplinary engagements between musicians and composers, on the one hand, and computer scientists designing music software, engineers designing computer hardware, and scientific specialists in the fields of psychoacoustics, acoustics and room acoustics, on the other. I chart the intimate modes of everyday practice whereby software designers proffered tools to be tested out by composers and thereby re-de-

signed, and the complex division of labour in which composers were to be both served and 'tutored' by scientists and technologists in order to be able to work with the programmes and machines. These interdisciplinary practices had much longer roots in the experimental practices developed between music and computation, as the contributors to *Mainframe Experimentalism* show. And in the three decades since my study this form of interdisciplinarity has consolidated, becoming characteristic of the academic electronic and computer music fields in the present. In fact, it has both expanded and generated a novel autonomy on the technoscientific side, in the guise of the growth of university centres for MR that have no representation of creative practitioners – composers or musicians – but revolve primarily around funded engineering research, often linked to industry. In the UK the leading example is the Centre for Digital Music based at Queen Mary, University of London.[1]

Crucially, as a result of this partnering with scientific and technological development, the epistemological status of MR appears clearer and less in doubt than that of AR. Music, it seems, can get caught up in orthodox forms of technoscientific research in ways that make it relatively obvious and easy to make claims about MR's scientific status. However, three key qualifications have to be made here immediately. First, this particular form of music-technoscience interdisciplinarity is in fact less interdisciplinary than multidisciplinary, for it is often based (as at IRCAM) on the institutionalisation, and therefore the prolongation, of a division of labour between composer or musician on one side and scientist or engineer on the other. In such an arrangement, neither side of the music-technoscience division of labour is likely to undergo significant transformation on the basis of their interdisciplinary engagement; rather, the skill sets and their associated epistemic underpinnings tend to reproduce themselves, becoming rigidified. In fact, in practice this favours what Barry and Born call a 'subordination-service' mode of interdisciplinarity (Barry, Born, & Weszkalnys 2008; Barry & Born 2013, 10-12) in which science and engineering are brought in apparently as subordinate disciplines to 'serve' what are assumed to be the pre-existing, autonomous creative 'visions' or 'needs' of composers and musicians. Such a mode also, therefore, embodies and buttresses the longstanding idealist model of the musical work in which the composer-as-hero is assumed to be

1 See the website of the Centre for Digital Music: http://c4dm.eecs.qmul.ac.uk

the sole repository of creative genius and to require support – the input of scientists and engineers – conducive to its unsullied expression (Goehr 1992; Born 1995).

It is only from the late 1980s through the 1990s that an alternative model of interdisciplinarity developed in this area – that of 'interdisciplinarity in one person' (Barry & Born 2013, 29) – because of the increasing availability and affordability of laptop computers and related software applications, enabling individuals and groups to 'skill up' and develop personalised computing environments or to work with standard music platforms and languages, including real-time languages for music synthesis, composition, performance and improvisation like SuperCollider or ChucK. 'Interdisciplinarity in one person' signals the arrival of MR practitioners who are themselves able to cross the boundary between music and technoscience, and therefore able to foster creative directions spanning this boundary (Dean 2009; Haworth 2018; McLean & Dean 2018). This kind of approach is based on premises such as "live music-making [as] a rich open task requires a rich open [computer] interface" (Stowell & McLean 2013, 1); that is, it espouses the intrinsic entanglement, the necessary co-dependence and co-evolution of creativity in both musical and technological practices. Attesting to the growth and maturity of this broad position within MR is the appearance over the past fifteen years of an annual conference and interdisciplinary field devoted to these practices called NIME.[2]

A second qualification is that the predominance of the type of interdisciplinarity described between music and technoscience tends to detract attention from other kinds of interdisciplinarity in which music has been and might become entangled – for example, music's interdisciplinary opening to philosophical and literary currents, or to other areas of science such as the environmental and ecological sciences and humanities (Rehding 2002; Pedelty 2013; Allen & Dawe 2015; Devine 2015). The simple awareness of the existence of interdisciplinary currents of MR less oriented towards, and even critical of technoscience effects an important rebalancing with regard to the spectacular visibility and audibility of technoscientific MR. And this raises the third qualification: the down side of technoscientific MR. For the partnering between music composition and performance, on one side, and science and engineering, on the other, brings serious risks of instrumentalisation

2 New Interfaces for Musical Expression: http://www.nime.org/

given that, through this multidisciplinary partnering, music gets ineluctably caught up in and mediated by the industrial and commercial logics and dynamics fuelled by technoscientific 'innovation'. This 'innovation' telos is in fact a far more common and general driver for interdisciplinarity and is associated with what Barry and Born term a "logic of innovation": in short, forms of interdisciplinarity motivated by goals of boosting economic growth (Barry & Born 2013). An obvious example today, in music, is the global development of the academic field of Music Information Retrieval (MIR) (Schedl, Gómez & Urbano 2014), which styles itself a scientific field based on extensions of AI into music, including machine learning and 'computational intelligence', but which also informs the design of 'real world applications' like the recommendation algorithms driving global commercial music streaming services like Spotify, last.fm and Apple Music (Drott 2018a; Drott 2018b).

Returning to the epistemological status of artistic research, and in light of the central role of interdisciplinarity in legitimizing the epistemological standing of music research, we can now ask: how does Borgdorff portray interdisciplinarity in relation to AR? When we trace Borgdorff's statements about AR and interdisciplinarity, another ambivalent picture emerges. He draws positively on the legacy of Nowotny, Scott and Gibbons' paradigm of 'Mode 2 knowledge production', which advocates a strong form of interdisciplinarity (Nowotny et al. 2001). According to their well-known account, a "transformation is occurring in the relationship of science and society", an epochal shift from a culture of scientific autonomy to a culture of accountability, where the latter is accompanied by a growing diversity of sites at which knowledge is produced and by the increasing importance of what they call the "context of application" as a site for research – how "problems are formulated from the very beginning within a dialogue among a large number of different actors" (Nowotny 2004, 1). Nowotny et al. therefore propose that "much of the thrust of innovation is coming from new links between traditionally segmented producers and users. Moreover, this contextualization of research around the interests of stakeholders fosters a more 'socially robust' [and reflexive] knowledge that transgresses disciplinary and institutional boundaries" (Nowotny et al. 2001, 67). On these grounds, Nowotny and her colleagues encourage what they call transdisciplinary research which, they contend, is not derived from and transcends the boundaries of pre-existing disciplines.

Reflecting on these ideas in relation to artistic research, Borgdorff considers initially how Mode 2 might be thought to be characteristic of AR. In this vein he speculates as follows:

> "Especially the type of artistic research that combines the aesthetic project and the creative process with questions and topics from broader areas of life (such as globalisation, identity, gender, or mediality, to mention some common ones) may be characterised as transdisciplinary research if the synthesis achieved in the artwork has something additional (or different) to offer, both conceptually and perceptually, as compared to the outcome that would have resulted from a disciplinary approach." (Borgdorff 2016, 92)

Yet ultimately, Borgdorff is sceptical. Regarding Nowotny et al.'s suggestion about the increasing heterogeneity of institutions and spaces of research, he responds that "the bulk of the creation and transfer of knowledge […] articulated in artistic research still occurs in settings built for artists – studios, theatres, filmhouses, music venues, performance spaces, and galleries, which, for all their differences, are characterised by a certain organisational homogeneity" (Borgdorff 2016, 93). Regarding the greater reflexivity and accountability of Mode 2 knowledge production, Borgdorff replies that "the agenda of artistic research seems to run counter to this kind of accountability and reflexivity [since] art often takes an antithetical stance towards the existing world, and it delivers the unsolicited and the unexpected" (93). And regarding any putative prevalence of interdisciplinarity itself, he comments briskly that "*intra*disciplinary research (within the frameworks defined by a particular discipline) is also very common in the realm of the arts" (Borgdorff 2016, 92). Moreover, "the sui generis nature of artistic research practices can actually be seen as casting a critical light on the very dichotomy between Mode 1 and Mode 2 as put forward in Gibbons et al." (95). In sum, he contends, the main characteristics of Mode 2 knowledge production – "context of application, transdisciplinarity, heterogeneity and diversity, accountability and reflexivity […] – thus apply to artistic research only some of the time, and usually not at all or only partially" (94). For Borgdorff, in short, artistic research has no necessary relationship with interdisciplinarity whatsoever.

If we turn to a very recent paper by Rheinberger, however, he gives a different view, and one that adds to our understanding. He distinguishes between two types of engagement between art and science: the exoteric

and the esoteric (Rheinberger 2019). The former, the exoteric, comes close to that instrumental arrangement identified earlier in relation to MR: Barry and Born's 'subordination-service' mode of interdisciplinarity (Barry & Born 2013). But where, in MR, science and engineering are often portrayed as serving musicians' artistic goals, in AR it is the obverse. Here, in AR, it is the artist that is subordinate to science, engaging with the products of laboratory work to explore and enhance "aesthetic aspects of [the] research products" or with the "technologies of data generation and visualization themselves, that is, with the *means* and the *media*" of the scientific practice in order to aestheticise the scientific products or results of these 'means' (Rheinberger 2019, 242). As Rheinberger comments, in this "confrontation between epistemology and aesthetics, the exchange process remains for the most part unilateral [or one-way]. […] The scientists of the involved laboratories […] remain frequently spectators" (Rheinberger 2019, 243), while the artists are expected *not* to engage in deep epistemological ways with the scientific process itself but, rather, to aestheticise or prettify scientific outputs so as to make them palatable to the public and to funding institutions. Such aestheticising forms of artistic research have often been associated with programmes and policies aimed at fostering the "public understanding of science" (Barry & Born 2013; Born & Barry 2013, 252-255). They represent, as Rheinberger acknowledges, an extremely limited version of the potential engagement between artists and scientists, and they contrast markedly with those artists (or art-scientists) who themselves attempt to develop 'interdisciplinarity in one person' by becoming profoundly involved with the scientific field they choose to focus on and thereby capable of innovative interventions in the *science* of those scientific fields in more than 'prettifying' ways. Exemplary of such an alternative practice is the art-scientist Beatriz Da Costa's interdisciplinary work in the field of air pollution monitoring. Da Costa's work provides an urgent model of how aesthetic, scientific-epistemological and political ambitions can be combined and results achieved in ways that confound the 'subordination-service' mode of interdisciplinarity. Instead her work exemplifies what Barry and Born call an 'antagonistic-agonistic' mode of interdisciplinary practice, one that envisages and promotes ontological shifts in the very nature of art, science and politics through an extraordinary and transformative art-science interdisciplinarity (Barry & Born 2013, 12-13; Born & Barry 2013).

Having sketched out this comparative terrain between artistic research and music research, their epistemological standing and distinctive forms

of interdisciplinarity, I want to open, finally, some important questions to do with the very ways in which these categories – artistic research, music research – and the boundaries between them have become self-evident and reified. When reading historical accounts of the arts from the 1950s to the 1970s, for example Brandon Joseph's important studies (Joseph 2003; Joseph 2008; Joseph 2016), or a book such as *Mainframe Experimentalism*, or when perusing the journal *Leonardo*, one is inevitably struck by the convergence between the arts: music, visual and performance art, film and 'intermedia' practices closely intermingle, co-exist and co-mutate. This is, of course, not news either for practitioners or for critics working in the contemporary arts. Then why, we have to ask ourselves, have the categories of artistic research and music research become separated out in the last two decades? And why have independent discourses on them developed in ways that overlook vast areas of their mutuality and overlap, not least the rich and differentiated history of music research that I have been able only briefly to allude to?

A similar question arises with regard to the status of history itself: if the category of music research has demanded and attracted a considerable amount both of historical research and, on that basis, of searching reflexivity concerning its variegated forms – although more searching reflexivity is needed, given the risks posed by the ascendance of the instrumentalised music-technoscientific orientation that I have described – then why is it that the discourse on artistic research that has emerged in recent decades exhibits little drive to base itself in a self-reflexive historical understanding, and instead adopts a more presentist perspective? Few accounts of the concept of AR begin earlier than the mid to late 1990s, so the perceived historical depth of AR as a practice or field appears to be about twenty years. Strikingly, in comparison with MR, there seems little interest in AR as a historical phenomenon and little sense of the specific aesthetic and conceptual genealogies and institutional conditions that feed into and underpin it. So why is AR generally de-historicised in its self-representation? In short, surely both the 'purification' of AR from MR and the de-historicisation of AR are problematic tendencies. In my final remarks I want to connect these observations to wider institutional conditions that may have favoured or accelerated these tendencies.

I base my comments on institutional conditions in the UK, since this is what I know best. Readers will be able to extrapolate what I write to other countries or, on the contrary, contrast my sketch with conditions they are familiar with in other territories – although it seems that Britain has exer-

cised considerable international influence in these areas in recent decades. I begin with the appearance from the mid-1990s of policies brought to bear on Britain's universities that shaped what has come to be known (perhaps reductively) as the 'neoliberal university' (e.g. Olssen and Peters 2005; Abendroth and Porfilio 2015). These policies encouraged a series of major changes by implementing marketisation and corporatisation and by turning the universities towards goals of economic competitiveness and growth, meeting social needs and fostering student employment. At the same time, the universities were subject to the imposition of what was called 'new public management', an ironic term because the techniques being introduced into Britain's public sector, including the universities, were modelled on private, corporate management techniques. Under this rubric, from the late 1990s the universities became subject to linked auditing and accountability regimes. A series of audits were introduced with the aim of measuring and delivering greater accountability to the public, external stakeholders and students, the central mechanisms being the auditing of research (see below) and more recently teaching (via the 'Teaching Excellence Framework') and 'customer satisfaction' (via the National Student Survey). To these regimes have been added a series of new policy rubrics: ideas of the knowledge economy, cultural economy and creative industries, of knowledge transfer and knowledge exchange. In turn, these rubrics are equated with cultivating innovation, enterprise, spin-offs and start-ups as well as partnerships with industry, government or the public sector. The aim has been to engender entrepreneurial subjectivities among coming generations of arts and humanities academics and graduates. From this time on, emblazoned on the home page of Britain's main funding body for the arts and humanities, the Arts and Humanities Research Council (AHRC), one encounters funding schemes designed to encourage 'Knowledge transfer partnerships' and similar projects. To gain research funding it is necessary to conform to these new rules of the game.

Particularly important was one element of the rising audit culture in the universities. It was the implementation from 1986 on of a regular audit of research across all British universities every four to six years, originally called the Research Assessment Exercise (RAE) and renamed in the last decade the Research Excellence Framework (REF). This has been a formative historical development in the universities because, for over two decades, a considerable proportion of government funding has come to be distributed on the basis of the outcome of these periodic audits: the ranking of univer-

sities according to their relative research performance. The effect has been to elevate research above other aspects of academic life and functioning. To come to the point: it is a plausible hypothesis, then, that the rise of the discourse of artistic research, in the UK at least, responds in part to this elevation of research across the British university system as a whole.

Three other developments converge with this one, strengthening this hypothesis. The first is how these changes have coincided with the intensification of a long process over forty or fifty years of the decline of Britain's independent art and design schools. In short, the public art schools have been subject in this period to closure, rationalisation and being absorbed into the universities. Previously, almost every British city had its own independent art school. Founded in the late nineteenth or early twentieth centuries, they provided trainings in technical and design trades like printing, textiles and ceramics, as well as the fine arts. From the 1960s they began, first, to be absorbed into the polytechnics, and when the polytechnics became universities in 1992, into the UK university sector. Now, most arts and music trainings (with the exception of a few music conservatories) occur within the universities – and are thereby subject to all the previous conditions outlined. In parallel, the EU Bologna Process has overseen the ascent of arts doctorates, favouring the shift of the arts in the UK into university environments that, for the reasons given, came from the late 1980s to be focused primarily on the value of research.

The second related development is how the paradigm of artistic research, as well as practice-led or practice-based research, came to be fuelled in Europe by the standardisation of higher education into a 'three cycle system' under the Bologna Process. This further catalyzed the academicisation of former vocational arts and music courses, fostering the growth of practice-based doctoral programmes across the arts and a re-siting of these doctoral trainings within universities as opposed to independent art schools. Henceforth, hybrid PhD programmes with a mandatory research element favoured 'research' practices in music and the arts. As a consequence, arts doctorates requiring a combination of artistic practice and a research component have mushroomed internationally and are the model favoured in the British universities in the arts and in music.

The third parallel development concerns a crisis in public and, particularly, governmental belief in the value of the arts and culture, including the humanities. This questioning of the value of the arts and culture was, of

course, at work in the previous developments, notably the establishment of neoliberal university policies intended to foster economic growth allied to concepts of the knowledge, cultural or creative economy. The diffuse sense of a devaluation of the arts and humanities led to a felt need for new kinds of defence of their value – beyond older academic understandings of their intrinsic value. This defensive stance is apparent in statements by 'elder statesmen' among British humanists, a leading voice being the Cambridge intellectual historian Stefan Collini. The defence is epitomised by his much-cited book *What Are Universities For?* (Collini 2012), which is publicised by the statement that "across the world, universities are more numerous than they have ever been, yet at the same time there is unprecedented confusion about their purpose and scepticism about their value" (Collini 2012, blurb). A great deal of pressure has been brought to bear on the arts and humanities through this crisis of value and legitimation. Another symptomatic outcome was the publication by Geoffrey Crossick, former head of the AHRC, of a research report called *Understanding the Value of Arts and Culture* (Crossick & Kaszynska 2016). What is striking is how this publication, under pressure to identify new sources of value and legitimation for the arts, attempts to develop new measures and rationales adapted to the audit-led neoliberal academic environment. Particularly marked is a strong sociological turn such that participation in the arts is identified as having intrinsic social value, along with a new valorisation of popular and 'amateur' cultures as well as the cultures of Britain's black, Asian and ethnic minority communities. At the same time, the report expounds the idea that the arts and culture help to shape reflective individuals, promote engaged citizens and stimulate urban regeneration. What are being proposed, then, are definitively *extrinsic* criteria of value and legitimation for the arts. While, in this writer's estimation, the articulation of these extrinsic criteria of value represents an important and positive development, since it recognises aspects of the value of the arts that have long been overlooked, it also risks a new type of sociological instrumentalisation of the arts. Overall, what I am suggesting is that the academicisation of the arts, and the turn to research, might in part be seen as responding to the wider sense of crisis over the value and legitimacy of the arts – although they also risk exacerbating this sense of crisis.

To conclude, I offer a provocative historical thesis regarding the genealogy of artistic research. If, at least in Britain, the former independent art schools are considered to have made critical contributions to the efflores-

cence from the 1960s to the 1980s both of British conceptual and post-conceptual art and of British popular culture and music, then, with the move of arts trainings inside the universities subject to the institutional conditions described, can artistic research be understood as a kind of academicised, institutionalised and normalised prolongation or outgrowth of the genealogy of conceptual and post-conceptual art? To put it humorously, is artistic research the defanging of conceptual art? In the absence of interrogative histories of these surely related phenomena, my provocation can only hang unresolved in the air. As yet we have little sense of the specific aesthetic, conceptual and – given the contributory role of art schools and universities – pedagogical genealogies that have been formative of artistic research as it has emerged today. To make explicit the implications of this chapter: we need research on these genealogies – in the full sense elaborated by Foucault (1977). Not only do we need these genealogical histories but, as argued earlier, we need such genealogies *not* to take for granted the separation of artistic research and music research, in order to explore their convergence and mutualities as well as historical divergences. Borgdorff and Rheinberger, however significant their work, position us only at the threshold of the scholarship and self-understanding that are necessary preconditions for the now-urgent debates to be had: debates about the epistemological status of artistic research and music research, about the contributions to both fields of distinctive kinds of interdisciplinarity, and on this basis – most importantly – about what these fields *could* (pragmatically) and *should* (normatively) become in the future.

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