

Collaborative and Distributed Processes in Contemporary Music-Making

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Edited by

Lauren Redhead and Richard Glover

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INTRODUCTION:
COLLABORATIVE AND DISTRIBUTED
PROCESSES IN CONTEMPORARY
MUSIC-MAKING

RICHARD GLOVER AND LAUREN REDHEAD

This volume is the second proceedings of the Royal Musical Association's (RMA) Music and/as Process Study Group. Their first publication, *Music and/as Process* sought to define the field of the study of process in music, representing the range of musicological and research activities that are undertaken by members of the study group.¹ This present collection of essays focuses on an emergent theme in the study group's activities since 2014: processes in collaborative work and distributed creativity. These essays derive from work that has been presented to the study group during this period, in particular at their annual conferences at Canterbury Christ Church University (2014), Goldsmiths, University of London (2015) and Bath Spa University (2016), and at the RMA's 52nd annual conference at the Guildhall School of Music and Drama (2016).

It is not surprising that a large number of the contributors to the Music and/as Process Study Group are active practitioners in the performance and composition of contemporary music. In recent years, musicology has undergone what Georgina Born has described as the "practice turn":² an acceptance that the practice of music (and what Christopher Small termed "musicicking"³) is not only central to its understanding but, in fact, *is* its

¹ *Music and/as Process*, ed. by Lauren Redhead and Vanessa Hawes (Newcastle: Cambridge Scholars, 2016).

² Georgina Born, 'For a Relational Musicology: Music and Interdisciplinarity, Beyond the Practice Turn: The 2007 Dent Medal Address', *Journal of the Royal Musical Association*, 135.2 (2010), 205–43.

³ Christopher Small, *Musicking: The Meanings of Performing and Listening* (Middletown: Wesleyan University Press, 1998).

understanding as a result of its enactment. Similar moves have occurred across other performing arts, as new models for investigation of practice are pioneered. Born identifies three types of collaborations—integrative-synthesis, subordination-service, and agonistic-antagonistic—all of which are explored in this volume.⁴ These represent the bringing together of disciplines, joint work between practitioners who contribute their own specific areas of expertise to a composite creative activity, and work that crosses disciplines in order to make a critical comment in each of them. As documented in this collection, these three types of collaborative work describe an increasing amount of contemporary music practice. There has been a shift from the assumption of a sole-author model of contemporary music, in which the performer takes a subservient role to the wishes of the composer, to one in which active exchange is involved and documented as part of the creation of new work. These types of collaboration also represent a general shift in contemporary musical practice from the model of the composer-as-authority: today's collaborative practices deal with authorship, interpretation, and the figure of the composer, as much as with musical practices and approaches.

In addition to the increasing involvement of practice in research, the understanding and prevalence of practice methodologies in the form of practice research has also increased in musicology. Robin Nelson has argued that the exegesis of practice research must involve documentation, communication, and understanding of its processes as the site where the research occurs, describing the “clew” to such research projects as a thread that “weaves through the overall process”.⁵ It is therefore not surprising that practitioner-researchers in contemporary music-making often have a specific interest in musical processes. The link between practice and process is understood by Nelson as a specific dimension of the development of the research: he writes that “all forms of research and knowing involve a process” and that the processes of practice research are “multi-modal and dynamic”.⁶ Research knowledge of and through process, Nelson claims, is “consonant with more modern conceptions of scientific knowing (such as complexity and emergence)”.⁷ This book explores such knowledge as expressed as a part of the musical products that bear the

⁴ Born, p. 211.

⁵ Robin Nelson, *Practice as Research in the Arts: Principles, Protocols, Pedagogies, Resistances* (London: Palgrave Macmillan, 2013), pp. 8–10.

⁶ *Ibid.*, p. 46.

⁷ *Ibid.*, pp. 46–47.

traces of the research and collaborative processes that created them. Therefore, process is understood here not only as a part of the creation of musical works and performances but as part of their material.

As a result, this volume reflects these concerns through contributions from authors who are all active practitioners in their respective fields of music performance, composition, improvisation, and conducting. The diversity of these contributions shows the variety of processes and practices that are currently being undertaken by proponents of the field of contemporary music. They cover re-production of music in the contemporary orchestral setting, notated music, experimental music approaches, free improvisation, technologically mediated music, and multimedia performance practices. In each case, the potential for collaboration and/or distributed creativity can be identified on every level of the music-making, and aspects of practice from pre-compositional process, to rehearsal and development, to performance are all considered, giving the reader a clear idea of the multiple ways in which collaboration is undertaken in this music.

These essays provide a snapshot of the current collaborative and distributed processes that are employed by today's contemporary music practitioners. While some descriptions of Western Art Music present its creation and performance as a linear progression from a solitary act of composition to individual acts of interpretation in performance, mediated by the score, this is rarely the case in musical practice. The chapters contained in this volume reveal the varied nature of the approaches to creativity in music-making, and the ways that these are distributed across its practitioners during each stage of the development of musical works.

This book also contributes to the understanding of the type of musical processes categorized by Michael Nyman as "people processes".⁸ He defines these as "processes which allow the performers to move through given or suggested material, each at his own speed."⁹ While this definition is most readily applied to certain types of musical works, as Nyman does in his book, it could also be understood as a metaphor for collaborative processes. The different speeds of "working through" material, understood as overlapping approaches to the same work, can be identified in the different individuals as they collaborate and develop the music. Born recognizes this in her description of multiple and concurrent temporalities

⁸ Michael Nyman, *Experimental Music: Cage and Beyond*, 2nd edn (Cambridge: Cambridge University Press, 1999), p. 6.

⁹ *Ibid.*

within a musical work.¹⁰ Such “people processes”, then, describe not only the process of musical collaboration but the music’s temporal processes too.

A further topic explored in research into collaborative practice is that of ownership and authorship. Both the traditional presentation of Western Art Music, and the UK practice research context, favour work that has a recognizable sole author to whom the ownership of creative ideas and intellectual property can be ascribed. However, each of the authors who contribute to this collection demonstrate how such a model of authorship denies the reality of the work and practice of contemporary music. The “authorship” of musical performances, in terms of an expanded consideration of the role of the performer, has been of recent interest to musicology, in particular in the area of historical performance practice. For example, Daniel Leech-Wilkinson,¹¹ John Butt,¹² and Nicholas Cook,¹³ have outlined the creative contribution of performers in shaping the music of the past in the present. In contemporary music, the documentation of collaboration has also sought to open up its processes in the creation of music. For example, the work of Michael Hooper¹⁴ and Amanda Bayley¹⁵ has documented and reflected not only on collaborative processes between musicians, but the way that these relationships can be read in the musical works and performances that arise from them. This book furthers this area of enquiry by documenting the way that practitioners themselves conceive of their relationship of co-authorship in their musical works, performances, and approaches.

A third topic that links the contributions to this book is that of shared or distributed creativity. Distributed creativity has been specifically

¹⁰ Born, pp. 238–39.

¹¹ Daniel Leech-Wilkinson, *The Modern Invention of Medieval Music: Scholarship, Ideology, Performance* (Cambridge: Cambridge University Press, 2002).

¹² John Butt, *Playing with History: The Historical Approach to Musical Performance* (Cambridge: Cambridge University Press, 2002).

¹³ Nicholas Cook, *Beyond the Score: Music as Performance* (Oxford: Oxford University Press, 2013).

¹⁴ Michael Hooper, ‘The Start of Performance, or, Does Collaboration Matter?’, *Tempo*, 66.261 (2012), 26–36; and Michael Hooper, ‘Confusion in the Service of Discovery’, *Tempo*, 69.272 (2015), 12–23.

¹⁵ Amanda Bayley and Michael Clarke, *Evolution and Collaboration: The Composition, Rehearsal and Performance of Finnissey’s Second String Quartet* (Palatine, 2011) [on DVD].

investigated in music with respect to networked systems, and this area of enquiry is represented here through an investigation into networked scores for improvising performers. However, it is now recognized that technologically mediated environments are not the only ones in which distributed creativity is modelled. James Saunders's recent work series *group behaviours* (2009 –) and *things to do* (2012 –) demonstrate how such models are relevant to performers working on musical problems as a group.¹⁶ Here, the mediated environment of the contemporary orchestra is considered, as well as situations where mediation is present across time and geography, and where a model of distributed creativity represents the creation of music, knowledge, and an understanding of collaboration that does not require physical and temporary co-working to enable an equal exchange.

Research in this area has frequently sought to model creative processes in order to understand the expression and management of their distribution. Franziska Schroeder, as a part of the Sonic Art Research Centre at Queen's University, Belfast, has conceived of distributed creativity as networked listening within musical processes.¹⁷ Her understanding places listening at the heart of a multimodal musical discourse that is mediated by technology, social situations, and other musicians. Schroeder's conception of distributed creativity extends its role in music scholarship from a consideration of the role of technology in bringing musicians together in space and across geographical locations, to one that considers how their working together is different than their working apart. Such a conception speaks to many of the situations described in this book: particularly, but not exclusively, those which involve group music-making. The idea that working together creates a new situation rather than a meeting of individuals is at the heart of many of the collaborative situations described here.

A final strand involves the investigation of embodied knowledge through collaborative practice research processes. Musical research in practice as embodied knowledge has frequently been examined by research in music as performative. The theatre practitioner Ben Spatz has investigated the transmission of knowledge through the transmission of

¹⁶ James Saunders, 'compositions', *james-saunders.com*, (2017)

<<http://www.james-saunders.com/composing-2/>> [accessed 10 March 2017].

¹⁷ Franziska Schroeder, 'Network(ed) Listening — Towards a De-centering of Beings', *Contemporary Music Review*, 32.2–3 (2013), 215–29.

technique.¹⁸ This transference allows for the comprehension of practice research knowledge in such cases where the research output is ephemeral (for example, a performance) or only a transcription or representation that serves as a mnemonic (for example, a score). The work in this volume shows how transference of technique from composer to performer, performer to composer, performer to performer, composer to composer, or director/facilitator to participants also allows for the transmission of embodied knowledge. This makes a specific contribution to the documentation of the embodied knowledge of practice research in contemporary music and will serve as particular examples of its expression.

The study of musical collaboration has concerned the ways that musicians work together, the strategies that they employ to realize and co-create music, and the ways that their creative practices influence each other. Amanda Bayley and Michael Clarke's work on the collaboration between the Arditti String Quartet and the composer Michael Finnissy on his second and third string quartets represents an innovation in this area: this project documented every stage of the collaborative process, and the use of the non-textual presentation of the research to explore multiple threads across the work's processes and practices.¹⁹ This project revealed the multiple, layered, and differentiated ways of working within a single project. Bayley and Clarke's reflection on their methodology includes a representation of knowledge flows between composition, rehearsal, performance, and reflection: these are not linear but understood as multiple, interlocking stages.²⁰ They note that composition, performance, and analysis can be brought together to inform a single, rich, musicological investigation rather than be considered as separate modes of enquiry.²¹

Sam Hayden and Luke Windsor suggest three types of working relationships in their study of twentieth-century music: directive, interactive and collaborative.²² These three modes of working represent the

¹⁸ Ben Spatz, *What a Body Can Do: Technique as Knowledge, Practice as Research* (Abingdon: Routledge, 2015).

¹⁹ Amanda Bayley and Michael Clarke, *Evolution and Collaboration*.

²⁰ Amanda Bayley and Michael Clarke, 'Analytical Representations of Creative Processes in Michael Finnissy's Second String Quartet', *Journal of Interdisciplinary Music Studies*, 3.1–2 (2009), 139–57 (p. 140, fig. 1).

²¹ *Ibid.*, p. 142.

²² Sam Hayden and Luke Windsor, 'Collaboration and the Composer: Case Studies from the End of the 20th Century', *Tempo*, 61.240 (2007), 28–39 (p. 33).

modes of authorship in each scenario, moving from composer-led decision-making to shared decision-making. Alan Taylor has recently sought to extend this model, suggesting four modes of working: hierarchical, consultative, cooperative, and collaborative.²³ Taylor's categories are based on the degree to which decision-making *and* labour is shared in the production of a work.

What neither Hayden and Windsor, or Taylor, explore are the embodied experiences that are shared in collaborative processes. Recent performer-led investigations into these experiences, for example by Heather Roche²⁴ and Zubin Kanga,²⁵ have highlighted the subtle ways in which composer–performer interactions influence musical and performative outcomes beyond the score, to include the development of technique and technology. These studies demonstrate how collaboration might be understood beyond co-authorship as a unique and distributed approach to creative innovation. Such studies also allow for the consideration of the human in otherwise post-human environments. Rob Casey's recent consideration of John Cage and David Tudor as collaborators emphasizes how composer–performer interaction can shape not only musical outcomes, but aesthetics as well. He writes that, “[i]n contradistinction to the view propagated by critics of the Darmstadt school, that musical process is inherently inhuman, it is the very fact of Tudor's human-ness that permits Cage's music to fulfil the requirements of process”.²⁶ Casey's descriptions of Tudor's “methodical, focused and creative responses”²⁷ to Cage's musical challenges might well be recognized as an instance of collaborative practice research today, and this historical example highlights the way that the collaborative research presented in this volume contributes to a tradition of practitioner-led musical enquiry in this area.

Finally, existing research has considered interdisciplinarity as a collaborative approach within and between disciplines. The recent AHRC network led by Tom Armstrong describes such interdisciplinarity as “an

²³ Alan Taylor, “‘Collaboration’ in Contemporary Music: A Theoretical View”, *Contemporary Music Review*, 35.6 (2016), 562–78 (p. 570, table 1).

²⁴ Heather Roche, ‘Dialogue and Collaboration in the Creation of New Works for Clarinet’ (unpublished doctoral thesis, University of Huddersfield, 2011).

²⁵ Zubin Kanga, ‘Inside the Collaborative Process: Realising New Works for Solo Piano’ (unpublished doctoral thesis, Royal Academy of Music, 2014).

²⁶ Rob Casey, ‘Cage and Tudor as Process’, *Contemporary Music Review*, 35.6 (2016), 670–85 (p. 684).

²⁷ *Ibid.*, p. 679.

approach to creative practice and inquiry in which disciplinary boundaries become permeable and associated working habits, training, individual knowledge, skills and assumptions are challenged".²⁸ This description also fits many of the collaborative circumstances presented in this book: in each case the practitioners involved do not simply bring their existing knowledge into creative situations or impart their existing expertise, but they develop new techniques and approaches within their existing range of skills as a result of their creative enquiries with others.

Three broad themes can be identified in this work, all of which involve a degree of personal reflection, auto-ethnography, or action research. These themes can broadly be seen to represent areas of collaboration in contemporary music practice as a whole, and can also be understood as examples of Born's three categories of collaboration.

The first is represented by composers addressing aspects of collaboration in different areas of musical projects. Louis d'Heudieres, Richard Glover, and Lauren Redhead all address the field of experimental music, broadly defined. These contributions show how composers may have the ideas and music-making of others at the forefront of their minds when composing: the collaborative aspects of their work are an essential part of music that is never realized before performance, but that also invites the perspectives and approaches of other artists and art forms. In these chapters, the composer as the facilitator of a musical experience, as opposed to the author of a concept or musical text, is foregrounded, and so the collaborative experience of the composer is that of working with the performer to shape and realize the music. In the cases of Richard Glover and Louis d'Heudieres, the notation itself is conceived as an active collaborator in the musical process: this is similar to the way that a technological node can be considered as an actor in Bruno Latour's Actor Network Theory.²⁹ Lauren Redhead's chapter further considers how different stages of a project might involve different collaborative relationships that nevertheless contribute to shared aesthetics that emerge from the project.

The second topic of the book features collective and distributed music-making in groups. Cayenna Ponchione-Bailey's contribution focuses on

²⁸ Department of Music and Media, University of Surrey, *Music Composition as Interdisciplinary Practice* (Surrey, 2017) <<http://www.surrey.ac.uk/departments-music-media/research-department/music-composition-interdisciplinary-practice>> [accessed 30 March 2017].

²⁹ Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* (Oxford: Oxford University Press, 2005).

the orchestra: perhaps the largest music-making context within Western Art Music. Stefano Kalonaris and Rogério Costa, et al, take in improvisatory practices in medium to large groups, and the range of possible strategies to manage these in the short and long term. This section covers the range of practices from performance of fully notated music, to working with notational performance stimuli, to fully devised performances that serve as examples of group authorship that is archived in the bodies of the performers. It deals with the issues of the negotiation, management, and sharing of information in groups, and the ways that collaborative creativity is employed towards the realization of specific shared goals.

In the penultimate section of the book, composers and performers reflect on their own collaborations and the various ways that they have worked together to develop and realize music. In each case, the performer is seen not only as a source of expertise about their instrument but as an individual whose performance practices might directly influence the musical outcome of the collaboration. In the cases of Panos Ghikas, and Adam de la Cour and Zubin Kanga, technological issues also mediate the collaborative process, requiring specific technological knowledge beyond the compositional and instrumental that are worked through by both parties in the creative process. In the case of Catherine Laws, the performer contributes more than her expertise, developing and creating a part of the work itself. Thus, in each case, composite collaborative situations are conceived as unique performance situations.

The final chapter of the book contains a score for musical performance. Maya Verlaak's work invites the reader to become a collaborator in the realization of the piece, thus inviting them into the direct experience of the collaboration beyond its description. This further demonstrates how a practice research methodology might incorporate reflection on an artist's process as another performative element of the work. Each of these authors presents a unique perspective, and privileges the opinions and experiences of the artists who create and realize music in the present day. Thus, while many theorizations of collaboration might already be found, this volume aims to present it as a contemporary reality in music-making today.

I

PERSPECTIVES ON COLLABORATION IN ASPECTS OF CONTEMPORARY COMPOSITION

COLOURFUL INTERACTIONS: COMPOSERS, THEATRICAL SCORES, AND MUSIC AS PERFORMANCE

LOUIS D'HEUDIÈRES

In *Beyond the Score: Music as Performance* (2013), Nicholas Cook presents a compelling case for understanding Western Art Music as being primarily performative in nature, but nevertheless comprising an inalienable element of literature (the score).¹ While many of the musicological discussions cited by Cook turn to Historically Informed Performance as a way of illustrating the importance of performance in an understanding of music,² in this chapter I seek to add another perspective by discussing recent works whose compositional concerns have involved radically reimagining the role of scores, namely by making the performers' interaction with the score a theatrical consideration. The three case studies with which I will illustrate my argument are Peter Ablinger's *Wachstum und Massenmord* (2010), Celeste Oram's *mirror #1* (2013), and Gavin Bryars's *1, 2, 1-2-3-4* (1970), although I will also discuss other related works. Central to my argument is the idea of manipulating time as an essential feature of score interaction. The scores I discuss are time-based either inherently, by virtue of their medium—this is the case with video and audio scores—or through an artificially imposed process—paper scores given a limited amount of time to be learned, for example. Such scores are reconstrued as theatrical agents, indicating that their composers

¹ Nicholas Cook, *Beyond the Score: Music as Performance* (Oxford: Oxford University Press, 2013). Cook lays the foundations for this line of thinking in his earlier article, 'Between Process and Product: Music and/as Performance', *Music Theory Online*, 7.2 (2001)

<<http://www.mtosmt.org/issues/mto.01.7.2/mto.01.7.2.cook.html#FN29REF>>
[accessed 28 March 2017].

² Cf. Peter Kivy, *Authenticities: Philosophical Reflections on Musical Performance* (Ithaca: Cornell University Press, 1995); and Richard Taruskin, *Text and Act: Essays on Music and Performance* (New York: Oxford University Press, 1995).

are primarily interested in their contribution to meaning that arises through performance. This must be reconciled with the context composers inherit—namely, non-dramatic, concert hall musical performance, which has historically linked the perception of sound with the idea of abstract musical works. Bringing to bear the theatrical ramifications of “temporalized” scores on performers’ sounds and gestures, I conclude by critically reflecting upon my examples, and showing how they provide insights in addition to Cook’s discussion of the kind of meaning that arises in musical performance.

Temporalized scores exist in a variety of forms and are not limited to a single medium. Mauricio Kagel’s *Diaphonie I* (1964) involves a graphic score projected on slides, which the performers must react to spontaneously.³ Ryan Ross Smith’s projected animated scores similarly involve the audience as witnesses to the process of stimulus and action, but go beyond a static progression of slides to instead present notation that is moving continuously.⁴ Michael Baldwin’s *Ephemera #8* (2013) is inscribed in ink on a piece of balsam wood that is burned during performance, “making both the score and the performance intertwined with ephemerality”, an acute form of temporality.⁵ Andy Ingamells’s *Waschen* is similarly ephemeral, but uses the composer–performer’s body as the site on which the score is inscribed and subsequently washed off in performance.⁶ Claudia Molitor’s *Touch — A Collection of Works* does away with seeing altogether and presents a series of scores as tactile objects.⁷ Luke Nickel’s *[factory]* (2014) exists purely in the minds of the musicians to whom it is communicated, using them as living archives for the score, which evolves along with their memory of it.⁸ In G. Douglas Barrett’s *A Few Silence (Location, Date, Time of Performance)* (2007),

³ Björn Heile, *The Music of Mauricio Kagel* (Aldershot: Ashgate, 2006), pp. 71–73.

⁴ Ryan Ross Smith, *ryan ross smith – scores*, (n.d.)
<<http://ryanrosssmith.com/scores.html>> [accessed 21 June 2016].

⁵ Michael Baldwin, ‘Reflections on Ephemerality and Notation in my Recent Work’ (unpublished master’s thesis, University of Huddersfield, 2012)
<https://michaelbaldwincomposer.files.wordpress.com/2013/01/repository_thesis_baldwin.pdf> [accessed 26 October 2016], p. 13.

⁶ Andy Ingamells, *Presentation about George Brecht and ‘Waschen’*, 2017, online video recording, Vimeo, <<https://vimeo.com/153783435>> [accessed 16 July 2017].

⁷ Claudia Molitor, *Touch — A Collection of Works*, (n.d.)
<<http://www.claudiamolitor.org/#/touch/>> [accessed 28 April 2018].

⁸ Luke Nickel, *[factory]*, (2014)
<<http://lukenickel.com/works-portfolio-2/factory/>> [accessed 5 July 2017].

performers write scores during the performance itself by listening for sounds in their environment and writing down what occurred when for later reproduction.⁹ In Tim Parkinson's *Time with People*, performers hear sounds over headphones and must describe what they are before the next sound unpredictably appears.¹⁰

As well as all of the above, the three pieces I will discuss make time a defining factor in the way that performers interact with scores in performance. Each individual score medium restricts, dictates, or colours this interaction in different ways, and two media I will look at closely are video and audio, as well as traditional paper-based scores. However, before exploring the properties of these different media, it should be said that I do not wish to essentialize a score's medium to the point of completely denigrating its content. I hope to show, rather, that each medium enables different kinds of musical content to be prioritized, while still allowing for a vast array of possibilities, many of which overlap with those enabled by different media. On one level, different media enable different kinds of performer–score interaction, and different kinds of theatrical possibilities on stage; on another, a score always has the potential to communicate ideas that transcend the medium it uses to express them. As an example, increasingly in concerts, visually notated scores are read as PDF files on electronic tablets rather than on sheets of paper. For many pieces of music this effects a negligible aesthetic change. If conveying a pitch sequence is the intention of the piece, for instance, that intention will be communicated no matter which medium is chosen, so long as the notation is visible to the performers. The change a medium makes to a work's meaning is only significant if the medium has somehow informed the notational system used to communicate from composer to performer, or if a decision has been made to acknowledge the theatricality of the medium in performance (for instance, a performer may deliberately choose to read a score on electronic tablets to give the work an air of technological sophistication). To summarize, and invoke Marshall McLuhan's famous phrase on the subject,¹¹ the medium is an integral, but

⁹ G. Douglas Barrett, *A Few Silence (Location, Date, Time of Performance)*, (2007) <http://gdouglasbarrett.com/music/A_Few_Silence_score/> [accessed 11 July 2017].

¹⁰ Tim Parkinson, *Time with People @ HCMF 2014*, online video recording, Vimeo, 11 December 2014, <<https://vimeo.com/114220946>> [accessed 29 June 2016].

¹¹ Cf. 'The medium is the message': Marshall McLuhan, *Understanding Media: The Extensions of Man* (New York: Gingko Press, 2003), pp. 17–36.

not wholly determinant, part of the message.

For McLuhan, Western culture has historically defined itself through the prioritization of the visual sense. This visual understanding of, and engagement with, the world paved the way for literacy, “a uniform processing of a culture by a visual sense extended in space and time”.¹² A particularly Western development entwined with visual media is the phonetic alphabet, which allows for “the breaking up of every kind of experience into uniform units”, with the corollary of enabling “faster action and change of form (applied knowledge)”.¹³ It is perhaps evidence for McLuhan’s theory that musical notation in Western culture evolved to be somewhat alphabetic, at least in terms of the uniformity of its components—the staff, the clef, the breve, semibreve, minim, crotchet, quaver, the barline, etc.—which can be used in combination with each other as such. Like the written word, musical notation breaks up and codifies experience into “connected lineal sequences” of “uniform units”, allowing the mechanisms of literate learning and remembering to be played out. Inherent in the visibility of symbols is their existence as static objects that are fixed in time.¹⁴ Literate learning has been dependent upon media which preserve this visual atemporality. Accordingly, fixed as a set of static visual symbols, a score written on the page lets the reader navigate it according to her or his own time constraints (or lack thereof). It lays out a potential experience sequentially, allowing readers to scrutinize it and mentally anticipate its unfolding. Cook writes that, “[s]cores represent pieces of music as spatial configurations”,¹⁵ to the extent that musicologists have tended to think of the whole practice of Western Art Music in terms of “non-temporal models”, employing a discourse which “construes the object as something that endures, and as such exists on a different plane from ongoing, experienced time”.¹⁶

As a literate language, musical notation has the potential to be learned. In Western Art Music, as in much theatre, learning the score or script is a prerequisite for performance. This link between knowledge of the text and performance is one of the themes of Peter Ablinger’s *Wachstum und Massenmord*. In this piece, the stage is set for a traditional performance of

¹² Ibid., p. 122.

¹³ Ibid., p. 121.

¹⁴ Although, of course, some visual entities are able to change over time.

¹⁵ Cook, *Beyond the Score*, p. 23. It is notable, if only to show the dominance of visual scores in Western Art Music, that Cook does not distinguish between “score” and “visual score written on paper”.

¹⁶ Ibid., p. 23.

Western Art Music, the only odd difference perhaps being the configuration of seats for the string quartet, which face in on each other, rather than out to the audience.¹⁷ However, once the musicians sit down and “fold their scores back to break bindings that had obviously still been intact a moment before”,¹⁸ it becomes clear that the usual preparatory act of literate learning has not taken place. They start by “discussing rehearsal techniques for the piece”,¹⁹ signalling the fact that the amount of time spent learning the score has been reduced to zero, and that the performance is an act of learning itself. The performers’ relationship to the score is presented as being in constant (re)negotiation. This contrasts with the performer–score relationship in the conventional situation, which, emboldened by notation’s propensity for being learned, is significantly more fixed and stable. In his discussion of performance in the theatre and beyond, Richard Schechner identifies the different stages of “rehearsal” and “preparation” that occur prior to a performance.²⁰ Together, these stages bring about “the transformation of ‘natural sequences’ of behaviour into ‘composed sequences’ [through the processes of] repetition, simplification, exaggeration, [and] rhythmic action”. Denying these stages prior to performance, *Wachstum und Massenmord* denies the performers and the audience the “ritual frame surrounding, setting off, and protecting the time/space of the theater”.²¹ All the audience sees are “natural sequences” of behaviour, in a space where they were expecting “composed sequences”. Without the required ritual frame, the audience at the piece’s premiere in Donaueschingen in 2010 read the performers’ alienation on stage as an alienating gesture towards themselves. The piece was forcibly stopped from continuing by the audience in an act of social

¹⁷ Peter Ablinger, *Wachstum und Massenmord*, (2010)

<http://ablinger.mur.at/scores/i&_title_4word_programnote.pdf>

[accessed 30 June 2016].

¹⁸ Jennie Gottschalk, ‘Donaueschinger Musiktage 2010 (3/3) — Peter Ablinger: Wachstum und Massenmord’, *Sound Expanse*, (2010)

<[http://www.soundexpanse.com/donaueschinger-musiktage-2010-33%E2%80%](http://www.soundexpanse.com/donaueschinger-musiktage-2010-33%E2%80%9494peter-ablinger-wachstum-und-massenmord/)

94peter-ablinger-wachstum-und-massenmord/> [accessed 12 July 2017].

¹⁹ Gottschalk, ‘Donaueschinger Musiktage 2010 (3/3)’.

²⁰ Richard Schechner, *Performance Theory* (London: Routledge Classics, 2003), pp. 207–08. Schechner’s theory is wide-ranging enough for him to include civic ceremonies, avant-garde theatre productions, and rituals of Aboriginal cultures in his examples.

²¹ *Ibid.*, p. 207.

confrontation.²²

In Celeste Oram's *mirror #1*, filmed physical gestures are used as instructions to be imitated by performers on stage. Watching the video score, the performers "should endeavour to closely follow the timing of the on-screen figure's movement so that their movement 'syncs' with the movement of the film".²³ It is important to take full account of the word "syncs" in this instruction. Through the medium of video, actions such as those of a man shaving his face and neck are able to be perceived as an observer would perceive them in real time, and therefore to be reproduced simultaneously as an action in real time. Such real or lived time appears to the observer as smooth and continuous in the score itself, in opposition to time as it is presented through static, separate visual symbols. The medium of video opens up the possibility for stimulus and reaction to both of these options on the same temporal plane, in a way that paper scores, restricted as they are to representing temporal actions in discrete steps, simply cannot. (Although of course video is not limited to presenting time in this way: as shown by such works as Michael Baldwin's *JHoldingOn* (2016), video scores can and do make use of time in a malleable way, using smooth, "natural" motion, as well as slow motion, jump cuts, and freeze frames, all of which allow for different ways of communicating to performers, as well as for different performative consequences.²⁴) Through video, Oram is able to bypass knowledge of musical notation. The score is known to the performers and audience both circumstantially *and* semantically; they understand the language of the score, in the sense that they can relate to the meaning of the actions performed in the video. The sounds that result can then be seen as merely reproducing the physical properties of the actions—the chopping of an onion produces a fast, sudden jump as the knife makes contact with the chopping board, for example—or as accompanying the actions narratively—the string quartet's

²² The LP *Fluxus +/-* by Peter Ablinger, Bill Dietz, Kommissar Hjuler, and Sven-Ake Johansson (Psych.KG 373, 2017), features the Diotima Quartet's performance. See also Gottschalk, 'Donaueschinger Musiktage 2010 (3/3)'.

²³ Celeste Oram, *mirror #1 – performance notes*, (2013)
<<https://dl.dropboxusercontent.com/u/73434485/mirror%20%231%20-%20performance%20notes.pdf>> [accessed 11 July 2017].

²⁴ Michael Baldwin, *Limbs Have Hearts and Eyes Hear – on 'JHoldingOn*, (2016)
<<https://michaelbaldwincomposer.wordpress.com/tag/holding-on/>> [accessed 26 October 2016].

rough, atonal scrapes bring out the inherent precariousness in each swipe of the razor against the man's skin.²⁵

An audio score is one in which the instructions from composer to performer are communicated in performance through sound.²⁶ Practically speaking, this usually takes place through headphones (as it does in Gavin Bryars's *1, 2, 1-2-3-4*), but it can take the form of any medium capable of transmitting sound. Carolyn Chen's *Adagio* (2009) appropriates Bruckner to make a facial choreography of performers listening on headphones,²⁷ whereas my piece *for _____ on _____* (2015) communicates the score to both performers and audience "openly" through speakers.²⁸ As with video scores, audio scores exist *through* time, while static visual scores could be said to exist *in* time. More particularly, audio scores take the same form as the sonic result they seek to provoke. It is striking that, in his instructions for *1, 2, 1-2-3-4*, Gavin Bryars uses very similar vocabulary to Oram in describing the interaction between the performers and the score. In this case, it involves imitating what their instrument plays in a mix of audio recordings heard via headphones. Bryars describes the "intended 1-to-1 relationship between what [the performer] hears himself play and what he hears pre-recorded",²⁹ echoing Oram's "syncing" of the performative action and the score.

This vocabulary is indicative of the fact that, when composing with audio and video scores, the opportunity arises to place the performers in a continuous present, to lock them into the moment-to-moment unfolding of the score where anticipating future events is almost always a practical impossibility. I do not claim that these media *necessarily* preclude the performers from taking their mental attention away from the present moment (indeed, who is to tell whether a particularly mentally agile

²⁵ Oram, *mirror #1*.

²⁶ What distinguishes an audio score from samples of sound which are used to supplement primarily visual scores, as have been employed recently by Lachenmann, among others, is that the latter are not used in performance, and are never used as the primary — i.e. most consistent — source of communication between composer and performer.

²⁷ Carolyn Chen, *Adagio – the wulf*, online video recording, YouTube, 2 August 2009, <<https://www.youtube.com/watch?v=G54g-W8QFCc&feature=BFa&list=ULrA7LXAXBeIU&index=9>> [accessed 11 July 2017].

²⁸ Louis d'Heudieres, *for _____ on _____*, (n.d.)

<http://louisdheudieres.com/for_____on_____.html> [accessed 11 July 2017].

²⁹ Gavin Bryars, '1, 2, 1-2-3-4', in *Verbal Anthology*, ed. by Robert Ashley and others (London: Experimental Music Catalogue, 1970), pp. 20–21 (p. 20).

performer is actually thinking about something else while keeping perfect time with the score?). Rather, I merely claim that time-based media enable the collective temporal progression of performers and scores to take place in a theatrically compelling way. The audience sees the performers wearing headphones, or sees the video score projected onto a wall, and follows the action with both of them. As Björn Heile says of Kagel's use of a projected score in *Diaphonie I*, making the interaction between performers and scores a theatrical concern brings the audience into the "social drama" that underpins every performance of notated music.³⁰ Although it is unclear whether he was thinking along similar lines, it is significant that Heile's phrase resonates with Cook's (and many other's) in the foregrounding of music's sociality.

The importance of temporality in media has been noted by Philip Auslander in his discussion of contemporary media (such as television, CDs, and the internet) and their cultural, economic, and political effects on live performance.³¹ Arguing for the ontological entanglement of "live" and mediatized forms of performance, Auslander makes a distinction between media that are time-based and media that are not. When considering whether writing can sufficiently reproduce a live performance to entail a mediatization of that performance, for instance, Auslander concludes in the negative. Since it does not offer the viewer or listener an experience that resembles the live event sufficiently, writing cannot be a mediatization of that event. On the other hand, in providing "direct transcriptions through which we can access the performance itself [...] aural and visual recording media" can and do provide mediatized versions of the live.³² The key difference for Auslander is that audio and video recordings offer an experience which is similar *temporally* to live performance: "recording media may be used to capture performance in *real time*: the *duration* of the recording can be identical with that of the performance itself".³³ Just as mediatized forms such as television broadcasts entail technical reproductions of the live, audio and video scores' existence through time is an indicator of the fact that they are mediatized forms of sonic or visual action themselves. As opposed to paper scores, whose perceptual

³⁰ Heile, p. 72. Taking this 'social drama' further, some works, such as Aviva Endean's *A Face Like Yours*, communicate directly with the audience through the score.

³¹ Philip Auslander, *Liveness: Performance in A Mediatized Culture* (London: Routledge, 1999).

³² *Ibid.*, p. 52.

³³ *Ibid.*, p. 52n, emphasis added.

dissimilarity to live performance precludes them from being mediatizations of it, audio and video scores are so akin to the live that they require artificial contextualization for them to indeed be interpreted as scores rather than mediatizations;³⁴ Oram says of *mirror #1* that “you could even say the score itself is a performance”.³⁵ Since they inherently behave performatively, videos and sounds have naturally found themselves playing prime theatrical roles when used as score media. The fidelity with which real-time action is reproduced by them is appropriated as a form of communication from composer to performer, resulting in performances that reflect their awareness of the mediatized nature of Western Art Music.

The question of how performers interact with theatricalized scores follows from their creation. It is striking that many composers’ answer has been to involve a crucial element of imitation—in most cases, either of performative gestures seen, or sounds heard. Michael Kirby theorizes the act of imitation when trying to find where the line exists between “acting” and “not-acting”. Considering a game of mirror, in which two actors face each other, one copying the other’s movements, he notes that,

we do not accept the ‘mirror’ as acting, even though that character is a ‘representation’ of the first person. He lacks the psychic energy that turns the abstraction into a personification. If an attitude of ‘I’m imitating you’ is projected, however—if purposeful distortion or ‘editorialising’ appears rather than the neutral attitude of exact copying—the mirror becomes an actor even though the original movements were abstract.³⁶

Oram’s performance notes directly mention the act of mirroring, noting that any such act “will involve some artistic licence and negotiation”. Keen to make the mimicry not too “literal”, she suggests the performers play their instruments “unconventionally and flamboyantly”, potentially to the extent that they end up “producing sounds which are unexpected and

³⁴ This usually takes the form of an explanatory note, as with *mirror #1* and *I, 2, 1-2-3-4*.

³⁵ Celeste Oram, *mirror #1*, (2013) <<http://celesteoram.com/mirror-1-2013-a-video-score>> [accessed 11 July 2017]. This situation can still happen with fixed media, for example in Baldwin’s *ephemera #8*, where the static score is put through a process (burning) which makes it exist co-temporally with the performance; the crucial element is this (artificially imposed) process, which takes the score out of its usual atemporal state.

³⁶ Michael Kirby, ‘On Acting and Not-Acting’, in *Acting (Re)considered: A Theoretical and Practical Guide*, ed. by Phillip B. Zarrilli, 2nd edn (London: Routledge, 2002), pp. 40–52 (p. 44).

seemingly at odds with the visual image".³⁷ Although they involve a greater element of translation than the gestures Kirby addresses (from everyday actions to instrumental playing), Oram's instructions in essence support Kirby's point: entangled in her or his own game of mirror, the performer can potentially act or represent beyond imitating the score, but only if she or he self-consciously "distorts" or "editorializes" the material.

This might at first seem like a disappointing conclusion. In becoming theatrical, does the role of the score need external clarification to stop it from dominating that of the performers? Has mere interaction between scores and performers taken the place of musical meaning? For this to be the case, the actions carried out by the performers would have to acquire meaning *solely* through their being mediated by the score, in the same manner that, as shown by Auslander, "Clint Eastwood's squint, [...] becomes meaningful [characterologically] only through the mediation of the camera in close-up and editing".³⁸ This would be a direct contradiction of the traditional mode of score-based performance, in which a musical phrase, passage, or idea is thought to have expressive and characterful meaning *in spite* of its being mediated by the score. It would also be a conclusion too technologically deterministic in its analysis. Some ground must be ceded to the possibility that, even in hyper-mediatized performance situations where the score is a primary theatrical agent, musical content such as notes, rhythms, and sounds, which is to say nothing of character or expression, can in fact transcend the medium in which they are communicated (that composers can also want this to be so is made clear by Oram's performance notes). One can still listen to *mirror #1* for the glissandos it produces; one can still hear *Wachstum und Massenmord* as a sequence of fluffed arpeggios, behind a din of noise or not; one can still ascribe meaning to the performers through the sounds they produce.

This is supported by the fact that, while not all meaningful representation depends on the performer's actions—costume, lighting, set design, and venue all play a part, to name only the most obvious features—outside of opera, musical performances often happen in situations with little or no contextualizing factors common to theatre. What many musical performances do have are music stands, which nearly always signify that the focus of the work will be (at least in part) the sounds produced by the players. Performance in the institutional context

³⁷ Oram, *mirror #1 – performance notes*.

³⁸ Auslander, *Liveness*, pp. 32–33.

which inherited this legacy feeds into how composers write and allows such pieces as *mirror #1* to be heard as sound. This factor of context is important: discussing the use of theatrical elements in current strands of musical composition, Matthew Shlomowitz rightly emphasizes the fact that composers make work for “a setting in which audiences debate whether it is better to listen with eyes opened or closed”.³⁹ At the extreme, it is a context for which John Cage and others conceived the notion of “sound-in-itself”, where sound exists “free of the defiling influence of language and signification”.⁴⁰ Although I would agree that this is a utopian dream of an idea rightly dismissed by Seth Kim-Cohen as conceptually problematic, the point stands that the institution of Western Art Music thinks itself to be based on perception of sound—in the basic sense that it sees as important the reception of sensory impressions upon the ear—from which it derives the concepts of pitch, rhythm, harmony, and timbre. Accordingly, although I have argued that with video and audio scores a sense of (visual) theatre is almost invariably invoked, the setting equally invariably prescribes a sonic attitude for appreciating these works. What emerges from *Wachstum und Massenmord*, *mirror #1*, and *1, 2, 1-2-3-4*, are indeed theatricalized performances that, in focusing acutely on the mechanisms of producing a sound, action, or musical performance, become self-reflexive of the performative act: they resonate with what Elinor Fuchs, when talking about avant-garde theatre practices in the 1980s, described as “a performance art ‘about’ performance itself”.⁴¹ But I would not argue that they focus so acutely on the theatre of sound-producing or sound-enabling mechanisms that nothing else remains. Arguably, notated music’s usual expressive power, which depends on mastery, even internalization, of the (literary) score, is denied. But rather than erasing all musical meaning, I will argue in conclusion that these pieces simply create a more multilayered meaning.

To exemplify my point, I return to *1, 2, 1-2-3-4*, and first, to the performance of that piece that I witnessed at the London Contemporary Music Festival in 2014. Taking place in a vast former carpet factory, the festival featured a diverse range of artistic disciplines, from a “Noh play

³⁹ Matthew Shlomowitz, ‘The Automaton Approach’, *MusikTexte*, 149 (2016) <<http://musiktexte.de/WebRoot/Store22/Shops/dc91cfee-4fdc-41fe-82da-0c2b88528c1e/MediaGallery/Shlomowitz.pdf>> [accessed 27 June 2016].

⁴⁰ Seth Kim-Cohen, *In the Blink of an Ear: Toward a Non-Cochlear Sonic Art* (New York: Continuum, 2009), p. 125.

⁴¹ Elinor Fuchs, *The Death of Character: Perspectives on Theater after Modernism* (Bloomington: Indiana University Press, 1996), p. 170.