PERFORMING COMPLEXITY:
THEORIZING PERFORMER AGENCY IN COMPLEXIST MUSIC

by

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Abstract

This thesis explores performer agency in complexist music (often called “new complexity”). Rather than dwelling on compositional aspects, it examines the multivalent network of relationships between the score, the performer, and their performance. This focus situates the thesis at the confluence of multiple intersecting lines of inquiry into complexism as a musical phenomenon and also positions it within the broader field of performance studies.

Chapter 1 surveys and contrasts definitions of complexism offered by Claus-Steffen Mahnkopf and Richard Toop. Both engage with the underlying conceptual elements of complexism rather than surface-level concerns and provide a framework and terminology for discussing aspects of complexist performance.

Chapter 2 examines approaches to instrumental writing (“radically idiomatic instrumentalism”) and notational practices that emphasize the means of sonic production (“prescriptive notation”) common in complexist music. Taken together, these qualitatively change the nature of performance in contrast to common practice era music and other contemporary aesthetics. Some aspects of complexist performance practice and ethics are also considered.

Chapter 3 develops the core ideas of the thesis. It draws on complexity researcher Paul Cilliers and literary theorist Umberto Eco to formulate a nested paradigm—the “complexist performance system” and its “performance nexus”—through which the web of agencies and inter-agent relationships can be examined. The defining aspect of this system is the observation that the performer is multivalently situated in relation to and actively embodies aspects of the composer and work agencies during performance (“multiple agency”).
Chapter 4 uses this framework to examine pieces for solo clarinet by Joan Arnau Pàmies, Aaron Cassidy, Richard Barrett, and Timothy McCormack. Special attention is paid to the ways in which conceptual and material structures shape performer agency.

Chapter 5 focuses on a performer’s evolving familiarity with a complexist work as a contextualizing pressure during performance. This topic is explored through reflections on the author’s performance history and interpretational practice with Ray Evanoff’s Narratives for solo E-flat clarinet.

Chapter 6 concludes the thesis by reflecting on possible future work in the field, and an appendix provides a repertoire list of complexist pieces for solo clarinet and for mixed ensemble including clarinet.
Lay Summary

Complexism is a recent development in contemporary art music (since approximately 1970) that is often characterized by an abundance and specificity of notated information compared to music of previous eras. Some critics suggest that complexism does not afford the performer any room for interpretation or expression, and leaves the performer little agency over their performance.

This thesis argues that this stance reflects an erroneous application of older conceptions of agency and interpretation to this contemporary aesthetic, and proposes an alternative perspective that reflects the underlying values of complexist music. This framework (the “complexist performance system”) draws on Paul Cilliers’ theory of complex systems and on Umberto Eco’s theories of agency and interpretation to identify and explore the distinctive forms of performer agency engaged by complexism.

Representative musical works are analyzed using the new framework, and the author reflects on his own musical practice in relation to complexist performance.
Preface

This dissertation is an original, unpublished, independent work by the author, Liam James Hockley. An early version of some ideas discussed in Chapter 3 was published as “Conflicting Messages: Performer Agency in Contemporary Aesthetics” in the online journal FOCI Arts/Words on 25 March 2016.

A lecture presentation of the central material from Chapter 3 was given at the Northwestern University New Music Conference (NUNC!3) on 22 April 2018. Additionally, a lecture-recital closely related to this thesis was presented on 18 September 2018 at the University of British Columbia. The lecture portion provided an introduction to central ideas in the thesis, and the recital portion presented performances of Ray Evanoff’s Narratives for solo E-flat clarinet (2014) and Timothy McCormack’s RAW MATTER for solo bass clarinet (2015-17).
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For Earl Thomas, with gratitude.
Introduction

The world is bound with secret knots.¹
—Athanasius Kircher

The idea of “complexity” in music, either as a pursued compositional value or post hoc descriptive term, is not unique to the late twentieth and early twenty-first centuries. As musicologist Richard Toop points out, the label “complex” has been applied to many different types of Western art music over the course of its history: he offers as examples the “extravagant alleluias of plainchant and thirteenth-century Parisian organum”; the ars subilitor of the fourteenth century (a favourite reference point for many contemporary complexists); the rhythmical and mechanical experiments of Ives, Stravinsky, and Nancarrow; the pitch organization of the Second Viennese School composers; and Alois Hába’s microtonal experiments (Toop 2010a, 89).

The practice that has typically been called “new complexity” is a relatively recent aesthetic in Western art music. Although its origins are typically traced to the early 1970s in the music of Brian Ferneyhough, some confusion nonetheless exists as to the origins of the term “new complexity” as well as the specific musical phenomena to which it refers.² Richard Toop’s seminal 1988 article “Four Facets of ‘The New Complexity’” is among the first major academic sources to use the term and, to a large extent, is responsible for consolidating the usage of “new complexity”

¹ “Arcanis nodis liguntur mundus,” from the frontispiece to Magneticum Naturae Regnum (1667) (Godwin 2009, 34).

² Michael Finnissy (2002) points out that “historically, the tag ‘new complexity’ was coined long after ‘the aesthetic’ had reached fruition” (73), an argument echoed by Ian Pace (2015, 32). For a very thorough history of the term “new complexity”, see Hawkins 2010 and Pace 2015 at 32-38. By way of a brief summary, however, early usages of the term are credited to: Belgian musicologist Harry Halbreich in 1978 (Finnissy 2002, 75); composer Nigel Osboure around 1980 in reference to the work of James Dillon and Chris Dench (Toop 2010a, 89); and British musicologist Keith Potter in reference to Oliver Knussen in 1982 (Hawkins 2010, 8-9).
in reference to a specific group of composers.\textsuperscript{3} Toop examines musical and philosophical connections between the work of British composers Michael Finnissy, James Dillon, Chris Dench, and Richard Barrett who are all now popularly associated to a greater or lesser degree with new complexity. Ian Pace, however, suggests that Toop’s article presents a rather narrow slice of the field by focusing mainly on British composers who “relate more to a tradition coming from Finnissy (and Xenakis, and some others)” (Pace 2015, 32). Pace suggests that this had the effect—at least initially—of marginalizing composers whose music could also be justifiably defined through the term “new complexity” but was more closely related to a ‘tradition’ emerging from the work of Brian Ferneyhough (33).\textsuperscript{4}

More recently, the similar-sounding term “complexism” has entered into the discourse to describe the music that this thesis considers. In that I do not view “new complexity” and “complexism” as interchangeable terms, some basic lexical clarification is required at this point.

“New complexity” is probably the more well-known term, appearing frequently in criticism, academic books and articles, as well as major reference sources such as The New Grove Dictionary of Music and Musicians. It is typically defined in a rather reductive way with undue attention placed on the abundance of superficial detail over deeper musical issues. For example,

\begin{quote}
\textsuperscript{3} Pace points out that a French-language article “Éloge de la complexité” (Nicolas 1987) was published a year before Toop’s “Four Facets,” but does not make specific reference to new complexity (or “nouvelle complexité”) and goes so far as to suggest that Ferneyhough alone falls under the purview of the term (Pace 2015, 32 note 187).

\textsuperscript{4} It is important to note that Brian Ferneyhough is typically considered to be the seminal figure in terms of the early development of “new complexity,” and that the breadth and importance of his music from the 1970s to the present day cannot be overstated. His extensive teaching record as both coordinator of the composition programme at the Darmstadt Summer Courses between 1982 and 1996 (and continued participation to the present day) as well as lengthy tenures as professor of composition at the Staatliche Hochschule für Musik im Freiburg, the University of California San Diego, and Stanford University mean that many composers now popularly associated with complexism such as such as Claus-Steffen Mahnkopf, James Erber, Klaus K. Hübler, and Roger Redgate were directly influenced by his work, ideas, and teaching. For these reasons, many—including Toop, who has written extensively on Ferneyhough—afford him “the same sort of key position that Stockhausen held in terms of late fifties serialism” (Toop 1993, 53).
\end{quote}
the entry for “new complexity” in *The New Grove Dictionary of Music and Musicians* focuses on the notational aspects of representative works, describing them as:

push[ing] the prescriptive capacity of traditional staff notation to its limits, with a hitherto unprecedented detailing of articulation. Microtonal pitch differentiations, ametric rhythmic divisions and the minutiae of timbral and dynamic inflection [are] all painstakingly notated; the technical and intellectual difficulties which such notations present for performers were regarded as a significant aesthetic feature of the music (Fox 2001).

The problem with this type of definition is that it prioritizes specific materials and their notation over the subcutaneous processes that often (but not always!) yield the surface-level results that it describes. As a result, the *New Grove* definition is unable to grapple with complexism’s underlying (but salient) performance issues other than to unsatisfactorily note that “technical and intellectual difficulties”—concepts impossible to sufficiently define in reference to musical performance—are a “significant aesthetic feature.”

German composer and aesthetic philosopher Claus-Steffen Mahnkopf has more recently coined the terms “complexism” (*Komplexismus*) to refer to this same phenomenon (Mahnkopf 2002a). This term, in my opinion, offers a more nuanced and specific definition and is therefore preferable to “new complexity,” which refers too vaguely to a purported musical idiom or phenomenon, not to mention its supposed novelty, as though asserting self-evident distinctions and categorizations.

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5 Mahnkopf 1990a is the earliest (published) use of the term “Komplexismus” (later translated [as “complexism”] and reprinted in Mahnkopf 1990b). Pace (2015) suggests that Mahnkopf’s coining and subsequent usage of the term was a polemic way of creating a ‘school’ of composition around Ferneyhough (34). As Pace points out, much of Mahnkopf’s work (which I will engage with in greater detail in Chapter 1), ties itself to a progressive historicist reading of nineteenth- and twentieth-century music that places Ferneyhough at the “end of a line from Schoenberg through Webern to Boulez,” and suggests a “Second Darmstadt School” as having been formed around Ferneyhough’s work in the 1980s and 90s (34).
As I will argue in Chapter 1 (which will deal more specifically with these issues), Mahnkopf’s term “complexism” helpfully points to *tendencies* in compositional approaches and attitudes, rather than some specifically-definable style or characteristic(s). In contrast to many other contemporary musical “isms,” complexism is more an ethos and a compositional praxis than a definable idiom: it takes many forms, rejects material-based definitions, and reflects a diversity of compositional approaches. Given this distinction between “new complexity” and “complexism/complexist”, I prefer and will therefore use the latter throughout this thesis; “new complexity” will generally only appear in cited passages in which other authors have used it. Moreover, my own use of the terms “complexity” and “complex” should be taken to refer to a general state of complexity, not (only) to the practice of complexism specifically or narrowly.

Of course, many composers who are typically associated with complexism reject all of these labels altogether. While I acknowledge that this moniker is largely a journalistic one that does not adequately define a school of thought or aesthetic shared by multiple composers, it will still serve as a useful descriptor to identify the musical purview of this thesis, because it is generally acknowledged to point to aesthetic and discursive connections shared by certain composers working today. Despite being self-evident, it is nevertheless important to emphasize that an

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6 This is an important distinction to be made. Much discussion has already taken place on the topic, which I will summarize and augment in due course. Some primary sources relating to this basic but critical point are: Bons 1999, Cassidy 2002, and Mahnkopf 2002a.

7 Toop quotes Michael Finnissy’s outright rejection of the term: “it horrifies me that people say [my] music is complex. It isn’t except in a very superficial detailed kind of way. It’s complex if you accept that human beings are complex, and that all art is complex” (Toop 1988, 5). Chris Dench makes a similar statement in the same article, especially in regards to the question of the playability of representative works; see also Richard Barrett’s very cogent analysis of the issue in Barrett 1992.

8 Richard Toop (2010) aptly refers to Theodor Adorno’s defense of artistic schools and -isms as a frame of reference for a sometimes contradictory body of work: “certainly a faint contradiction is inherent in the linguistic use of ism insofar as in emphasizing conviction and intention it seems to expel the element of involuntariness from art. […]"
individual work—let alone the entire catalogue of any composer—can embody a number of
different aesthetic or compositional qualities, of which complexism may only be one. What draws
me to the composers I address in this thesis is the multifaceted nature of their music; it is neither
my intent to compartmentalize anyone’s work into a constraining category nor to infer that any
sort of complexist canon exists, but to observe some shared approaches across a highly varied
aesthetic landscape and, above all, to comment on how they are manifested during the process of
preparing and performing the music.

My work will therefore not offer a specific definition of musical complexism, but instead
examine complexism from a performance perspective. I will consider complexism to be
categorized by compositional priorities and strategies that require the performer to decouple
aspects of sound production that are integrally coordinated in traditional performance practices,
and to actuate unfamiliar and unpredictable interactions (even conflicts) between these decoupled
parameters. Complexist performance, within the context of this study, will therefore be defined
and characterized by the unpredictable interactions between decoupled and defamiliarized
dimensions of sound production. In Chapter 3, for example, I will discuss the work of Paul Cilliers
on “complex systems” (e.g. computers, economic markets) that are characterized by multi-
parametric interactions that produce highly variable degrees of predictability. As will be developed
more extensively there, such unpredictable interactions are a defining feature of complexist
performance as I define and study it in this thesis, and will be found, in diverse ways, in all the
works I will discuss. In short, this thesis considers a work to be complexist if it generates
performance demands that are complex in Cilliers’ sense.

solidarity with them is better than to disavow them” (Adorno 1997, 24-25).
This thesis therefore situates itself at the confluence of several streams of inquiry into complexism as a general musical phenomenon. Rather than presenting analyses of representative works or a pedagogical take on the issues faced by performers, I will examine the roles and relationships between the major agents—composer, score, performer, performance, and listener—during the act of complexist performance. Importantly, this focus emerges from a contention that complexism is not merely a score- or material-based phenomenon but one that exists at the level of the interpretational system itself. This particular viewpoint will allow us to analyze the performance situation engendered by compositional complexism: a state in which the performer agent does not merely read and translate the implicit complexity of the score, but, uniquely, embodies its multi-perspectival logic.

This thesis is divided into six chapters. In addition to reviewing the relevant literature on my topic, Chapter 1 will survey and contrast the definitions of complexism offered by Richard Toop and Claus-Steffen Mahnkopf. This discussion is not intended to develop a specific definition of complexism, but rather to situate it both aesthetically and historically, and to suggest a number of specific compositional concerns and viewpoints critical to my performance-based study of complexism. For example, it will examine Mahnkopf’s notion of inter- and intra-material richness (a generalized state of polyphony between disjunct materials and strata at multiple levels of a complexist work) as well as a resultant dynamic of multi-level decoupling and defamiliarization. Both concepts describe the relationships between the quantitatively large number of materials

9 This set of agents is often referred to collectively as the “communicative chain.” For reasons that will become clear later in the thesis, I often refer to this same construction as a performance or interpretational “system.”
present in a complexist work and provide a framework and terminology for discussing aspects of complexist performance.

Chapter 2 focuses on the deeper interpretational problems presented by complexism: what Mahnkopf has called the “deconstructionism of the work character and the performance situation” (Mahnkopf 2002a, 56). These interpretational problems are separate from the basic technical issues of complexist performance, many of which have previously been discussed in other articles and theses.\textsuperscript{10} This chapter examines generalized approaches to instrumental writing (specifically, what has been described as “radically idiomatic instrumentalism”) as well as notational practices that emphasize the means of sonic production (“prescriptive notation”). Taken together, these elements foster an environment in which the nature of performance is qualitatively changed not only in contrast to common practice era music, but also other contemporary aesthetics. The chapter concludes with remarks on the interrelated issues of complexist performance practice and ethics, and how these considerations shape both performance and reception.

In the larger design of the thesis, Chapters 1 and 2 are introductory and provide the broader context for Chapter 3, which is the core of my study. Chapter 3 examines the central question of performer agency in complexism. As an inroad to this topic, I adapt the work of two authors whose primary focus was not music: complexity researcher Paul Cilliers and literary theorist Umberto Eco. Cilliers’ work—largely focused on the spheres of technology and the sciences—draws a clear distinction between systems that may be understood as being complicated and those which are complex. He offers the paradigm of a “complex system,” which is defined by a set of interactions through which a quantitatively large group of elements function together in a qualitatively complex

\textsuperscript{10} Schick 1994, for example. Other sources will be cited in the literature review (Section 1.1).
manner. I adapt this formulation to musical complexism and complexist performance, and frame the multipart interactions and relationships between composer, score, performer, performance, and audience agents as a “complexist performance system” that mirrors the implicit complexity of the musical work. I then comment on the inter-agential interactions within the system and the specific ways in which musical complexism fosters a performance situation clearly distinguished from the performance traditions of common practice era music.

The characteristics of the system itself having therefore been established, I then turn to Umberto Eco’s theory of agency in the creation and reception of literary works. A major and unique aspect of Eco’s theory is granting the work itself a large degree of agency in its own interpretation, an idea that is especially relevant to complexism given its particular musical and conceptual concerns. Eco’s resultant tripartite division of interpretive agency between the virtual bodies of the author, work, and interpreter serves as a model I adapt to develop a deeply focused analysis of inter-agential relationships.

Expanding on the paradigms established by Cilliers and Eco, I formulate a structure—the “complexist performance system”—that examines and explores the different ways in which subjectivity interfaces with the dense web of prescriptive notation found in many complexist scores. One major component of this system, the “performance nexus,” will frame the dynamics that complexism creates between agencies during performance. I will argue that, uniquely within complexism, the performer is multiply-situated between the composer, work, and performer agencies and embodies elements of each during performance. This dynamic of “multiple agency” is an extension of the idea of “multiple authorship” often discussed in the field of performance studies. The latter reflects an understanding of the performer as acting with quasi-authorial agency in the creation of a secondary text during performance. While this relates closely to common
practice music, multiple authorship is of limited use in reference to complexism as it does not consider the work as being an active agent in performance, which I view as an essential characteristic of complexist performance. This formulation has important ramifications on the nature of performer agency as well as performance practice, issues that will continue to resonate in the remainder of the thesis.

Chapter 4 develops the idea that the work and performer agencies within the complexist performance system can each be decoupled into what I call “scripts,” rather than be thought to act as unified bodies/agencies. This idea is an essential consideration for the dynamic of multiple agency, and Chapter 4 applies it to examine five pieces for clarinet by composers Joan Arnau Pàmies, Aaron Cassidy, Richard Barrett, and Timothy McCormack. I use the term “script” to refer to a semantic micro-unit, either material or conceptual, that in some way engages or is engaged by an aspect of the performance activity, and is created and followed by the performer agent in preparing and executing the performance. The aim of this chapter is therefore not so much a thorough analysis of selected complexist clarinet pieces, but instead a way to examine and demonstrate how a variety of scripts are essential to the work of the performer in preparing and interpreting a piece.

My intention is for my theoretical framework to be applied to a broad swath of complexist works beyond the repertoire for my instrument. Therefore, my focus on the clarinet and its repertoire should be understood only as a personal frame of reference rather than a definitive and limiting outcome of the paradigms established and presented in Chapter 3. This premise is especially relevant in that the clarinet works I have selected for inclusion in this thesis often occupy a somewhat paradoxical position in regards to the instrument itself, in that they have been composed both for and against it. What I mean by this is that the instrument is most typically
viewed as being a musical object with a set of historically-constructed (or sedimented) characteristics. Works indicative of this particular viewpoint (i.e. the canon of common practice era works, but also many contemporary aesthetics) are often as much about music as a form of material discourse as they are about the clarinet. Complexist works tend to take a different approach to the instrument, treating it as a largely physical object with a set of implicit—objective—acoustical and mechanical characteristics, as well as an object that has a particular relationship with a performer’s body. These paradoxically abstract yet concrete elements often act as determinants of morphological material; in this case, we may describe the works as being about the instrument and its relationship with the player on a more fundamental level. In this sense, my analyses establish paradigms for analogous work on the repertoire of other instruments rather than making specific claims about clarinet repertoire.

Chapter 5 examines how the complexist performance system and, more specifically, the relationship of agents and scripts within the system is fundamentally changed with the passage of time. Cilliers has highlighted the special importance of this facet of complex systems, and I find it to be especially relevant in a musical context given the long and rich histories performers typically have with the works that they prepare and perform. This chapter therefore focuses on how the operation of the complexist performance system is deeply conditioned by its preceding stages and how these histories create contextual pressures that continue to affect the dynamics of performance. Shifting dynamics necessarily have strong implications in regards to complexist performance practice and ethics: in that the decoupling and defamiliarization implied by

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11 For example, whereas the musical discourse in Brahms’ Sonatas for Clarinet and Piano, op. 120 remains essentially intact regardless of the ‘solo’ instrument (i.e. clarinet, viola, flute, theremin, etcetera), a transcription of a complexist clarinet work would likely not be possible as the material and discourse of the piece often emerges from the specific mechanical and acoustic properties of the instrument.
complexist work-concepts and materials typically ossifies over time, specific strategies must be developed by the performer to maintain the requisite dynamic in subsequent performances. To augment this, I analyze my own history and changing performance strategies in regards to Ray Evanoff’s *Narratives* for solo E-flat clarinet, a major complexist work whose particular compositional elements make it a well-suited example for this topic.

Finally, Chapter 6 is a general conclusion to the thesis that reflects not only on the work I present here but also thoughts about potential inroads to future work on the topic.

In this thesis, references and citations are provided in the main text parenthetically, in (Author Date, Page) format. The Works Cited list is correspondingly formatted in an (Author. Date.) style, and is subdivided into musical scores and text sources. Footnotes will therefore exclusively relate to supplementary materials, commentaries, and additional bibliographic connections. Finally, this thesis makes use of a number of highly specific and often unusual terms: in order to highlight the most important of these, I have emphasized their first appearance using *bold italic* text. Terms treated with this typeface should therefore be understood to refer to critical and recurring topics.
Chapter 1: Situating “complexity”

1.1 Literature review

The topic of performer agency within any contemporary musical aesthetic—let alone complexism—has received little attention in academic circles; my topic is therefore a first step toward addressing a substantial gap that exists at the intersection of several scholarly disciplines. I will therefore group the literature surrounding my topic into three broad categories: studies of performer agency in primarily common practice era music; sources dealing with complexism as a general compositional phenomenon; and contributions that theorize complexist performance practice through a largely pedagogical lens.

Treatises on interpretation written in the early and mid-twentieth century typically conceive of an author-centric Platonic ideal of a musical work: a perfect other—beyond the score itself—which performers are tasked with realizing in such a way as to elucidate its immanent structures while limiting the fingerprints of expression to surface details at most. Subjectivity and interpretation (elements typically associated with performer agency) were therefore generally viewed as being two sides of the same coin: both were questionable without the support of objective and defensible analytic insights on harmonic and formal structures and their intrinsic interpretational associations.12

12 See Riemann 1892, Lussy 1892, and Schenker 2000. Adorno 2006 provides a mid-twentieth-century example that, although published posthumously in an incomplete form, remains a useful source for evaluating popular opinions on performance practice in the mid-twentieth century: a palpable sense of tension can be felt between the older Platonic conceptions of interpretation and more contemporary thoughts on performance.
This type of thought continued to dominate scholarship to an extent from the 1960s through the 1980s as the relationship between theorists and performers was hardly a reciprocal one: the work of analysts Edward T. Cone, Janet Schmalfeldt, or Wallace Berry (acting as self-appointed proxy composers to defend putative compositional intent), for example, at least initially maintained the hierarchical power dynamic by arguing for the performance of demonstrable insights into structure-as-immanent-meaning.¹³

Some contemporary scholarship has attempted to bridge this theoretical gap by retooling terminology and analytical frameworks. “Music as performance” has replaced the antiquated “music and performance” in an attempt to decentralize the traditional work-object with its deeply ingrained composer—work—performer hierarchy (Cook 2013, 10). Even so, the analytical scope of these studies is generally limited to Classical and Romantic-era repertoire.¹⁴ While “analysis and performance” has been the topic of much scholarly debate, I contend that most of the work is not applicable to contemporary aesthetics because it is underpinned by methodologies that are heavily indebted to the historically-constructed interpretational implications of functional harmony.

Of the extant literature, there are two relatively recent scholarly works that shaped my initial formation of this thesis topic. First, Nicholas Cook’s (2013) repurposing of Chomsky and linguistic structuralism as generative processes for musical analysis in Beyond the Score (albeit in reference to Lerdahl and Jackendoff’s landmark A Generative Theory of Tonal Music) proved to


¹⁴ See Schmalfeldt 2011, Klorman 2013, Friedman 2014, and Swinkin 2016. While there are examples of recent performance analysis articles dealing with twentieth-century music, the repertoire chosen for study tends to allow for (quasi-)tonal analytical methodologies. See Leong 2008, for example.
be a valuable resource. Although it looms large in the background, there are only a few aspects of Cook’s work that will tie directly into this thesis: his interest in examining the relationship between composer and performer in music emerging from a tradition of improvisation (Cook 2007); the performance of pieces in which the concept of a centralized “work” is problematized (Cook 2007); and some of his examination of complexism as a social phenomenon, with associated remarks on the ethics and goals of complexist performance (Cook 2013).

Second, Carolyn Abbate’s “Music: Drastic or Gnostic?” (2004), which helped stimulate my initial ideas for this thesis (especially the consideration of the performer agent developed in Chapter 3) but does not figure directly in the details of my argument. Abbate contrasts knowledge categories she calls “drastic” and “gnostic,” and provides a helpful new framework for analyzing both performances and performance art. Building on the work of Vladimir Jankélévitch, she defines the schism between drastic and gnostic as being between the knowledge that emerges from physical activity (“drastic”) or from intellectual activity (“gnostic”), the former “involving a category of knowledge that flows from drastic actions or experiences and not from verbally mediated reasoning” (510). Gnostic knowledge, for Abbate, can be loosely defined as the body of musicological and theoretical knowledge dealing with a particular musical work. By splitting the drastic and gnostic self, the performer’s work can become a generative compositional act, making the performer an author of meaning or commentary in tandem with the musical work.

Citing Laurie Anderson’s performance piece Happiness, Abbate reflects on a particular sonic gesture meant to translate the sound of falling bodies captured on film during the September 11th, 2001 terrorist attacks. This vivid drastic gesture, afflicting to those who understand the signifier based on their having faced the real-time tragedy in some capacity, has the potential of calcifying into pale gnostic knowledge as future audiences or interpreters are distanced from the
original event. In confronting the artefacts of signifiers—even within contemporary musical works—the question is raised whether we as performers can (and should) maintain the original signification as a permanent fixture of the work or if we must inevitably allow alternative readings to flourish, possibly adding new and valid meaning: at what point does the drastic within the work become the gnostic, and “which loss is regretted more deeply?” (534). This broader point will be contemplated from a different perspective in Chapter 5, which examines the challenges of maintaining a complexist work’s original signification and dynamic interactions over the course of multiple performances by a single interpreter. That discussion will not rely on the specifics of Abbate’s theorization, but her work did stimulate my first thoughts in this area.

Among contributions relating directly to complexism as a compositional phenomenon, the ongoing series of books *New Music and Aesthetics in the 21st Century* figures very heavily in the field, and has particular importance for this thesis because many of its volumes feature articles that proved invaluable for providing a solid theoretical and historical background in complexist compositional issues. A multi-volume series embracing the work of many authors, it is nonetheless a highly curated collection in which the majority of the articles point towards a shared understanding of certain contemporary compositional phenomena. However, the vast majority of the contributions are not of direct usefulness for this study because they involve composers writing about their own work, typically describing their compositional strategies and treating their composition as an autonomous text, rather than a basis for co-creation by the performer. This gap presents an opportunity for my thesis to fill, by bringing concepts and ideas presented in this context into the field of performance studies.

From this series, Claus-Steffen Mahnkopf’s philosophical and polemical articles—while sometimes controversial—inform much of my background and contextual knowledge regarding
complexism. Many of his articles are cited throughout this thesis and the importance of his thought in formulating this topic cannot be overstated. As I have mentioned, the purview of his work tends to revolve around compositional complexism, and also contextualizes it within broader art-historical narratives that are currently being theorized and debated in the sister disciplines of art/architecture history, theory, and criticism. This is especially relevant in his positioning of complexism within what has been termed the “second” or “reflexive” modernism, a concept that emerged first in sociology but has since been adopted by primarily Central-European art theorists.

Similarly, Richard Toop’s work that bridges the disciplines of traditional musicology and theory figures prominently throughout this thesis, although his focus is mainly on composition. His work engages with many important aspects of the broader discourse and also investigates a variety of musical and conceptual threads at play across the work of several composers. In addition to his seminal “Four Facets of the New Complexity” (Toop 1988), his body of articles that examine the work of Brian Ferneyhough and other (primarily British) complexists is unparalleled in the field. Many of his studies have directly informed the scope and terminology of this thesis and will be referenced throughout.

There is a small but vital body of work relating to complexist performance that also factored into this thesis. The scope of these studies differs from my own topic: whereas I am examining the dynamic of agency from a largely theoretical perspective, these studies have

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typically emerged from compositional, analytical, and pedagogical backgrounds. Major articles by Stuart Paul Duncan (2010) and Tanja Orning (2015) will be referenced in Chapter 2, as their work attempts to bridge some of the gaps between complexist composition and performance by exploring intersections between performance dynamics and elements of complexist composition.

Frank Cox’s masterful “Notes Towards a Performance Practice for Complex Music” (2002) provides an excellent theoretical background for understanding the broad technical and musical issues faced by performers of complexist music (such as microtonality, complex rhythmic layers, and the related extended physical demands). More importantly, it is concerned with performance ethics and how these are enacted. Particularly relevant for this thesis is Cox’s adaptation of ideas from philosophy and economic theory to break down historically-engrained performance values and to demonstrate how they are too inflexible to be of use in analyzing complexist performances. He points towards a set of criteria to determine what a “successful performance” of complex music might be. In the work of Duncan, Orning, and Cox, however, I find that their conclusions regarding the shifted role of the performer in complexism are more suggestive than demonstrative; it is from this observation that my thesis first emerged.

Lastly, there are several performer-oriented studies that address the interpretational concerns of complexist music. These have typically been written by performers active in the field of contemporary music and are often directed towards fellow performers in such a way that they either impart or describe pedagogical strategies for learning complexist music: Steven Schick (1994), Marc Couroux (2002), Mieko Kanno (2007), and Christopher Redgate (2007), for example, all investigate approaches to complexist music written for their instruments (percussion, piano, piano, and oboe, respectively). Each author addresses aspects of contemporary performance practice in broad terms while also discussing the specific instrumental difficulties of a particular
work. Additionally, there are several publications which deal with complexist performance practice from other perspectives. These studies often discuss agency as part of a broader argument or more directly but rather negatively (such as Heaton 1987, which will be engaged with later in this thesis). Ultimately, these sources do not explore performer interpretation or agency with the concentration I will bring to those considerations, but they do provide a starting point for some aspects of my thesis by defining the general scope, terminology, and methodology required for contributing to the field of performance studies.

1.2 Dimensions of musical complexity

Arriving at a concise working definition of musical complexity is a difficult task: as I pointed out in the Introduction, there are a great number of mitigating factors and counter-arguments to the very notion of delineating an aesthetic border around certain composers and works. Therefore, I think it is best to initially dispel all the false equivalencies that surround complexism.

To begin with a banal but important statement, musical complexity does not necessarily equal virtuosic music. Performative difficulty (typically a large component of virtuosity) is a constantly moving target: from Beethoven’s *Hammerklavier* sonata to Paganini and Lizst and onwards to any number of contemporary examples, the threshold of possibility in performance has shifted quite considerably over time and will continue to do so in the future.

Complexity is also not related solely to a qualitative or quantitative density of musical information: works by Pascal Dusapin, for example, feature many of the material hallmarks

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typically associated with complexism, yet the surplus of information on the score can often be
distilled to the trajectory of a single melodic line augmented by dense ornamentation. Similarly,
Stockhausen’s LICHT-era works are qualitatively complex, though the amount of quantitative
complexity at the score level is reduced through deliberate compositional and notational decisions:
-passages of music that switch between precisely-calibrated tempi (to the first decimal!) every few
beats could quite easily be remodeled into a more visually complex style by translating tempo into
intricately notated tuplets over a steady underlying pulse.

Complexism is also difficult to situate historically. At its core, complexism questions
traditional conceptions of musical medium, material, and genre in a search for new aesthetic and
artistic experiences. As Toop remarks, “it is probably one of the few aspects of contemporary art
music to remain faithful to the idea of art as the endless search for the transcendental, and of music
as potential revelation” (Toop 1993, 54). Very often, complexism is framed as being an example
of “high modernism,” an ethos that carries the modernist project forward in opposition to the
stylistically eclectic and fragmented postmodern era (Hamilton 2007, 157). I contend that this
claim, however, vastly oversimplifies the matter and thus creates false assumptions: complexism
is neither a continuation of nor a throwback to an earlier artistic philosophy. As I will describe later
in relation to the work of Claus-Steffen Mahnkopf, complexism is better categorized as belonging
to a new historical era of art that has been called the “second modernism” or “reflexive
modernism.”

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18 It is worth noting that several writers, including Paul Griffiths and Lois Fitch, have referred to Ferneyhough as a
“postmodern modernist”; a distinction that obfuscates more than it clarifies. See Griffiths 1995 at 264, and Fitch 2009.
While there are numerous other wide-ranging discussions of musical complexity, for my purposes it is most productive to focus mainly on the work of Toop and Mahnkopf. They have both contributed extensively to the discourse in terms of philosophical, theoretical, and critical writings and their influence can be felt across most other extant writings on this topic. Furthermore, their work is an excellent study in contrasts: Toop’s work often skirts around the fringes—largely examining what complexity is not—whereas Mahnkopf grapples with forming an inclusive definition of what complexism is. Taken together, they make cogent and compelling arguments for avoiding simple material definitions in favour of viewing complexity as a multi-faceted musical praxis.

Toop’s first (1988) attempt to come to terms with complexism—discussed at the time under the label “new complexity”—examined individual approaches to virtuosity and playability, microtonality, repudiation of a cohesive personal style, and relationship to musical traditions to uncover points of contact between British composers Michael Finnissy, Richard Barrett, James Dillon, and Chris Dench (Toop 1988, 1). Toop’s ambivalence to the grouping of these composers is clear throughout: he admits that the new complexity label “has the effect of lumping together composers who, from many points of view, might prefer to remain separate. But just as there is no smoke without fire, so there are few pigeon-holes without a grain of truth inside them” (1). In part, Toop groups these composers together to form a bulwark against other contemporary British approaches he deems to be musically regressive, in particular “the current waves of ‘neo-Romantics,’ ‘ritualists,’ and sub-minimalists,” who are part of a larger group he dubs “the New

19 See Klippel 2015 for a survey of the many sources that discuss and define complexism. I, however, view his work as flawed in that it categorizes complexism primarily through materials rather than deeper praxes.
Capitulationism” (1).\textsuperscript{20} Most importantly, Toop’s early article formulates a set of deeper musical priorities and interests shared among composers, rather than positing a unified aesthetic position or approach to musical material. Even at this relatively early stage of his work on the topic, Toop senses in complexism an important undercurrent based on philosophy and practice, and explores it further in his later work.

Several important points emerge from Toop’s other articles on complexism.\textsuperscript{21} As I have alluded to previously, an important distinction he makes is between music that is complicated versus music that is complex. Toop contends that these two terms—complicated and complex—are dangerously fraught with subjective connotations: a piece can be complicated based on the organization of its material or difficulty to perform, but cannot necessarily be considered complex based on these criteria (Toop 1993, 44-45). Deployment of the term “complex music” often bears much subjective weight, and very often rests on subjective perception of the work over a real accounting of the complexity of musical detail. Toop therefore argues for a clear distinction between the two terms: the physiological, conceptual, and physical difficulties that arise even in performances of Classical and Romantic music are not necessarily reflective of complexity—they may be simply complicated or virtuosic. Similarly, this idea carries forward into the contemporary era in that a composer who intends to write a piece that features a dense and intricate musical and sonic fabric may not necessarily be composing something complexist so much as appropriating

\textsuperscript{20} This combative approach to defining complexism is adopted by many writers on the topic: both Toop and Mahnkopf subscribe to it, for example.

\textsuperscript{21} Here I am focusing on the articles that examine complexism in broader strokes—especially “On Complexity” (1993) and “Against a Theory of Musical (New) Complexity” (2010)—more so than the many analytical articles and interviews he published during his lifetime.
certain stylistic traits and surface similarities (45-47). The distinction having been established, Toop contends that in a complex composition:

There are not necessarily “many things” (there could be many, but there might be only a few), yet in which I sense many levels of relationships between the few or many things. Whatever the definable cause of these relationships (organic, mechanistic, or even fortuitous), their outcome is something I unreflectingly sense [...] as “richness” (Toop 1993, 48).

Importantly, Toop’s use of “richness” refers not to the density or distinction of the constituent material, but rather the richness of discourse within and external to the system of the work: “complexity does not accumulate, it proliferates” (Toop 2010a, 91).

Taking this as a point of departure, Toop declares the impossibility of formulating a material definition of complexism and, furthermore, of conceptualizing a singular analytical system to examine the praxis, writing that “in general the investigation [of compositional methodologies] does not ‘explain’ the subjective response: it just enriches the labyrinth” (Toop 1993, 48). This is, to him, a positive trait: Toop believes that attempts to arrive at a global systematic understanding of current artistic work can create “procedural ossification” that betrays critical underlying work-concepts (Toop 2010a, 95). Therefore, at its most fundamental, complexist composition seeks ways to proliferate multi-layered relational complexity into all domains of the music: its conception, notation, performance, and reception.

By contrast, Claus-Steffen Mahnkopf’s work attempts to draw a more complete musical and conceptual definition of complexism. His approach is extremely thorough, examining form, material, parametric thinking, rhythmic construction, and general praxis. Here I will not survey all these aspects, instead focusing selectively on the specific components of his work that will carry through this thesis.
Mahnkopf often draws on a number of different philosophical sources for his work: in his treatment of complexism, for instance, he translates many ideas from sociology and art theory into the musical domain. Specifically, he positions complexism aesthetically and historically within the bounds of the “second modernism” or “reflexive modernism,” terms derived from the work of German sociologist Ulrich Beck. Both terms refer to the distinction Beck observes between the nation-state-centered industrial society of the “first modernity” (i.e. the historical period often considered as beginning with the Renaissance) and our current transnational and globalized information society. For Beck, this “second modernity”—as we will also see with its artistic counterpart—is a “reflexive” form of modernity:

What is new is that modernity has begun to modernize its own foundations. This is what it means to say modernity has become reflexive. It has become directed at itself. […] The first modernity depended, tacitly but crucially, on many non-modern structures for its clarity and stability. When modernization begins to transform those structures, and make them modern, they cease to be usable foundations. This is what distinguishes the second modernity (Beck 2004, 27).

According to some philosophers and art theorists, a similar distinction can be found in the arts. Mahnkopf, for example, suggests that the second modernism is a “reaction, response, or result of the postmodern situation” (Mahnkopf 2008, 12) and not a (direct) continuation of artistic tendencies from the first modernism, typically associated with the modernist art of the early twentieth century.22

22 In the interest of clarity, it is worth noting that Mahnkopf and, later in this section, Harry Lehmann prefer the term “second modernity,” perhaps to connect more directly to the origins of the term in Ulrich Beck’s work. However, given that in most histories, “modernity” refers to large temporal divisions (i.e. the Modern era is typically understood as being the post-agrarian industrialized era extending from the Renaissance until today), I have chosen to replace all usages of this term—with the exception of direct quotes—with the more common “modernism,” which is typically used to refer to the cultural movement initiated during the late nineteenth/early twentieth century. While it could be understood that Mahnkopf and Lehmann use “modernity” to reflect larger temporal and artistic periods and
Mahnkopf points out that the concept of a second modernism had already made an entry into the broader discourse surrounding contemporary art and architecture theory—especially in central European academia—before its more recent application to music.\(^\text{23}\) His use of the term is based on two major sources from these fields. The first is German art theorist Heinrich Klotz’s 1994 book *Moderne—Postmoderne—Zweite Moderne* (*Modernism—Postmodernism—Second Modernism*), which Mahnkopf cites as being the first volume to make use of this distinction in architecture (Mahnkopf 2008, 11). Klotz’s tripartite system makes a case for identifying a second modernism in the “deconstructivist” architecture style that emerged from an “increasingly stale” postmodern style: the second modernism in architecture is a counter-movement that embodies “conscious references” to modernism with a new aesthetic outlook (11).

Second, and more importantly, Mahnkopf draws heavily upon Harry Lehmann’s 2006 article “Avant-Garde Today. A Theoretical Model of Aesthetic Modernity,” which proposes an analogous second modernism in the visual arts. Lehmann examines the history of modern visual art from the perspective of “a history of its progressive differentiation,” a series of breaks between the “communicative forms” of art and the aesthetic or moral values of a particular era (Lehmann 2006, 11-12). Tracing this impulse back to the emerging autonomy of art from the Catholic church during the Italian Renaissance, Lehmann theorizes two significant “art-historical caesuras” in the past 150 years: the “first modernism,” an artistic ethos that emerged in the late nineteenth century,

\(^{23}\) As a precedent to his own application of the term to complexist music, Mahnkopf cites Josef Häusler’s description of Brian Ferneyhough’s compositional style as the “harbinger of a ‘second modernity’” (Mahnkopf 2008, 11 note 4).
and the “second modernism,” including the sub-category “reflexive modernism,” as a more recent artistic development that emerged in the late twentieth century (14). (Hereafter I will use the locution second/reflexive modernism, because the reflexive aspect is viewed as the first and ongoing phase of the second modernism and because it specifically relates to complexism as a musical phenomenon.) Simply put, the second/reflexive modernism re-examines and critiques modernist art through a constant re-assessment of its philosophical substructures. It aims to “outdo the predominant art of the present,” not necessarily through the scandal of subverting the historical, formal, and semantic expectations, but rather by taking up the “greatest possible distance to the art system within the art system” (29).

Returning to the discussion of music, Mahnkopf makes a strong case that complexism is not merely an aesthetic predilection that emerged from past artistic styles and movements (i.e. a “high modernist” reading of complexism), but that in some ways it reflects the inherent complexities of the current era. This distinction helpfully indicates that while complexism may bear many of the same hallmarks as modernist music, it is not engaged in the same artistic project and is in fact actively critical of many of its underlying philosophical tenets. Additionally, complexism has absorbed influences from many cultures and art forms, can be seen to respond to

24 Lehmann’s significantly more complex and detailed argument is unfortunately beyond the scope of this thesis; interested parties should consult Lehmann 2006.

25 It is worth noting that Mahnkopf views the second/reflexive modernism as a broad artistic project reflected in many different musical idioms, of which complexism is only one. He makes extensive observations on ways that the second/reflexive modernism may be manifested musically and suggests that these tendencies can be observed in the work of a diverse group of composers who are linked through some commonalities in their artistic praxes. One particularly important connection (especially as far as complexism is concerned) is a shared interest in developing “cohesive” styles using modern material (Mahnkopf 2008, 9): connecting material, form, and work-concept “internally, not simply meta-linguistically” (15). Mahnkopf suggests a partial list of second/reflexive modernist composers: Mark André, Richard Barrett, Pierluigi Billone, Aaron Cassidy, Chaya Czernowin, Sebasitan Claren, Frank Cox, Liza Lim, Claus-Steffen Mahnkopf, Chris Mercer, Brice Pauset, Enno Poppe, Wolfram Schurig, Steven Kazuo Takasugi, Ming Tsao, and Franck Yeznikian (9).
how society is presently organized in terms of embodying the dense web of inter-connectivity and informational surplus characteristic of our time, and is far less concerned with inheriting the centralized canon of Western art music than its modernist predecessor.

Mahnkopf cites three social factors that he views complexism as reflecting musically in some capacity: first, he points to the immense growth of information and knowledge in the science and technology sectors. The superabundance of knowledge emerging from information and distribution systems makes viewing the totality from the outside an impossibility; individuals in contemporary society (like performers of complexist music) are bound by strata and systems with which they are not necessarily in direct contact. Second, he recognizes the simultaneity of different cultures and traditions and the understanding that conceptions of time and history do not necessarily correlate smoothly: multiple perspectives and strata can coexist. Third (and somewhat inscrutably), he points to the “ever-more dominating presence [of] an ever-smaller number of world cultures” (Mahnkopf 2002a, 54).

These observations on contemporary society, while seemingly superfluous, in fact connect to Mahnkopf’s reading of polyphony as being a critical defining element of complexism. His second point, relating to the simultaneity of multiple cultural perspectives and strata coexisting

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26 This development was of course a defining characteristic of the first modernism as well, however, Mahnkopf is alloying himself here with Beck’s view that the current trend towards globalization and transnational societies represents a distinctive sociological break.

27 Mahnkopf’s interest in polyphony is developed most clearly in his article “Theory of Polyphony” (Mahnkopf 2002c), in which he defines polyphony as a compositional means of “contouring […] the differences between the significant musical parameters” (45), and contends that it has been “the constant in western music history since the period of St. Martial” (38, his emphases). More importantly to the discussion of complexism (although out of the scope of this dissertation), he suggests that some contemporary musical aesthetics extend the idea of polyphony beyond the parametrical to deeper processes: he labels these types of polyphonies as poly-processuality, poly-vectoriality, poly-conceptuality, and the poly-work (47-53). Many of Mahnkopf’s compositions engage directly with these ideas: see Mahnkopf 2002b, for example, in which he analyses his own Medusa cycle through the lens of multi-level polyphonies.
within societies, suggests a polyphonic reading of contemporary society that is then reflected in complexism’s “polyvalence of meaning-bearing levels” (Mahnkopf 2002a, 54). In viewing complexism through the broader lens of polyphony, Mahnkopf also suggests ways in which it has emerged from and responds to specific trends in the Western musical tradition, though he qualifies these as “selective affinities” rather than a directly linear progression (61):

the ars subilitor […], some of the English vocal polyphony of the 15th and 16th centuries […], Gesualdo di Venosa, Carl Philipp Emmanuel Bach, the late contrapuntal conception of Johann Sebastian Bach, Beethoven’s Große Fuge, much of Wagner’s work, Max Reger’s thoroughly chromaticized polyphony, Charles Ives’ 4th Symphony, and much of Alban Berg’s work […]; among the already historical or legendary representatives of the newer music, Conlon Nancarrow […], and the exemplary works of the high point of the post-WWII serialists (Gruppen, Polypohonie X) (61).  

Mahnkopf’s definition of complexism therefore emerges directly from these aesthetic and historical considerations. He defines complexist works as containing: (1) a large amount of information, in both quantitative and qualitative respects, (2) a polyvalence of meaning-bearing levels (including ambiguity, ambivalence, and self-contradiction), and (3) a high degree of “binding energies” between the parts and the whole at different levels (Mahnkopf 2002a, 54). He suggests that these tendencies manifest themselves musically in several ways. On the surface, for example, complexist works will often present a highly volatile and dense musical texture comprising complex rhythms and pitch structures. Importantly, this apparent surface tension arises from a deeper trend towards an “abundance of morphology” as well as an interest in cultivating polyphony on multiple levels of the work not only parametrically, but also micro- and macro-

28 Of course, this list largely reflects Mahnkopf’s personal repertory of interests rather than a canon of complexist predecessors or inspirations.
formally (56). Mahnkopf uses the terms “perceptive surplus” and “diagonal listening” to describe this quality of the work: the former refers to the amount of information presented during performance (i.e. primarily the surface material, but also the articulation of deeper formal structures), while the latter refers to the real-time perceptive shift required of the listener and performer given that the totality of material is impossible to grasp through horizontal or vertical listening (56). Mahnkopf describes this musical experience as follows:

Listening remains functional, creating a dialectic between not being able to grasp everything and the sense that one must understand everything […] the apperceptive “I” is thrown back upon its own incapability, forced to concentrate on its own powerlessness or on the over-complexity of the musical object. The hearer can expose themselves to the whole, but cannot master it; there will always remain a supplement of the non-heard (58).

Given, however, that complexism is not only about an abundance of surface detail, Mahnkopf instead directs his attention to the richness and polyphony of intra-material and formal relationships in complexist works. He posits several broader principles that he sees as being inherent to all complexist compositions: “(1) immanentistic semantic, (2) expressivist expression, (3) ‘complexist’ complexity, (4) multi-perspectivity and multi-dimensionality, and (5) the deconstructionism of the work character and performance situation” (Mahnkopf 2002a, 56). While these terms may appear rather inscrutable and circular, they do suggest some important ideas that will prove fruitful in a discussion of complexist performance.

Immanentistic semantic refers to the autonomy of medium and work: all material aspects of a complexist composition are generated by the requirements of the composition itself, meaning

29 Later in the article (cf. with 62-64) he also makes reference to “destructivism” (separate from “deconstructionism of the work character and performance situation”) and “emancipated atonality” as key principles, but as these largely relate to the material domain and compositional praxis, I will not cover them in any detail here.
that the work speaks to nothing other than itself and observes nothing other than itself (Mahnkopf 2002a, 62). *Expressivism* is not given an adequate definition by Mahnkopf, but we can discern that it relates to a musical surface that is both expressive in some capacity (perhaps even in a traditional and subjective manner) and, more importantly, also outwardly expresses the inner morphology of the piece (62-63).

‘*Complexist’ complexity* returns to Mahnkopf’s interest in the second modernism by suggesting that complexist musical grammar (especially the polyphony of meaning-bearing levels) will in some way reflect the socio-cultural complexities of our time (i.e. “the world and its structure,”) in opposition to other types of contemporary musics which may also be regarded as being “complex” on some level but which do not reflect a similar perspective (Mahnkopf 2002a, 63). Mahnkopf’s broadly inclusive list of second/reflexive modernist composers, for example, all compose music and aesthetic experiences that are indeed “complex” but may not be complexist in nature or construction. This aspect of Mahnkopf’s work is admittedly somewhat dubious as he offers no particular rubric for understanding what may or may not constitute ‘complexist’ complexity and therefore does little to clarify the already opaque water that is complexism.

Although Mahnkopf does not offer much specific detail about the latter two terms of his list—*multi-perspectivity and multi-dimensionality*, and the *deconstructionism of the work character and performance situation*—they are, in my opinion, among the more critical of his points, especially in relation to complexist performance. They have therefore informed my thinking in several ways, even though I do not necessarily adopt their framework unreservedly.

As I have noted before, both “multi-perspectivity and multi-dimensionality” refer to Mahnkopf’s interest in polyphony, which often exists on several levels in his consideration of compositional complexism. Together, they indicate the typically divergent natures of materials and
strata present within a single complexist composition; materials that are necessarily derived from and in motion towards separate musical domains and experiences. Furthermore, a complexist work is configured in such a way that it expresses not only the multi-perspectivity of these musical domains from within the framework of a single work but also the complex shifting of their interactions. While Mahnkopf does not suggest a guiding principle for determining which materials may be understood under this heading nor how one may judge their implicit state of multi-perspectivity, elements of this idea will resonate across several sections of this thesis, for example in my consideration of “radically idiomatic instrumentalism” and “prescriptive notation” in Chapter 2, which both describe an approach to composition and notation in which physical and instrumental mechanisms may first be disassembled granularly and then re-combined in unusual and often polyphonic ways.

Mahnkopf’s last defining element, *deconstructionism of the work character and performance situation*, is a more problematic term. His specific use of “deconstruction” in this context is of course intended to connote the branch of philosophical thought and analysis associated firstly with French philosopher Jacques Derrida, along with other philosophers and critical theorists. These associations have important resonances in Mahnkopf’s work, but I do not wish to overburden mine by superficially invoking the critical apparatuses of deconstruction. Therefore, rather than engaging with Mahnkopf’s references to “deconstructionism,” I will go no further than to suggest some ways in which related ideas intersect with the performance of complexist music. And while I will adopt some terminology (to be introduced shortly) that may loosely resonate with or evoke aspects of deconstruction, my aim is not to formally incorporate deconstruction into my model of complexist performance nor to directly engage with its intellectual history.
Mahnkopf posits deconstruction as a necessary facet of the second/reflexive modernism, writing that “the central terms of the First Modernity—determination/indetermination, presence/absence, singularity/reproducibility, chance/necessity […]—have long since ossified to lifeless binary oppositions devoid of any dialectical tension, and must therefore be deconstructed as oppositions” (Mahnkopf 2004a, 9). His use of the term is wide-ranging; in the context of defining complexism, it relates primarily to the manner in which the materials (in terms of their selection and deployment) qualitatively affect the nature of performance.

I will address some of these binary oppositions in chapters 3 and 4, primarily by examining how in complexist music parameters are often decoupled at the level of the score. This term refers to a situation in which a composer has initially dismantled aspects of the physical and instrumental mechanism and then deployed the resultant components in such a way that they are no longer working in tandem. For example, typically unified systems (for clarinetists!) such as embouchure and fingers may be working at cross-purposes, or these systems could be decoupled even further with the actions of individual fingers being deployed separately and polyphonically.30

Decoupled materials will necessarily have important effects on the nature of the work and especially on complexist performance. While this topic is explored at great length in Chapter 3, it is important to mention here that this aspect of complexism is what Mahnkopf is addressing with his term “deconstructionism of the work character and performance situation.” However, for the reasons stated above, I will instead refer to this general state as defamiliarization. While acknowledging that this term also emerges from a long intellectual tradition (primarily in Viktor

30 By way of contrast, we might refer to instrumental music of the common practice era as being coupled in the sense that there is a seamless union between all aspects of the performer’s body and the instrument’s mechanism and that these systems are working together towards a common sonic goal.
Shklovsky’s idea of “ostranenie”), I believe that this term will be more effective than “deconstruction” in referring to these more conceptual elements as it will place the complexist performance situation—especially as experienced by the performer—within a broader context for our consideration. Here too, it is not my intent to fully invoke critical theories of defamiliarization, but to selectively adopt some basic ideas and terms to describe the experience of learning and performing complexist music.\textsuperscript{31}

1.3 Conclusion

As I described in the introduction, it is not my intention to provide a definition of musical complexism but rather to engage with aspects of its performance practice. Therefore, to conclude this chapter and segue to the topic of interpretative issues inherent in complexist music, I will distill what has been covered so far, highlight what I consider to be the most important points, and synthesize some broad concepts and terms for use in later chapters.

First, the idea of \textit{multi-perspectivity}. This is a term that both Mahnkopf and Toop (“richness”) have suggested as being a defining characteristic of complexism. Multi-perspectivity takes several forms, but is typically understood to be the presence of multiple strata of different and often conflicting material within a single work. Although this thesis will primarily make reference to decoupled physical and mechanical elements, what both Mahnkopf and Toop suggest is that the material is immaterial, so to speak. The important qualification is that there are a high number of “meaning-bearing levels” (Mahnkopf 2002a, 54) and that these exist in polyphonic relationships wherein they overlap and point towards different discursive planes in practice and

\textsuperscript{31} I especially wish to avoid the implicit binary in “defamiliarization,” which I do not think adds value to the ideas that it will refer to in this dissertation. However, the term is at least provisionally useful as the basic impulse of my thesis is to demonstrate how complexist performance is fundamentally different to common practice era performance.
performance. Brian Ferneyhough, for example, describes this perceptual superabundance within his own music as a quality of “too-muchness,” writing that: “the ‘too-muchness’ of expression which my work deliberately aims at is the basic presupposition of creative activity, and one has to live with one’s own innate sensations, one’s own convictions, without necessarily negating those of others” (Ferneyhough 1995b, 259). His particular deployment of informational density therefore prioritizes the understanding of a piece as being a “multi-layered experience” (Fitch 2013, 6); an idea which results in much of the immediacy of his work.

Second, these overlapping strata interact in a way that is qualitatively rich and without any clear limits on completion or saturation: the whole of a complex system cannot be defined by the sum of its parts. While it is difficult to define criteria for a “rich” interaction, the volume of material and relationship between elemental strata in the work will typically create a situation in which the superabundance of discourse emerging from the system makes any wider perspective on the totality of the work impossible. This has important ramifications for the nature of performance and reception: it should be noted, however, that the high level of surface density that often emerges from this aspect of complexist compositional this is not reflective in an interest in virtuosity for its own sake.

For example, Toop (2001) points out that Ferneyhough incorporates virtuosity and “the transcendental” on several compositional levels: algorithmic constraints force musical material and invention to overcome numerous obstacles at the pre-compositional stage while the extremely dense products of these processes require musicians to jump similar hurdles at the performance level. The obvious performative difficulty and interest in the transcendental demonstrate Ferneyhough’s interest in complexifying not only his musical materials, but also the performance
situation itself, for instance by defamiliarizing the relationship between performer and score during the act of performance.

Similarly, the idea that complexist relationships are manifested at all levels of the system extends to the established (that is, socially-conditioned) methods of musical listening and understanding, as well as the set of expectations generated in a moment-to-moment experience of the work. For example, Ferneyhough has described his 2003 work for guitar and ensemble *Les froissements d’ailes de Gabriel*, as being “245 bars of total non-sequiturs,” which prevent the audience’s memory from constructing a larger narrative structure as the piece progresses (Toop, 2010b). It is an exploration of the perceptual limits of the audience, in parallel with the challenge of the performers’ musical and physical limitations.

Lastly, the concept of the *virtual* in complexist music. While it is admittedly a more metaphorical term and idea than the others, it will nonetheless be manifested in several aspects of complexism. As a starting point, Tim Rutherford-Johnson has described how the music of Brian Ferneyhough can express our complex relationship with virtual structures inherent in the nature of twentieth and twenty-first century life:

> Just as the sonata form says something about the metaphysics of the eighteenth century, so Ferneyhough’s complexity relates to the metaphysics of the twenty-first. His method of progressively shifting away from the real may take place in an exclusively musical space, but it is formally similar to modern-day financial models, public transportation payment systems, and media storage structures, in which everyday transactions no longer take place between people and objects but in a remote—and fragile—digital space of databases and cloud computing (Rutherford-Johnson 2017, 178).

This perspective on Ferneyhough’s music and the virtual structures of modern society also resonates with ideas in the work of Toop and Mahnkopf, such as the latter’s consideration of musical complexism as reflecting conceptual societal polyphonies. My focus will mainly be on
extrapolating this idea to certain instantiations of the virtual in performance. Foremost will be the consideration of ‘virtual’ instrument-building (in chapters 2 and 4) as a means of defamiliarizing aspects of the performer-instrument relationship. In Chapter 3, I will also describe how the dialogue between score and performer in complexist music occurs in a virtual and contingent space that I call the “complexist performance nexus.” Of course, one could maintain that all music making takes place in a virtual space; when contextual and interpretational considerations are taken into account, the boundaries of any work will extend well beyond the physical score. However, as I will demonstrate, the particular materials and demands of complexism necessitate new ways of reading—or perhaps even a reorganizing—this virtual space and the roles played by the primary agents during the interpretive process.
Chapter 2: Interpretive issues in complexist music

I think there is one thing I do like about the so-called “New Complexity”: it irritates people.
—Brian Ferneyhough

2.1 Introduction

Having surveyed the aesthetic underpinnings and compositionally-based definitions of complexism, I turn now to performance-specific topics. These issues—deeper than surface-level material or technical questions—must be established in order to deal more concretely with the subject of performer agency in subsequent chapters. My work in this chapter will be more abstract, reserving the analysis of musical works for chapters 4 and 5.

From the outset, complexist music has sustained repeated criticism from performers who suggest that the surfeit of notated information leaves little or no room for personal interpretation; or, conversely, that the extreme technical demands push the music past the point of accurate representation, ostensibly turning the piece into a structured improvisation. In both cases, the specificity of the notation as well as the composers’ aesthetic intentions are called into question. Furthermore, holders of these views often question whether—even if a human performer could accurately realize the dense web of notational detail—the composer’s intention as notated by the score can ever be completely perceived—or even understood—by an audience.

These deeply engrained and misguided views extend to academic and critical circles as well. For example, in his 2007 book The Rest is Noise, The New Yorker music critic Alex Ross rejected complexism as not being part of the “mainstream classical tradition” but rather closer to a “free-jazz or avant-rock freak-out […] a mosh pit for the mind,” a remark that all at once grossly

32 Quoted in Ribeiro 2011, at 275.
mischaracterizes complexism, jazz, and rock (Ross 2007, 522). Similarly, British music critic Ivan Hewitt describes complexism in his book Music: Healing the Rift as exemplifying a “latent sadism” on the part of composers directed towards, one supposes, the hapless performers (Hewitt 2003, 140). Elsewhere, he has also excoriated Richard Barrett’s music as being indicative of an “aesthetic of failure” that actively humiliates performers and audiences alike:

Barrett’s entire project is essentially a negative one. It is not a case of asserting his view of things, is more a case of denying our own. This he achieves by disabling and humiliating all those human faculties and powers that create the sense of socially constituted self (Hewitt 1994, 149).

Most egregious of all is possibly the attempt by Roger Marsh, composer and professor of music at the University of York (UK), to transcribe the Arditti Quartet’s performances of Ferneyhough’s string quartets in order to demonstrate that inaccuracies he perceives between the recording and the notation reflect a mannerist improvisation on the part of the quartet rather than an attempt to accurately represent the score. This is accompanied by the suggestion that Ferneyhough’s notation is unnecessarily complex for his aesthetic aims with proposals of simpler ways to notate the material in order to achieve the same aural result (Marsh 1994, 83-86).

As I will demonstrate in this section (and more generally in this thesis), these views are not only intensely reductive and attempt to apply performance values of past aesthetics onto music of the present, but are often typical of a blanket rejection against any type of contemporary music that places the performer in an uncomfortable or unfamiliar aesthetic locale: “it is not the musical difficulty per se from which ‘many respectable musicians’ shy away, but the lack of opportunity to employ […] sound in the technical and aesthetic way acquired during years of study” (Mitchell 1990, 31).
Leaving aside the self-evident materially-based and technical difficulties of performing complexist music, this chapter will therefore investigate three deeper categories of interpretive issues found at the crossroads of compositional ideology and performance objectives. These issues merit consideration as they will inform my approach to agency in Chapter 3. Consequently, this chapter is subdivided into three sections, each examining one of these challenges in detail.

First, in Section 2.2, I will examine the interrelated concepts of “critical virtuosity” (a term coined by Marc Couroux) and “radically idiomatic instrumentalism” (a term used by Richard Barrett and Tanja Orning). Together, they create a framework for understanding a particularly decoupled and defamiliarizing approach to the performer-instrument relationship that is common in many complexist works.

Second, in Section 2.3, I will address notation; specifically, the way in which complexist scores often make use of a prescriptive form of notation that prioritizes physical actions over described musical elements or determinate sounds.

Together, these closely related topics demonstrate the heavy emphasis that is placed on physicality in performance, a shift that signals quantifiable changes in the relationship between performer and score. Both of these previous points inform the third category, which examines ethical problems that arise in the performance and reception of complexist music (Section 2.4). As I will argue, theorizing complexist performance practice and what may constitute a successful performance of those works is a crucial step towards the topic of agency, in that it establishes boundaries and identifies problems in investigating the specific dynamics of interpretation within complexism.
2.2 Radically idiomatic instrumentalism

Given the emphasis that is often placed on informational superabundance in complexism, one might question why composers write largely for human performers and not other means. Purely electronic music, for example, is a medium through which the density of musical information typical of many complexist scores might be realized with total accuracy. Nonetheless, few examples exist. A related question is perhaps whether an acousmatic piece can be complexist: the performance-based definition of complexism that I am advancing suggests that they cannot. Toop offers a similar reading, contending that the predominance of instrumental pieces indicates that the emphasis placed on physicality and energetic confrontation between performer and score is more highly valued than the possibility of ‘perfection’ offered by acousmatic music (Toop 2010a, 93). While space does not allow for further discussion of this point, it is nevertheless an important one to keep in mind: a recurring theme for the remainder of the thesis will be the often confrontational relationship between performer, instrument, and score as a key—if not the key—aspect of complexism.

Two terms have emerged to describe this interest in physicality in performance and the relationship it engenders with the performer. In his article about Xenakis’ daunting work for solo piano, Evryali, Pianist Marc Couroux (2002) coined the term “critical virtuosity” to refer to composers who “deliberately [write] against conventional physical paradigms in order to trigger new relationships between body and matter” (54). This terminology is especially pointed towards works that push beyond the boundaries of being simply a threshold challenge into “deliberately

33 For example, Richard Barrett’s major installation and concert work Opening of the Mouth includes two acousmatic works: Zungenentwurzeln and Landschaft mit Urnenwesen. Claus-Steffen Mahnkopf has also composed two 8-channel tape works: D.E.A.T.H (2001/02) and void–mal d’archive (2002/03).
inefficient” writing, as the goal of the former may still be clear playability, albeit at an extremely high level (55). At its core, a work exhibiting critical virtuosity is one that does not take the traditionally-established relationship between performer and instrument for granted; the “drama” of the piece—or at least a major element of it—emerges from the magnification of this fundamental relationship and the deliberate alienation of the performer from the conventional methods of instrumental sound production.³⁴

In this respect, works emblematic of critical virtuosity deliberately undermine the cult of the virtuoso performer that originated in the nineteenth century but has been carried forward through to the twenty-first: Couroux maintains (and rightly so!) that there has been a refusal on the part of the performer to abandon the image of an individual achieving a seamless mechanical and expressive unity with their instrument in favour of allowing the “performative persona [to] disintegrate on stage” (Couroux 2002, 55). Of course, a performer faces potential ethical pitfalls in the course of learning and performing these types of pieces: Couroux points out that “a courageous and deliberate act of faith is required from the performer […] to transcend the body (and one’s self-imposed, often unconscious, set of limitations) and to open up new realms of perception and physicality” (57).

This idea suggests an important point that will resonate strongly with Frank Cox’s remarks on performance practice and evaluation of successful performances, to be considered below. In brief, however, we can observe that Mahnkopf’s “deconstructionism of the work character and performance situation,” despite the risks of invoking a loaded term, nonetheless usefully reflects a

³⁴ Interestingly, Couroux describes Ferneyhough’s piano music as being intrinsically pianistic, tapping “into the classical performer’s reservoir of learned physical gestures,” and therefore more of a threshold challenge rather than indicative of critical virtuosity (54). I will reserve commentary and critique of this particular point as there are more important issues that emerge from Couroux’s article.
critical approach to the received traditions of performance practice. Because of the complexist values established at the compositional level, performers must develop new strategies and values for their own work performing complexist music.\textsuperscript{35}

While Couroux’s work does point to important differences between traditional performance practice and the issues raised by some contemporary idioms, there are aspects of critical virtuosity that I find unsatisfactory. Couroux’s term carries an implicit critique of the works with which he associates it; in his reflection that after each performance of \textit{Evryali} “the uneasiness remains, and so do the scars of having breached a seemingly unbreachable performative ethic,” one senses that he sees a somewhat transgressive element to what he labels a deliberately unidiomatic piece (Couroux 2002, 66). Of course, I acknowledge that Xenakis (the primary topic of Couroux’s article) is \textit{not} a complexist composer and the interpretation of his works will necessarily have different dynamics than the performance of a complexist work. For example, many (including Couroux) argue that the difficulty of Xenakis’ music emerges from its inherent impracticalities rather than an effort on the part of the composer to test the limits of the possible. Despite this, I think that the broader implications of Couroux’s arguments do bear some criticism here as what he describes is not the case for \textit{all} compositions that deliberately present a performative threshold challenge. Suggesting as Couroux does that a certain compositional style embodies “deliberately inefficient” writing demonstrates an allegiance to a distinctly antiquated view of performance practice that values a transparent and linear relationship between composer,

\textsuperscript{35} At the risk of being polemical, this is an important issue to be raised with a wider swath of contemporary works ostensibly considered radical or avant-garde: newness is often only understood in terms of material, while antiquated views of the performer and established structures of music-making and presentation are accepted without question. If contemporary artists are truly committed to their project, radically new performance experiences must be actively pursued and developed.
score, performer, and audience. (This will be more closely examined and critiqued in Section 2.4 in relation to Frank Cox’s concept of “high-modernist model of performance practice.”)

Given his presupposition of many elements of the traditional performance practice that his terminology purports to dismantle, Couroux’s reading is not as subversive as he perhaps believes it to be. The crucial misstep is that his rigid conceptualizing of performance does not take into account the critical and often deliberately paradigm-subverting basis of some contemporary aesthetics such as complexism. In fact, as I will demonstrate below, many composers approach the relationship between the performer’s body and instrument in a generative sense instead of the deliberately degenerative connotation implied by critical virtuosity.

Cellist Tanja Orning offers the more nuanced and specific term *radically idiomatic instrumentalism* to describe works that would fit into more or less the same category proposed by Couroux (Orning 2015, 313). Through the lens of Klaus K. Hübler’s miniature *Opus Breve* for solo cello (a piece that is notated on multiple staves of discrete prescriptive physical actions), Orning describes a specific approach to instrumental writing in which traditional mechanisms and practices are not so much transgressed as disassembled and rebuilt in a new way. She notes that this term originates with composer Richard Barrett who describes it (largely in reference to his own practice) as being:

> a way of composing which would attempt to derive the musical material of a work from a contemplation of the instrument or instruments in question, the mechanics of playing and the physical relationship between player and instrument, and, last but not least, the history of all those things, how they came to be as they are, recognising a perspective between the central and marginal zones of the space of sound-form-possibilities offered by the instrument but without setting up distinctions between “traditional” and “extended” instrumental techniques (Barrett 2017, 17).
Orning’s definition largely follows Barrett’s, but pinpoints the performer-instrument relationship, identifying “a permanent tension, between […] deep knowledge of the instrument’s potential, coupled with […] conceptual ideals concerning the disassembling of the physical gestures” (305).

To examine the term more closely, we can begin by noting that “radical” offers two discrete but overlapping meanings. First, it refers to the derivation of compositional materials from the fundamental roots of the performer-instrument relationship. This aspect, highlighted in Barrett’s definition, contains both tangible and abstract elements: the performer-instrument relationship is not only the obvious physical one, but also a set of sedimented histories and precedents that can be unpacked, examined, and re-contextualized. Second, “radical” also refers to the way in which such elements are stretched into unfamiliar territory well beyond what is traditionally associated with the instrument and the extreme states of physicality that representative works embody.

“Idiomatic” is a more contentious word, having had many different meanings throughout history. Like “impossibility,” evolving techniques and standards of performance mean that idiomatic writing cannot be pinned down to any specific material definition. Therefore, in the case of radically idiomatic instrumentalism, “idiomatic” is defined as referring to the set of mechanical and positional possibilities inherent in the specific instrument-performer nexus. In examining the instrument as an object, for example, material can be derived from the various actions of the mechanism as well as from inherent acoustical properties. Similarly, elements of the performer’s body relating to sound production such as breath, articulation, embouchure, the discrete actions of hands and fingers, and so on, may be similarly disassembled and recombined in new ways: such processes actively decouple and defamiliarize both the physical and historical constructs of the player-instrument relationship.
The parametric separation of instrumental and physical mechanism, however, is often more of a starting point: Barrett (2017) describes the process of “resynthesis” in which the various material threads are reassembled “in the sonic-structural shape of the envisioned composition” (17). In this sense, form and material can become uniquely synthesized with the instrument itself: composition becomes a process of building a virtual instrument that exists singularly within the domain of the work. This virtual instrument is then highly idiomatic in the sense that its specific processes serve only to articulate the materials encoded by the composer. From this point, the piece itself: “could then perhaps be viewed as a window into an entire repertoire that does not and will not exist, like a lost world of which a single artefact remains, an object which should be shaped so as somehow to invoke that whole world” (17).

For example, in his knospend-gespaltener for solo clarinet in C, Barrett makes use of the properties of clarinet as a stopped tube (and therefore overblowing at the interval of a twelfth and producing only odd-numbered overtones over the fundamental pitch) as harmonic and morphological material while also repurposing keys traditionally used as trill facilitators into secondary register keys, a means of articulating and embellishing gestures, or mechanisms through which incredibly subtle microtonal gradations may be produced. The piece is therefore fundamentally about the instrument and, even more broadly, about the stepping away from the historically sedimented relationship between performer and instrument; Barrett describes how “every facet of the composition […] evolves from the nature and potential of the relationship between instrument and player” (Fox 2006, 27).36

36 Similar approaches will be examined in Section 4.4 in relation to Barrett’s work for solo bass clarinet CHARON, which is a loosely-bound companion piece to knospend-gespaltener, and Timothy McCormack’s RAW MATTER for solo bass clarinet. Of course, ‘virtual’ instrument-building has been a feature of many twentieth- and twenty-first-century works: though composed with a different focus in mind, Heinz Holliger’s Cardiophonie, Vinko Globokar’s
Works representative of radically idiomatic instrumentalism are therefore perhaps unidiomatic in the generic common practice era sense—a major stumbling block in Coroux’s theory of “critical virtuosity”—however, given how material emerges from a granular examination of physical and instrumental mechanism, they are idiomatic on a significantly deeper level, and even radical in that sense. Many elements of this compositional approach intersect with fundamental aspects of complexist performance: in Chapters 3 and 4, for example, I will describe how a radically idiomatic approach leads to an altered work-concept and performance situation and requires the performer to reformulate their interpretive approach.

Of course, some composers will choose to maintain the level of material decoupling: through various notational practices, these elements can to a greater or lesser degree remain independent strata in the score. The sonic result of this approach will typically be an unstable and largely indeterminate one as it emerges from the unpredictable confluence of volatile action-based inputs and outcomes involving independent aspects of the performer and their instrument. I think, however, that the generative approach exemplified by Barrett is more indicative of an “idiomatic” instrumental work; I will therefore postpone further commentary on this other approach, and address it later in greater detail in chapters 4 and 5.

Voix instrumentalisée, or Mauricio Kagel’s Atem, as well as numerous works that effectively extend the instrument though live electronic means, such as some of the later electroacoustic works by Luigi Nono, could be considered as examples.

37 Analyses of representative works in Chapter 4 will examine actual applications of this concept. For further exegesis on the topic of radically idiomatic instrumentalism as a compositional concept, see also Barrett 1996.
2.3 Prescriptive notation

It is impossible to overstate the important role that notation plays in the performance of any piece of music. Like the radically idiomatic approach to instrumental writing, the use of a specific notational image in complexist composition can an important locus for musical discourse on par with—or even surpassing—the material content of a piece. An (admittedly cursory) overview of one particular notational practice common to complexism is therefore warranted here.

Mieko Kanno describes two basic categories of notational practice in Western music: **descriptive** and **prescriptive** notation (Kanno 2007, 232). Scores of the common practice period are typically written with **descriptive notation**, a system that informs the performer about the sound of a work through parameters such as pitch, rhythm, tempo, and nuance. While this system has the capacity to be highly specific, there are many crucial details that are not—or unable to be—notated. Stylistic elements and instrumental timbre, for example, are major blind spots in descriptive notation as we know it: while a composer is able to deploy vivid terminology within their scores to encourage a particular reading, much of the sonic result (as opposed to musical result) is left to the discretion and understanding of the performer. Kanno identifies this as a major issue in contemporary music as the specificity of new sonorities explored by composers has not been matched by an equal expansion of descriptive notational language:

There are some contemporary composers who consider that a new work is fully ‘complete’ only when there is a recording that

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38 These categories were originally proposed in Seeger 1958. It is worth noting that some important notational types do not fall neatly into either category—graphic notation, for example—and are therefore largely left out of the paradigm. Furthermore, the category of descriptive notation does not take into account many of the prescriptively-based subtleties that have developed in the traditional Western notation system since its early origins. Given this, these two systems should not be thought of as binary oppositions, but rather as two poles on a spectrum.

39 Of course, established performance practice norms of historical styles and various performance traditions can be passed on to performers in other ways despite being absent from notated scores.
accompanies the score. The recording adds an extra dimension to the missing parts in the notated description of the work and so assists notation in improving its power of description (233).\textsuperscript{40}

There is obviously a great deal more nuance in descriptive notation than can be covered here; the important point I want to make is that the descriptive notational system fosters a direct and transparent relationship between the notated score and the performed sound. This is because of the inherent traceability of the notation: timbre and nuance aside, the signs and symbols in the score provide an accurate rendering of the sonic object. The broader implication of this is that the relationship between composer, score, performer, and audience is similarly transparent, with the actions of each agent fully traceable and quantifiable.

At its most basic, \textit{prescriptive notation} is a system in which the composer specifies the \textit{method} of making sound with the body and instrument, meaning that the notation typically refers to discrete actions rather than resultant sounds. Kanno points out that prescriptive elements have existed subsidiarily within the context of descriptive notational practices for some time—organ stops, some stringed instrument techniques such as left-hand harmonics, and the use of mutes, for example—but only with contemporary music has the use of prescriptive notation become more systematic (Kanno 2007, 235-38).\textsuperscript{41}

While a detailed history of its development and usage is outside the scope of this thesis, one example in particular—Luciano Berio’s \textit{Gesti} for solo alto recorder—merits some brief

\textsuperscript{40} One particularly notable example of this within the output of a major contemporary composer are the works of Karlheinz Stockhausen composed between circa 1975 and 2007, and especially those which involved staged or theatrical elements. His vast catalogue of authorized CD recordings and DVD rehearsal/performance films are meant to be taken as an \textit{urtext} along with the score. In fact, in some cases, the indications in the score are either unclear or have been altered since their original publication and therefore require the additional media as clarification.

\textsuperscript{41} Exceptions, of course, exist: tablature notation, for example, is a well-established type of fully-prescriptive notation whose usage can be traced back centuries not only in Western classical scores for fretted instruments but also in the traditional notational practices of numerous non-Western cultures such as the Japanese shamisen.
remarks here. Not only does it occupy an important historical position as one of the first pieces in
the wind instrument repertoire to use fully prescriptive notation but also its particular usage of this
notational system will anticipate two of the pieces that will be analyzed in Chapter 4. Composed
for Frans Brüggen in 1966, Berio begins Gesti from a position of complete separation between the
actions of the performer’s mouth and hands. These are notated on two separate staves and, over
the course of the piece, slowly become integrated. The level of direct interplay between the layers
is minimal: the only fully-notated elements of the piece are the diverse actions of the mouth
(voicing, articulation, breath, and singing techniques) against which Berio first asks the performer
to repeatedly finger a short passage from the Allegro of Telemann’s D minor Sonata for Recorder
and Continuo as rapidly as possible and, later, a constant glissando between specified finger
positions. Crucially, the indeterminate nature of the relationship between hands and mouth figures
heavily into the aesthetic of the work. Berio assures the performer that:

because of the frequent ‘contradictions’ between the tension of the
lips and the finger positions, and because of the speed of changing
patterns, the resulting sound is unpredictable, and very often
overblown harmonics will be heard. Sometimes the instrument will
produce no sound at all (Berio 1966, preface).

Gesti is by no means a complexist piece, but Berio’s use of prescriptive notation to codify
separate material layers operating within the bounds of a single work anticipates the interest shared
by many complexist composers in not only engaging with overlapping strata of musical
information but also notating these layers as discrete entities within a score. In complexist music,
this compositional approach is often manifested at the score level through a similar use of layered
prescriptive notation: it is not uncommon to see, for example, constellations of overlapping
musical information, discrete physical actions overlaid over staff-based descriptive notation,
multiple concurrently-running staves for separate physical actions, or tablature notation which
prescribes specific actions for each element of the player’s physical mechanism such as individual fingers or hands, the actions of the mouth or bow, and so on.

Critically, prescriptive notation fosters a performance situation in which a heavy emphasis is placed on the confrontational combination of discrete actions: many of these styles of layered notation could be reduced to a single staff but, crucially, are not. Furthermore, in contrast to descriptive notation, the score does not accurately represent the sonic object: certain actions may yield predictable results, but the layering of actions will usually result in volatile and transitory sounds. This polyphony between materials and physical actions denies easy comprehension: in that “complexist music […] shifts the total presence of music into a changing transitional space of different degrees of presence and absence” (Mahnkopf 2002a, 60), it decouples, defamiliarizes, and critiques the actions of performance and perception. Theorist Stuart Paul Duncan (2010) places a similar importance on complexist notation, viewing complexist notational practice not as an end but a means to “[‘complexify’] the relationships between composer, score, performer, and listener” (137). The often unusually or contradictory actions that emerge from radically idiomatic instrumentalism also heightens the complexity of these relationships and, together with notation, fosters a radically different relationship between agents.

There are two major ramifications that emerge from this new configuration. The first is a deeper focus on choreographed physical action in performance. In that both materials and morphological determinants are detached from their classically codified uses, the performer is forced to reconsider—and in more extreme examples, relearn—the connections and pathways between body and instrument that have been cultivated through years of conservatory-style training. Many composers take this as a starting point for their work: Timothy McCormack, for example, highlights the physical relationship between performer and instrument as a major impetus
for his music: “sound is not simply a byproduct, the proof of executed physical actions. It is also the objective of those actions; it is why those actions are specified. Just as body and instrument engage in a mediative relationship, so do, by extension, action and sound” (McCormack 2010, 15). This multi-faceted point relies on examining specific approaches within musical works and, as such, is only listed here as an opening statement in anticipation of more nuanced work in Chapter 4.

Second, given that prescriptively-notated scores specify actions instead of sounds, the performer is often confronted with a degree of cognitive and physical dissonance in their interaction with the score. Multiple strands of overlaid materials and structures will often result in distinct physical and musical aporia: unresolvable conflicts or contradictions between the overlaid components. The unique performance situation emerging from these conflicts requires the performer to embrace a level of sonic indeterminacy (though not improvisation!) in seeming opposition to the notational specificity. The specific performance situation is clearly dependent on a number of contextualizing factors, but the broader point to be made here is that the notational practice itself implies a different relationship between performer and score. Kanno, for example, muses that prescriptive notation:

offers and invites the performer into a position of creative equality and discourse with the composer, or at least with the piece which is being performed. The identity of the work in this case is most manifest in the sensory quality of sound rather than in the metaphysical understanding of a given form of music, and this awareness is vital in understanding the unique orientation of the work’s aesthetic philosophy (Kanno 2007, 248).

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42 In the interest of lexical clarity, Claus-Steffen Mahnkopf and several other contributors to the New Music and Aesthetics in the 21st Century series favour the Latin term “aporia” in the context of describing the musical and physical contradictions found in complexist compositions. While acknowledging that its definition has somewhat different connotations in philosophical circles, I will follow Mahnkopf’s lead and use this term interchangeably with “musical/physical contradictions.”
In this sense, the descriptive notational practices used by complexist composers is more emblematic of the beginning of a process than an end result. Accordingly, it opens the door for a unique type of performer agency, to be explored in Chapter 3.

2.4 Performance practice

Frank Cox’s masterful article “Notes Toward a Performance Practice for Complex Music” provides an excellent summary of how the conceptual, compositional, and notational issues I have been discussing require the formulation of new performance practices and values. His multifaceted article establishes some boundaries that contextualize important issues, suggests specific performance values relevant to complexist interpretation, and critiques the application of antiquated perceptive and critical constructs as a means for evaluating complexist performances. Given that a summary of Cox’s immense article could never do his work proper justice, this section purports to be nothing more than a tracing of two related threads—performance practice and reception—of his much broader argument.

Cox reviews several distinct models of performance practice and critical reception through the course of his article. The most relevant of these to my thesis is what Cox labels the “high-modernist model of performance practice” (Cox 2002, 71). The central pillar of this system is the absolutist valuation of a transparent and linear relationship between composer, score, performer, performance, and audience (a construction usually referred to as the communicative chain). Typically, the goal of the performer within this system is understood to be performance as mediation: that is, the accurate realization of all notated elements in the score. Effected properly, this practice creates a clear and audible projection of the work for the apperception of an audience.
Given this emphasis on transparency, the model takes an extremely rigid view of what constitutes a correct or incorrect performance: the quantifiable level of accuracy demanded from the performer is evaluated by the degree of clear correspondence between notation and realization. The interpretive power of the performer is obviously fairly diminished in this model, but Cox posits that some flexibility can exist within this basic framework. Alongside the more absolutist “hard” version of the model that I have just described, there is a “soft” version in which some interpretational decisions may occasionally override the basic level of clarity—but the overall demands of the system remain the same (Cox 2002, 72).

The high-modernist model emerged in the early twentieth century largely as a reaction against what early modernists viewed as the “merely willful and illegitimate aspects of Romantic performance practice” (Cox 2002, 72, note 2). This model was especially valued by composers in the 1920s and 30s: in France, Igor Stravinsky and other neoclassicists favoured crystalline musical execution over so-called interpretation; the Neue Sachlichkeit (New Objectivity) movement in Germany—of which composer Paul Hindemith is the most well-known musical example—similarly favoured a more austere performance style. The high-modernist model was also valued by musical aesthetics that emerged in the latter half of the twentieth century: forms as divergent as integral serialism and American minimalism both favour an absolutist version of the model as a high level of precision is required to trace the aural logic and processes of the pieces during performance.

43 Stravinsky (1966), for example, has suggested that performances of his Octet, a major neo-classical work, should reflect the fact that it is based on objective musical materials rather than emotive elements.
Cox is ultimately critical of the high-modernist model not only because of its frequent retroactive application to pre-modernist music but also because of the ever-increasing “artificially high standards of accuracy” that it demands (Cox 2002, 73, note 2). He traces a shift in interpretational focus and audience reception in the last seventy years in large part incited by the ever-dominant recording industry that allows for artificially perfect performances to become a norm. Although not inherently negative traits in and of themselves, the technical accuracy and interpretive clarity made possible by recording technology as well as the ubiquity of recorded media in our society has led to a dynamic of tonal and interpretational homogenization in the performances of both common practice era and contemporary musics (73, note 2).

Complexist music obviously presents numerous fundamental challenges to the currently hegemonic high-modernist model. As I have previously noted, quantitative changes in musical language, notation, and approaches to instrumental writing have qualitatively changed the nature of performance. Stated plainly, these elements undermine the ability to evaluate complexist performance within a high-modernist rubric. To choose one example, complexist notation is deliberately opaque and layered, often deciphered more than read.\textsuperscript{44} As a tension emerges between the highly-rational notation and the often non-rational (or unquantifiable) sonic results, the communicative transparency between composer, score, performer, and audience disappears; previous points of connection instead become “overlapping series of volatile conflicts” (Cox 2002, 76).

\textsuperscript{44} Opaque is meant to be understood here without a negative connotation: as Cox suggests, “to paraphrase Derrida, notation is always already ‘writing,’ with all its historical sedimentations” (Cox 2002, 76). I understand this to refer to the weight of material and intra-material relationships that notation must necessarily bear in complexism.
Cox points to this diminished capacity for direct inter-agential communication as a major reason for the rejection of complexism by most performers and audiences. Viewed through the reductive lens of the high-modernist model, the aesthetically-desirable tension and conflict implicit in complexist notation is instead identified as a communicative failure. The critical examples provided at the beginning of this chapter (Alex Ross, Ivan Hewitt, and Roger Marsh) are emblematic of this viewpoint; to these voices, I now add two quotations from British clarinetist Roger Heaton, who will summarize many of the prevailing attitudes from the side of the conventional performer. Though similar in spirit to the earlier examples, they will provide us the opportunity to examine the conflict between high-modernist and complexist performance practice more precisely:

Because the pieces are impossible, the performer has to fake and to improvise certain sections; players familiar with the style, and probably well practised through free improvisation, can get away with it. This leads to the possibility of the imaginative, but technically less competent, players performing these pieces, whereas a player with a sound traditional technique (the only one to have!) would not attempt something which has no regard for the instrument while still, by notation, setting out its terms of reference within the tradition from which that instrument comes. […]

The absurdity of the excesses of the New Complexity lies not merely in the precise notation of “expression”, but in the subjugation and manipulation of the performer, who can only conclude that his efforts are ultimately of secondary importance. The player confronted by these impossible works, is defeated before even beginning, and ultimately discouraged and depressed by the approximations which occur, challenging his integrity (Heaton, 1987, 32-33).

It is not necessary to go into a point-by-point rebuttal of Heaton’s reductive attitude; in fact, two of his bigger criticisms—“no regard for the instrument” and “in the subjugation and
manipulation, [the performer’s] efforts are ultimately of secondary importance”—have already been addressed in this chapter and will continue to be revisited in the remainder of the thesis.\footnote{It is worth mentioning that these values are strongly held throughout the classical music institution at all levels. The general conservatism of the establishment has created a situation in which very few works that embody qualitatively new performative challenges are programmed by major ensembles or institutions: instead, the “new” music that is programmed is typically of an aesthetic that can be easily evaluated under the absolutist incarnation of the high-modernist model of performance practice. Cox (2002) refers to this as “official new music,” the performance of which allows institutions to engage with some contemporary music (for primarily marketing reasons) while still operating within the high-modernist rubric (89). These values are in turn reflected in pedagogy: the training offered by major institutions typically does not adequately prepare musicians for the demands required of performatively-challenging contemporary music, drastically reducing the potential for these to be programmed in the professional world.}

Two related elements of his criticisms, however, bear further discussion: first, the supposed failure of notation or concept that requires the performer to “free improvise” or “fake” what is lacking; and second, the implication of failure, defeat or a loss of integrity on the part of the performer. Such feelings clearly originate in Platonic attitudes towards musical works as well as from the problems of applying the high-modernist model to complexist performance. In that the latter paradigm clearly delineates poles of correct and incorrect, it creates a situation in which performers are viewed as being powerless in the face of the extreme demands of the composer and score and at risk of losing the “illusion of absolute technical mastery” (Cox 2002, 89). Cox describes the resultant sentiment of needing to fake or improvise as a means of maintaining control over “the triumph of professional absolutism” (89-94) and contends that these feelings extend into the domain of the audience as well. The strain that complexism places on the high-modernist communicative chain requires audiences to blindly trust rather than objectively know that what they are hearing is in fact an authentic recreation of the score (77-78). This situation is exacerbated by the “lack of competitive testability” in complexism, a situation that has fostered an environment
in which sloppiness and fakery *can* be exploited by willful performers—a performance model Cox refers to as “absolute self-assertion” (77-78).46

Cox concludes his article by presenting some useful adaptations of the high-modernist model to suit complexist performance: a set of four key revisions whose focus is primarily on “enabling responsible and vital realizations/interpretations” (Cox 2002, 102). Of particular importance is that Cox allows these set of criteria to emerge from the unique challenges and dynamics of complexism rather than be imposed upon it.

First, he rejects the idea that a single authoritative realization can be made of a complexist work. Understanding that complexism inhabits the intersection between physical limitation, semantic density, and multivalent material strata, the focus of performance pivots towards “responsible interpretation” now liberated from negative connotations under the high-modernist model (Cox 2002, 102). This is in opposition to the idea of a “realization,” as Heaton’s criticisms would suggest as a solution. Reductionist approaches to works that bracket out material problems are antithetical to the work itself, as the complexity of performance is a microcosm of the complexity of the work. This performative complexism is to be confronted and enacted, not resolved in a solution that eliminates the tensions and contradictions inherent in the practice.

Second, the “communicative chain” between composer, score, performer, and audience that the high-modernist model presupposes to be direct and linear is instead redefined and understood as being as a set of overlapping conflicts. Each of these agents have their own set of

46 While Cox goes into great detail on this very interesting and crucial point throughout the article, it is too tangential to my main argument to fully engage with here.
intentions, structures, and language; furthermore, these fundamental differences may exceed the limitations of each other:

Conception may surpass what can be notated, performed, or perceived; notation can specify tasks which cannot be performed, and even if they were performable, could not be accurately perceived; performance can realize that which cannot be notated, and cannot be determinately perceived; and perception/reception converts all it actively or passively receives into its own form (Cox 2002, 103).

Therefore, the obfuscation at this level is not only expected, but welcomed. Despite the “impossibility of achieving a personal correspondence,” Cox encourages the creation of “analogical bridges” that establish alternate connections between agents during the responsible interpretation of complexist music (Cox 2002, 103). This concept is absolutely crucial going forward: my work in Chapter 3 will consider the primary agents within the communicative chain as no longer being clearly delimited and segregated, thereby allowing the performer to embody aspects of all agents during performance. In this context, Cox’s “analogical bridges” will be enacted through my theory of semantic micro-units (i.e. “scripts”) mediating between agents during performance.

Third, while retaining the highest technical standards, the imperative for responsible interpretation should be driven by the performer in a confrontation with the materials of a piece. Cox suggests that judgments of quality and accuracy will become more informed through specialized training and knowledge, despite the lack of competitive comparison among the newest and most radical of works. Encroaching on human psychology, behaviour, and the elusive criteria

47 His use of “realize” in this context (i.e. “performance can realize that which cannot be notated”) does not refer to “realizations” as negatively characterized above.
by which responsibility may be defined, this topic is clearly something of a Pandora’s Box, and will therefore be bracketed out of the remainder of the thesis.

Fourth, intuitive aspects of interpretation should be welcome within the model, but must not “usurp the responsible realization of the specifically notated tasks” (Cox 2002, 104). Of course, the human element is the key to complexist interpretation—Toop’s remark about the lack of acousmatic complexist pieces being an apt commentary on this point—but it should be second to the accurate realization of the piece’s material demands. Given the moral challenge posed by the performance of complex music, it is incumbent on the performer to accept the imperative and set reasonable self-standards with the understanding that there can be no perfection except in authenticity and physically embodying the multiplicity of meaning within a work.

2.5 Conclusion

Given the material preconditions of radically idiomatic instrumentalism coupled with prescriptive notation, what then, within Cox’s alternate model, is fidelity in performance? Ferneyhough, for example, associates it with performance of a subjectively-perceived understanding of a musical work’s innate nature:

The criteria for aesthetically adequate performances lie in the extent to which the performer is technically and spiritually able to recognize and embody the demands of fidelity (NOT ‘exactitude’!). It is not a question of 20% or 99% ‘of the notes’ (Ferneyhough 1995c, 71).

This resonates with Cox’s definition of responsible interpretation in that the performer is tasked with embodying a greater logic, but not necessarily the totality of material. Ferneyhough has also suggested, in a quote that distills many of the issues presented in this chapter to their essence:
A consequence of the increased emphasis on the unstable interface: performer/notation, the deeply artificial and fragile nature of this often naively unquestioned link, is the constant stressing of the ‘fictionality’ of the work (‘work’) as a graspable, invariant entity, as something that can be directly transmitted. That this is no longer the case has been recognized ever since indeterminacy assumed the mantle of progress; here, however, where the ‘work’ is posited at least to the degree that an attempt has been made to correlate the topologies of sound and notation, directionality in both physical and temporal dimensions, the notation (its depth of perspective) must incorporate, via the mediation of the performer (his personal ‘approach’), the destruction (secondary encoding) which it seems to be the task of most music to brush impatiently aside (Ferneyhough 1995a, 5).

Ferneyhough’s somewhat paradoxical term “destruction (secondary encoding)” lucidly condenses the issue by addressing the sometimes oppositional roles that internal and external processes play during the act of performance. Since the primary driving force in performing complexism is the internalization of the inherent complexity of a work (or, “work,” to concur with Ferneyhough’s emphasis on its incorporeality), the performer enacts complexism by physically embodying the work’s conceptual and material aporia. This situation naturally emerges from some of the topics introduced in this chapter: both a radically idiomatic approach to the instrument as well as prescriptive notation of decoupled elements foster a defamiliarized performance situation in which traditional models and standards of clarity and communication can no longer be aptly applied. Furthermore, in performance, the process of internalizing these conflicting materials is in constant negotiation with the external process of sounding them: it is a simultaneous act of destruction alongside an equally powerful impulse of generation; a “secondary encoding” of the raw materials. Ferneyhough concludes by suggesting that:

The object of music thus becomes its conditions of realization, as these are made manifest in and through the encapsulated real-time structuration of composition/rehearsal/listening. There is simply one illusion less to contend with (Ferneyhough 1995a, 5).
This dynamic, sonically enacts a balance that is constantly being struck between material demands and the performer’s reading of these materials (via notation). As the work’s contradictions are filtered through the limitations of physical sound production during the moment of performance, it is precisely these conditions of the works’ realization that are made manifest and perceived by an audience. The external—or, in plainer terms, sonic—outcome of performance is then as much a reflection of the performer’s internalized conflict of materials and values as it is one of many possible representations or outcomes of the work. It is the specific dynamics of this process, however, that I will turn to now as the topic of Chapter 3, which presents the central ideas of this thesis.
Chapter 3: Theorizing agency in complexist performance

The Text is experienced only in an activity of production.
—Roland Barthes

3.1 Introduction

In the first two chapters, I have suggested a reading of complexism that, at its core, is defined by a polyphony of materials (Mahnkopf’s “meaning-bearing levels”) typically manifested through conceptual and compositional elements such as informational superabundance, multi-perspectivity, or the richness of intra-material relationships. These characteristics also dismantle (through decoupling and defamiliarization) received traditions and conceptions of performance. Elements such as radically idiomatic instrumentalism, prescriptive notational practices, and a variety of performance practice challenges create a situation in which any attempt to fully encompass the work’s informational mass within a single performance becomes not just unachievable but also fundamentally problematized.

I contend that when these important facets of complexism are thought to mainly reflect compositional considerations, the significance of performer agency is inadequately appreciated and understood. This chapter therefore sets out to develop a relevant and multi-dimensional understanding of the role of the performer in musical complexism.

To do so, it draws on the work of two authors whose primary focus is not music: South African complexity theorist Paul Cilliers, and Italian literary theorist, semiologist, and novelist Umberto Eco. I do not claim to be an expert on either of their respective bodies of work, or that I offer the only valid adaptation to music of concepts they have developed. Moreover, I am not

juxtaposing their ideas to create a dialectical framework for thinking about musical complexism. Rather, their inclusion stems from my interest in some of their ideas as well as the desire to enrich the discourse on complexism by introducing new connections and methodologies.

My main point of departure is the suggestion by some previously-cited authors that the foundational elements of compositional complexism have shifted the relationships between the primary bodies in the communicative chain—i.e. the composer, work, performer, and audience. I will contend that the musical complexity manifested in the compositional domain is not so much a cause of these inter-relational shifts, but rather a sub-system of a broader systemic complexity that exists within and, importantly, between the primary elements of this communicative chain. The advantage of this conception is two-fold. First, it deemphasizes any sort of hierarchy that might be seen to be inherent to the communicative chain (primarily, the idea that information flows almost exclusively in one direction). Second, it allows us to examine the ways in which the constituent parts of the larger system—at both micro- and macro-levels—interface with and influence one another.

This chapter develops a detailed formulation of the communicative chain—composer, work, performer, performance, and audience—which I will call the complexist performance system. To incorporate ideas about complexity developed in other fields, I will draw on aspects of Paul Cilliers’ theory of “complex systems”: the first section of this chapter (3.2) examines some essential attributes that Cilliers ascribes to complex systems and then formulates observations

49 Both Stuart Paul Duncan (2010, 137) and Franklin Cox (2002, 76) have described this as a ‘complexification’ of the communicative chain that emerges in response to certain compositional and notational practices common among much complexist music. Furthermore, Claus-Steffen Mahnkopf’s listing of “deconstruction of the work character and performance situation” as a defining feature of complexism (Mahnkopf 2002a, 56) could also be considered a more oblique reference to this same phenomenon.
about the musical complexist performance system. In particular, I make connections between the functioning and relationship of the complexist performance system’s individual parts, and consider how the dynamics that emerge from these actions relate specifically to performer agency.

Following the consideration of the system as a whole through the work of Cilliers, I will then examine the role and functions of its constituent parts, especially in terms of the primary agents (or agencies) at work within the act of interpretation. Here I draw on some of Umberto Eco’s ideas on literary interpretation and demonstrate how they can be usefully adapted to enhance our thinking about the performance and interpretation of musical complexism. Section 3.3 will present a brief overview of Umberto Eco’s work on agency and interpretation through a set of six key terms and concepts. While the vast majority of his comments on interpretation as an aesthetic action are directed at the semiotic possibilities and implications of language and text rather than music, many of the structures proposed by his work can be adapted to describe actions or agents present in musical interpretation. Importantly, his work focuses on generative interpretive processes that engage dynamically with the material of the texts themselves and, in doing so, elevate the work from the passive role in which it is frequently cast to the level of an active agent.

Sections 3.4 and 3.5 will then present my own synthesis of Cilliers and Eco. In these sections I contend that complexism exists primarily as a set of dynamic relationships that are as much external to the agents as internal within them. And furthermore, given the decentralized nature of the complexist performance system in which traditionally-defined borders of agential power are obscured, the performer is uniquely endowed with the possibility of embodying attributes from all agents during the act of interpretation. This prominent—and in fact, necessary—dynamic comes about as a direct consequence of the decoupling and defamiliarizing processes enacted within the work by the specific material, theoretical, and performative challenges of
complexism. I will refer to this concept as *multiple agency*, and will consider it as an extension of the now prevalent idea of “multiple authorship” common in the field of performance studies.

It is useful here to briefly survey two studies in particular that exemplify the latter concept in order to provide a broader musicological/theoretical context for my forthcoming argument. Eugene Montague (2014) conceives of performer agency as occurring temporally during performance and being mediated by “physical gestures that produce material sound” (57). These physical gestures are instigated by the composed gestures of the work and are therefore endowed with discrete agential power as they, to some extent, shape a performance aside from the original authorial intent. This acknowledgment of the competing agencies at work within performance destabilizes the traditional idea of authorship and the bounds of the work-object. Given that the composed gestures contain manifold internal and external connections that cannot possibly be governed by a central author or even the central text of the work-object, the performer is therefore able to act with a quasi-authorial agency: Montague posits the performer as an arranger, placing sounds in a new context.

Similarly, Nicholas Cook (2007) is critical of the concept of authority—frequently conflated with authorship—that is built not only into traditional music-theoretical discourse, but also the theorizing of musical performance across all genres (127). He theorizes three models, the first two of which are “impossible” (or perhaps untenable) and the last “possible.” First, the hyper-Platonic model, roughly analogous to Cox’s high-modernist model, that brackets out performance; second, the “free improvisation” model, which sidelines both the author and work-

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50 Cook refers to this as the “NOCM model”: shorthand for the New Oxford Companion to Music, which, by Cook’s estimation, does a great disservice to readers by not including performers in its discussion of music: “We do not talk about music as if it were a social experience; we talk about it as if it consisted of capital assets. We categorize the music of the past in terms of works, which essentially means authoritative texts coupled with an established (or at least
concept (i.e. Cox’s “absolute self-assertion” model); and third, the “collaboration” model, in which neither composer nor performer is understood to be an “author” in the sense of having absolute authority over performance. Instead, they negotiate a collaborative authority in the space (“difference”) between a work’s representation and performance (130-132): “there is no clear line between composition and performance […] just as we traditionally understand performances in terms of the works they are performances of, so we need to understand works in terms of the performances that they emerge from” (136).

While offering a compelling and nuanced paradigm for theorizing performer agency in common practice music, multiple authorship is of limited use in reference to complexism, in particular because it tends to posit the score as an intermediary between composer and performer, rather than an active agent in performance. This distinction is paramount in complexism because of the overtly destabilizing conceptual and material foundations of the aesthetic, and the ways in which complexist scores differ from traditional ones. Instead of multiple authorship, I will instead propose that the complexist performance system involves a nexus of *multiple agencies* in performance, a decoupled and defamiliarized view of established roles and relationships of agents.

### 3.2 Paul Cilliers and the complex system

Paul Cilliers (1956-2011) was a South African philosopher and complexity researcher whose book *Complexity and Postmodernism* focuses on understanding the complex systems at work across many fields such as the sciences, technology, and economics. His only mention to date in the discussion of musical complexism—and the genesis of my interest in his work—is by accepted) provenance. […] performance as performance of works, deriving a situated experience of music from an ideal, timeless entity. Language, in short, leads to the marginalization of performance” (129).
composer Aaron Cassidy, who briefly cites Cilliers in reference to the distinction between “complexity as a theoretical issue and complexity as a musical phenomenon, and […] ‘complexism’ as an intentional artistic approach toward (re)creating complex phenomena” (Cassidy 2002, 148).

The central aspect of Cilliers’ work that I will engage with is his identification of complexity as being a dynamic system rather than a quantifiable set of characteristics: “complexity is manifested at the level of the system itself” (Cilliers 1998, 2-3) and, as such, emerges from the multiway interaction of its parts. He writes that:

In a complex system […] the interaction among constituents of the system, and the interaction between the system and its environment, are of such a nature that the system as a whole cannot be fully understood simply by analyzing its components. Moreover, these relationships are not fixed, but shift and change, often as a result of self-organisation. This can result in novel features, usually referred to in terms of emergent properties. The brain, natural language and social systems are complex (vii-ix).

The application of this idea to music is perhaps not so exceptional, given that Toop and Mahnkopf have similarly highlighted that a defining principle of musical complexism is not quantitative informational superabundance per se, but more importantly, a richness of resulting intra-material connections within a score. Furthermore, it is self-evident but still important to emphasize that human agents—e.g. composer, performer, and audience—are already also complex systems. My concern at this early stage is not so much documenting specific complex interactions within these agent- or text-systems, but rather to examine the complex interactions between them
and to configure these inter-relationships within the broader context of the complexist performance system.\textsuperscript{51}

The main aspect of Cilliers’ work that I will discuss is his examination of the interrelationships between elements in a complex system. Below, I quote all ten of his preconditions for systemic complexity, but I organize thematically rather than linearly.\textsuperscript{52} They will be interspersed with my own commentary, much of which is specific to the relationship between the performer and work within the complexist musical system. This is not to infer any sort of hierarchy, but simply that the examination of all agents within the system would be far too broad a topic for this thesis.

To begin, Cilliers specifies:

(i) Complex systems consist of a large number of elements. […] When the number [of elements in a system] becomes sufficiently large, conventional means [of understanding the system] not only become impractical, [but] also cease to assist in any understanding of the system (3).

This is a basic point that echoes much of Chapter 1, which surveyed compositional elements at some length. Within the score, for example, we can identify a large number and type of elements: categories or specific instances of physical or musical materials, micro- and macro-formal structures, or more intangible elements of the work-concept. In broadening our scope to the

\textsuperscript{51} To avoid confusion, I will restate now that complexist performance system refers here to an altered version of the communicative chain, typically understood to refer to the relationship between the primary agents—composer, work, performer, and audience—during the process of interpretation. Further differentiation between the two systems will be developed in Section 3.4. As a further point of lexical clarification, I will typically use Cilliers’ term “complex system” to refer to the agents themselves (i.e. the performer is a complex system) while “complexist performance system” will refer specifically to the broader set of inter-agential relationships in musical complexism.

\textsuperscript{52} These points were briefly cited in Cassidy 2002 (at 149) but were used as a means to comment on complexism as a strictly compositional phenomenon and not, as I propose to do now, as a means to engage with the relationship of agents within the complexist performance system.
level of the complexist performance system, however, we can observe not only the amount but also the enormous diversity of elements across the agents. In the case of the composer, performer, and audience, (each of which are complex systems in and of themselves) these tend to be much more abstract than the relatively easily-identifiable categories of compositional material present in the score. Examining the performer agent for example, we could posit several broad categories of elements: these would include not only basic technical and mechanical elements of instrumental technique, but also deeper concerns such as the historically-sedimented approaches to the instrument as object implicit in their training, personal perceptive thresholds and technical abilities in relation to the finely-graded materials present in the score, individually-constructed notions of personal responsibility and fidelity, and so on.

As other writers on musical complexism have previously indicated, however, the mere presence of a superabundant number of materials is not enough to guarantee “complexity.” As Cilliers puts it:

(ii) A large number of elements are necessary, but not sufficient. The grains of sand on a beach do not interest us as a complex system. In order to constitute a complex system, the elements have to interact, and this interaction must be dynamic. […] The interactions do not have to be physical; they can also be thought of as the transference of information (3).

(iii) The interaction is […] rich, i.e. any element in the system influences, and is influenced by, quite a few other ones (3).

These types of systemic interactions, however, require some further qualification. According to Cilliers:

(iv) The interactions are non-linear. […] Non-linearity also guarantees that small causes can have large results, and vice versa. It is a precondition for complexity (4).
The emphasis Cilliers places on *dynamic* interactive relationships within complex systems is a crucial aspect of his work: these interactions prevent complexity from being reduced to a basic source or meta-description of the system as a whole. To tie this idea to musical complexism, we can observe that a particular type of material or gesture codified in the score will have, in addition to the inherent intra-textual associations, external connections to elements found across the complexist performance system. As energy is transferred between agents during performance (especially between the work and performer), richness emerges from the multi-way interaction of elements across the domain of the system.

The criterion suggested so far are present to a greater or lesser degree in all music. What distinguishes musical complexism from other aesthetics begins to emerge in Cilliers’ eighth criterion, on the dynamic nature of a complex system:

(viii) Complex systems operate under conditions far from equilibrium. There has to be a constant flow of energy to maintain the organisation of the system and to ensure its survival. Equilibrium is another word for death (4).

The idea that equilibrium is a negative trait highlights the absolute necessity of considering all stages and agents of complexist music production and not simply the compositional aspects. Cassidy (2002, 146), for example, has pointed out that a complexist musical composition could in many ways be defined as being “merely complicated” given the traceability of the compositional process in the final score of a work. While I find this to be largely a semantic difference, it nonetheless proposes an interesting idea. Because the score might initially seem to present a degree of complicated equilibrium, the complexist dynamic demands the energy of the performer—and,
more broadly, the transference of energy between all the agencies in the complexist performance system—to ensure a dynamic disequilibrium.53

To take this idea one step further, diverse interactions within the virtual spaces between agents emerge as a crucially important aspect of complexism, in addition to the actions internal to any particular agent. To take a basic example, a complexist interaction such as a physical or musical aporia is relatively inert at the level of the work (i.e. “merely complicated”) but is played out as a complex interaction during the act of performance somewhere in the virtual action-field between the agencies of the performer and score. Crucially, both agents are engaged in a discursive transference of some form of information or energy, not to mention the other factors that come to bear on the interaction that assure its non-linearity. Given the equal importance that is therefore placed on the external interaction of agents, the borders and traditionally-inherited functions of the primary agential bodies are to a large extent dissolved (to the point of irrelevancy) within the complexist performance system. As I will describe in relation to the concept of multiple agency that I formulate in Section 3.4, deemphasizing agential borders in turn allows elements typically understood as being characteristic of one agent to be embodied by another.

To a great extent, Cilliers’ seventh criterion supports this notion as well:

(vii) Complex systems are usually open systems, i.e. they interact with their environment. As a matter of fact, it is often difficult to define the border of a complex system (4).

Of course, this can refer as much to the external bounds of the entire system as it does to the agential sub-systems; however, the salient point is that dynamic informational transference is

53 Adorno (2006) seems to suggest a similar understanding of the musical score, as “no set of performance instructions, no fixing of the imagined, but rather the notation of something objective, a notation that is necessarily fragmentary, incomplete, in need of interpretation to the point of ultimate convergence” (3).
prioritized over clearly-delineated identities. Musical examples of this aspect include some materials or gestural components whose usage can reflect previous instantiations within the work, or within other works (especially in terms of the historical uses of a particular musical material), other works in the composer’s catalogue, the performer’s repertoire, etcetera. In that these are all elements that might influence the interpretation of that particular gesture, we can observe how the internal logic of the work interacts with and is augmented by the inclusion of other complex systems, making clearly delineated borders impossible: starting with the performer, then the performance situation, then again with the audience, and so on.

The remainder of Cilliers’ points explore other facets of the systemic interactions, but are frequently self-evident in terms of their musical applications. This is largely because score-based music exists in a fairly concrete form and— as an artwork that exists in relation to and in discourse with other works, historical periods, styles, and so on—is itself positioned within other broader systems rippling ever outwards in larger and larger arcs. For example:

(v) The interactions usually have a fairly short range, i.e. information is received primarily from immediate neighbours. Long-range interaction is not impossible, but practical constraints usually force this consideration. This does not preclude wide-ranging influence — since the interaction is rich, the route from one element to any other can usually be covered in a few steps. As a result, the influence gets modulated along the way. It can be enhanced, suppressed or altered in a number of ways (4).

(vi) There are loops in the interactions. The effect of any activity can feed back onto itself, sometimes directly, sometimes after a number of intervening stages. This feedback can be positive (enhancing, stimulating) or negative (detracting, inhibiting). Both kinds are necessary (4).

Contrary to Cilliers, musical notation’s ability to cement and communicate materials, structures, and forms while encouraging a more or less repeatable performer–work interaction does
allow for the long-range interaction of parts in a system. Interactions may be very long-range indeed when a musical work is viewed as part of the still broader system of artistic or historical discourse.

Additionally, the loops that Cilliers describes in the interactions are practically guaranteed in music: while feedback may be present in the score itself, most loops will emerge as a natural function in the interaction between the work, performer, and audience. This is especially the case during the learning/rehearsal process in that the feedback loops emerging from experience and familiarity with a musical work proliferate in number and across layers of inter-connection, a topic to be developed further in Chapter 5.

In terms of the interaction of elements themselves, Cilliers writes:

(x) Each element in the system is ignorant of the behaviour of the system as a whole, it responds only to information that is available to it locally. […] If each element ‘knew’ what was happening to the system as a whole, all of the complexity would have to be present in that element. This would either entail a physical impossibility in the sense that a single element does not have the necessary capacity, or constitute a metaphysical move in the sense that ‘consciousness’ of the whole is contained in one particular unit. Complexity is the result of a rich interaction of simple elements that only respond to the limited information each of them are presented with. When we look at the behaviour of a complex system as a whole, our focus shifts from the individual element in the system to the complex structure of the system. The complexity emerges as a result of the patterns of interaction between the elements (4-5).

Of course, the multi-perspectivity of complexist music is such that richness of small-scale elements and interactions resist a reductionist understanding: the totality is not sum of its parts. Furthermore, while performers are able to conceive of and engage with a work in terms of its form and long-term musical/technical demands, the temporal nature of music is such that the complexities of a piece are destined to be experienced more or less locally.
Cilliers observes one other aspect of complex systems that will be reflected upon later, in Chapter 5:

(ix) Complex systems have a history. Not only do they evolve through time, but their past is co-responsible for their present behaviour. Any analysis of a complex system that ignores the dimension of time is incomplete, or at most a synchronic snapshot of a diachronic process. (4)

Without becoming too detailed here, this point is especially thought-provoking given how a performer’s individual history with a work will shape the dynamics of the complexist interaction. Time and work in repeated practice and performance breed familiarity; the level of confrontation implied by a complexist piece will largely diminish for the performer over time in a process that necessarily changes the dynamic exchange of information and energy in the virtual space between work and performer.

3.3 Umberto Eco: six important terms and concepts

Turning now to the work of Umberto Eco (1932-2016) and his views on agency and interpretation, I identify six terms and concepts that are highly relevant to performer agency in complexism. Below, I define them so as to expedite the inclusion of these into the musical dialogue; synthesis of these concepts (as well as Cilliers’ work) will take place in the following section (3.4).

1. Interpretation. For Eco (1990), interpretation is a constantly fluctuating process of negotiation between a text and an interpreter: “a dialectic between openness and form, initiative on the part of the interpreter and contextual pressure” (21). Eco is often skeptical of the work as a central and finalized concept, preferring to view the text as being on one hand open to manifold possibilities of interpretation that may be engaged by the initiative of the reader while
simultaneously bound by the formal and conceptual structures put into place by the author to delineate the bounds of the work. Additionally, Eco stresses the need to also consider various circumstantial issues: the context of the work (for example, details relating to the biography of author, the author’s catalogue, the work’s conception and creation including its cultural framework, etcetera) as well as the immediate context of the text including the details of the reader (social status, the time and locale of the act of reading, and so on). While such contexts and circumstances could quickly generate a vast and infinitely contingent terrain, for Eco the limits of interpretation must be clearly delineated: Eco sharply criticizes “epistemologically fanatical” interpretational models, discounting unlimited semiosis on the one hand, and the search for the author’s intended meaning on the other (Capozzi 1997, 218). Instead, he suggests that a more logical solution can be found in “a continuum of intermediate positions” between the openness of the content and the formal bounds of the text (218).

2. Intentio auctoris: the intention of the author. Eco defines intentio auctoris as a largely pre-textual concept and therefore deemphasizes its importance in the interpretive process. He stresses that the search for the definitive authorial meaning of a text is an irresponsible form of interpretation because the author—whether living or dead—cannot be fully aware of the manifold interpretations supported by their own work (Eco 1992, 72). Nonetheless, the interpreter needs to understand the contextual details relating to the author’s conception of the work, because they may help in excluding unlikely or impossible interpretations. Beyond this, however, the intentio auctoris is largely sidelined in Eco’s interpretive process in favour of greater focus on the work–reader dialectic.

3. Intentio operis: the intention of the work. By “work,” Eco means primarily a text: for example, a literary text, or in our musical case, a score. The concept of intentio operis is
particularly critical to Eco’s framework because it is specifically connected to the process of interpretation and elevates the text from a passive entity to an active agent, enabling the text to guide (or counteract/contradict) the interpreter’s methodologies. Despite its importance, Eco admits that the concept of *intentio operis* is difficult to define, because the intention of the text is not “displayed by the textual surface,” (Eco 1992, 64) but rather emerges from “what the text says by virtue of its textual coherence and of an original underlying signification system” (Eco 1990, 51).

The main role of the *intentio operis* is to posit what Eco calls a “model reader,” a theoretical individual who generates an interpretation from the ensemble of codes which constitutes the text:

To make his text communicative, the author has to assume that the ensemble of codes he relies upon is the same as that shared by his possible reader. The author has thus to foresee a model of the possible reader (hereafter Model Reader) supposedly able to deal interpretatively with the expressions in the same way as the author deals generatively with them (Eco 1979, 7).

4. *Intentio lectoris*: the intention of the reader, which Eco acknowledges to be characterized by a level of bounded free-play with the work. The *intentio lectoris* is often viewed negatively by Eco: as hinted above, Eco is particularly against interpretations of literature that attempt to validate improbable or impossible interpretations. Eco sees a historical debate between:

interpretation as discovery of (a) intention of author or (b) what [the] text says independently of author. From (b), we can ask (i) what the text says by virtue of its textual coherence or (ii) what the addressees found in it by virtue of their own systems of expectations” (Eco 1990, 50-51).

In his view, the *intentio lectoris* thrives in the dialectic between the rights of the reader and the rights of the text: “if there is something to be interpreted, the interpretation must speak of something which must be found somewhere, and in some way respected” (Eco 1990, 7). Moving
forward, I will be analogously exploring the dialectic between the efforts of the performer and the prescriptions of complexist notation.

5. Work in motion: an aspect of Eco’s concept of a so-called open work. A work in motion is an aesthetic text (Eco’s code for an artistic work that contains elements that may be interpreted) that is formally open to the possibility of manifold personal interpretations. In *The Role of the Reader*, Eco examines works that display “motion” at the formal level: Calder’s mobile sculptures, Mallarmé’s unfinished literary work *Livre*, Stockhausen’s *Klavierstück XI*, and Boulez’ *Second Piano Sonata*—all of which “offer the performer [or viewer/reader] the chance of an oriented insertion into something which always remains the world intended by the author” (Eco 1979, 62). The “insertion” in this case is the ability for a performer to reorder formal components of the compositions into either a predetermined or spontaneous order that reflects individual aesthetic choices.

6. Isotopy (-ies): a concept proposed by fellow semiotician Julian Greimas that Eco repurposes to delineate the bounds of interpretation. Broadly defined as “a complex of manifold semantic categories making possible the uniform reading of a story,” (Eco 1980, 146) isotopy is recast as an umbrella term that refers to coherence at the various textual levels of a work or, in interpretational terms, the direction taken by the interpretation of a work: “a constancy in going in a direction that a text exhibits when submitted to the rules of interpretive coherence” (153). Isotopies can be found at various levels—from a single idea to a larger conceit that governs the interpretation of a larger swath of text—and are guides encoded into a work that help to shape a consistent interpretation within its formal boundaries. I will deal less directly with isotopy than the

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54 Sometimes translated as “work in movement.”
previous five terms but include a basic definition here as it is a critically important guiding principle within Eco’s paradigm of interpretation.

3.4 Multiple agency in complexist performance

In many ways, Eco’s work is ideally suited to bridge many of the conceptual gaps between this thesis and the current scholarship in performance studies that typically focus on the music of the common practice era. Eco (1990) places a strong emphasis on understanding the interpreter-work relationship, stating that “it is not enough to study what a message says according to the code of its senders but [it] is also necessary to study what it says according to the codes of its addressees” (48).

There are two primary branches of Eco’s work that I see as being of special importance to the topic of agency in complexist music. First, the critically important role of the *intentio operis*, traditionally seen as mediating between the *intentio auctoris* and the *intentio lectoris*, but elevated in Eco’s system to the point that we are able to examine the intentions of the author (sender) and the reader (addressee) as shaped by the agency of the text (*intentio operis*).

Second, the concept of “work in motion” which, despite how Eco relates this term only to large-scale formal components of a work, I will extrapolate from and apply to smaller-scale elements such as the specific material and semantic micro-units that shape inter-agent communication. Both of these concepts will be considered as elements at work within the complexist performance system. The arguments I made in Section 3.2 in tandem with Cilliers’ work should therefore be understood as contextual borders for the present section.

In translating Eco’s ideas from literature to the acts of musical performance, we must bear in mind that whereas embodiment plays much more abstract roles in the literary context, in musical
performance agential embodiment—for example, the performer embodying a level of authorial/composerly agency during performance—is an essential contingency. It is therefore critical to redefine Eco’s three intentio with some degree of flexibility or at least give the agential bodies a non-fixed identity. For the purposes of this thesis, I propose to slightly redefine the “intention” of the three agential bodies to bring them closer in line with the definition of “agent” in the classic sense, that is, “a person who or thing which acts upon someone or something; one who or that which exerts power; the doer of an action” (OED). There are several reasons for this, the most pertinent being the undue complications that arise from attempting to directly translate Eco’s literary concepts to music. While a composer or performer will certainly have an intention in mind when composing or realizing a musical work, the issue quickly shifts towards complex psychological aspects of critical-interpretational musical intention that are not relevant to my study. (Therefore, future references to “composer,” “score/work/piece,” and “performer” should be understood to refer back to Eco’s conceptual constructs of these agents rather than idealized human agents.)

Adapting Intentio operis in particular presents a problem. In positing the intention of this agent, the non-specific meaning of music (in comparison with the written word) raises numerous philosophical considerations that are outside of the scope of this thesis. I will therefore focus on the transmission of information implied by the work’s semantic codes (and the nature of these codes), rather than hypotheses about specific mappings between materials and intention.

55 As Adorno writes, “The dignity of the musical text lies in its non-intentionality. It signifies the ideal of the sound, not its meaning. Compared to the visual phenomenon, which ‘is’, and the verbal text, which ‘signifies’, the musical text constitutes a third element” (Adorno 2001, 4).
One further issue to negotiate at this stage is that, despite its manifold possibilities of interpretation, the work remains a monolithic presence within Eco’s system—more so than I think is appropriate given the semantic non-specificity of music and also the implicit decentralization of the complexist performance system. The physical nature of the musical text is very different: unlike a book or painting which typically exists in a fully-realized and fixed state independent of a reader’s interpretation, a musical work exists more or less abstractly across a plurality of generated forms such as scores, performances, or recordings. Even though a score typically precedes a performance of the work (meaning performances are therefore often contingent on a score), this does not necessarily situate the score as a better representation of the musical work.\footnote{Works with graphic scores, such as Earle Brown’s 4 Systems, have many correct interpretations—in Eco’s sense of the term—that coexist despite the fixed nature of the score: one could argue that in this case, the interpretations themselves come represent a fixed text as the systems used to realize the graphic score can become an aural model of equal value to the composer’s original score for future interpretations. It is worth noting, however, that this is a fairly contentious idea: despite the variability of performances, Roman Ingarden (1989) still considers the score to be the definitive representation of the work even if it does not determine the totality of any performance nor capture the totality of what Eco calls \textit{intentio auctoris}.}

Eco’s basic communicative chain for textual interpretation (Figure 3.1, below) reflects the traditionally-inherited literary model in positioning the work in the centre, acted upon initially by the author, and subsequently by the interpreter (reader), who may or may not generate their own externalized interpretation.

![Figure 3.1. Eco’s interpretive chain.](image)

In this diagram—and all subsequent ones—square boxes indicate human agents and oval boxes indicate text agents; since texts can act as agents (and do in Eco’s system and thereby in my
theorizing of the complexist performance system as well), it will become important to visually
distinguish them as being products of creative acts—in this case firstly by the author, but also
subsequently by the reader who may not alter the printed text, but nonetheless absorbs it and
thereby contingently reconstitutes it in a distinctly individual way.

The double arrow between text and interpreter is a critical aspect of Eco’s theory of
interpretation (cf. Section 3.3) in that he defines this process as a negotiation between text and
interpreter agents. Implicit in this process is the text’s agency over its own interpretation through
the creation of a model reader who deals generatively with the semantic codes of the work; this is
not marked in this diagram but can be considered to be part of the informational transference
signified by the double arrow.

Importantly, the agential character of the work in Eco’s theory stands in opposition to other
conceptions of interpretation—especially traditional musical ones—in which the text is viewed as
an inert object acted upon or enacted by the performer (which would be signified by a single arrow
moving from the interpreter agent to the text agent). For example, Jean-Jacques Nattiez’s seminal
Music and Discourse: Toward a Semiology of Music outlines two basic conceptions of
performance, both of which hinge on the question of where the boundary is positioned between
the poietic (creative) and esthesic (interpretive) processes.\textsuperscript{57} Nattiez (1990) argues that either one
conceives of the work as “an entity comprised of relations that are fixed by the score” (72) in which
case interpretation is the beginning of the esthesic process; or, one believes that “the work is not
wholly ‘produced’ \textit{unless} it has been played” (72), and then each performance encompasses both

\textsuperscript{57} Of course, differences between textual and musical interpretation exist; the point here is not so much about the type
of interpretation so much as the flow of information in interpretation.
the completion of the poietic process as well as the beginning of the esthetic process. In both cases, Nattiez presupposes that the poietic flow of musical discourse moves unidirectionally towards the sonically-based musical result (i.e. a single arrow pointing in the opposite direction from what I had previously described). Regardless of the system, Nattiez views the performer’s role as being largely the same as that of an analyst, in that they work with “semiological interpretants” (72) to construct an interpretation of the score. I contend that this unidirectional flow of information flow is inaccurate in the case of complexism and will therefore use Eco’s framework with its interactive dynamic between the work and the interpreter instead.

Furthermore, in Figure 3.1, it is critical to note the one-way arrow from the author to the text: as I previously mentioned, Eco brackets out the author from their own completed work and the interpretive process. For reasons of concision and clarity, I will adopt Eco’s stance and my subsequent diagrams will follow this basic understanding. His approach is sufficient for my current purposes, although the matter could be examined at length another time.58

While Eco’s model is clear in relation to written texts, the agencies in musical performance (or indeed in any performing arts) are significantly more complex and obfuscated. This is primarily due to the role of the performer being different than that of a reader: the performer receives information from a score and translates it in performance. In this sense, they are acting with composerly agency. Figure 3.2 depicts this basic concept in common practice music by adding a second triad of agents. In that the second triad parallels the roles of the first, the two are shown in vertical alignment.

58 For example, the author and text (or composer and score) may certainly have a more reciprocal relationship during the process of composition. This is arguably a dyadic stage, although the author (or composer) may well be imagining a reader (or performer or listener) and adjusting the work accordingly. This relationship is fixed, however, once the score is finalized. This was my basic consideration in diagramming a single arrow for present purposes.
The vertical alignment of agents is a critical aspect of Figure 3.2: first, it aligns the performer with the composer to demonstrate that they are both the starting point of a chain of artistic creation. Their created texts—the score and performance, respectively—sit in the middle and are open to interpretation by another agent on the right of the diagram. This visual positioning emphasizes the dynamic of multiple authorship in performance: the performer acts with a quasi-authorial intent to create a secondary text (their performance) that exists in some relationship to the primary text. The performance contains many of the same interpretive possibilities as the score, given that they are both texts, but in different senses. The performance has its own distinct logic of *intentio operis* and can therefore be interpreted by a listener with their own interpretive agency. To further extend the diagram, we could imagine a third row beginning with the listener if they were to produce a written or spoken interpretation of the performance that was then received by another separate listener/reader agent.

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This is closest to what Stuart Paul Duncan and Frank Cox refer to as the communicative chain (cf. sections 2.3 and 2.4, respectively). While a similar dynamic exists in all performing arts, it is important to note the distinction that this graphic represents only a solo musical work: in chamber works, or in conducted larger ensembles, the “performer” is a vastly more complicated multi-agent. Two sets of connections are deliberately omitted from this diagram: first, an implicit connection between the two performer agent boxes and second, contextualizing single-arrow connections between the listener and the composer and/or score if the former is familiar with aspects of the latter two before the performance supposed by the diagram.
There are two important distinctions to make with this diagram. First, the score and performance are vertically aligned but not directly connected by any arrow. Their relationship is mediated by the performer agent during the act of performance interpretation. This mediation is a critical aspect of the system that will remain an essential consideration.

Second, the relationship between performance and listener is not a reciprocal one like the relationship between score and performer, hence the one-way arrow in the diagram: the performance is a partially-closed text that reduces the interpretational possibilities afforded to the listener agent. This is a function of the natural differences between scores and performances: whereas immeasurable interpretational possibilities are contained in scores (especially in complexism as the score often presents an idealized set of interactions between discrete musical elements), a performance is a singular and temporally-fixed interpretation representing only one reading of the score’s semiological (or interactive) possibilities. My use of an arrow pointing in this direction thereby privileges my reading of the performance as an agent, as well as indicates the more limited interpretational possibilities afforded to the listener by the performance-as-text as opposed to the score-performer dialectic.\(^6^0\)

While the alignment of agents in Figure 3.2 is useful for understanding the analogous sub-chains of creative agency for a musical work, I find it slightly unsatisfactory not only because it relates agents and texts vertically despite critical differences, but also because the agencies primarily active in interpretation are not gathered together in visual proximity. Figure 3.3, below,

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\(^6^0\) We could also envision a single arrow pointing in the other direction (i.e. from listener to performance, indicating a dynamic of active participation and listening to the performance), or a double arrow, indicating that the performance perhaps also directs its own interpretation and envisions a model reader. Ultimately, I think that my figuration most accurately represents the relationship between texts and agents, though persuasive arguments can be found to the contrary.
presents a more dynamic and nuanced instantiation of this same system, to highlight the constellation of performance agencies and their relationships.

Figure 3.3. The interpretive chain for solo (unaccompanied) musical works.

There are three critically important aspects in Figure 3.3. First, the score, performer, and performance are placed in close proximity as an important nexus of informational transfer (indicated by a lightly-dashed box around these agents). This *performance nexus* is the defining feature of the chain in that it is the most volatile and important locus of informational transference and will be a critical element moving forward.

Second, as an additional part of this figure, I have indicated Eco’s virtual model reader (now a virtual model performer) on the diagram as a product of the score in a lighter shade of grey. This is to demonstrate how the score directs its own interpretation within this nexus: a two-way connection between the performer and the virtual ‘model reader’ performer indicates this interpretive cooperation; the one-way arrow between the virtual performer and the performance indicates its effects on the final performance product.
Third, I have introduced a diagonal axis into the diagram: the human agents (composer, performer, and listener) may now be linked diagonally; and the text agents (score and performance) can likewise be associated diagonally. These diagonal axes clarify the meaning of the horizontal and vertical axes: the former showing products of a creative act, the latter showing the intended receiver of the generated text and the next important human link in the chain of agents.

Within the confines of the performance nexus there are additional contextual factors that shape the interpretive process that are not depicted in the diagram. While some of these aspects will be discussed in chapters 4 and 5 of this thesis, they must generally be bracketed out here as they are too contingent for further theorization in this context. For example, we can hypothesize elements surrounding the creation of the score (i.e. performance practice elements instigated by the composer’s biography, factors of the time and place in which the piece was conceived and composed, etcetera), its positioning within a larger aesthetic and art-historic context, as well as similar contextual elements surrounding the performer (i.e. their past experience with the piece, their preparedness for the performance, their health, etcetera), the specific performance situation, and so on.61

As I have previously stated, the particular formulation of the communicative chain depicted in Figure 3.3 is problematic in regards to complexist performance, which presents an even more contingent terrain for agential interaction and interpretation. Figure 3.4, below, therefore builds on the basic formulation of Figure 3.3 and depicts what I have been referring to throughout this chapter as the complexist performance system.

61 For a more detailed accounting of some—but not all—of these issues see: Nattiez 1990, 69-90 (especially 74-77, and the diagram at 76).
This formulation is the central focus of the chapter as well as the thesis, and will be discussed extensively in greater detail in the following paragraphs. There are four primary visual elements, however, which bear some immediate commentary; issues introduced in the following paragraphs will be elaborated later in the section.

First, the performance nexus is represented as a shaded grey area with no directional arrows between agents to indicate the high level of non-linear informational transference in complexist performance. The shading darkens towards the performance to indicate that the results of the informational discourse coalesce in that text agent, but not in such a way that it encompasses the totality of discourse within its loose agential bounds. (Or, to state this in another way, the performance text is as much a product of the system, not just of deliberate performer actions.)

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62 The difference in colour between the performance text and the other agencies within the performance nexus is only to improve the legibility of the diagram.
Figure 3.4 therefore reflects major aspects of Cilliers’ complex system in that the performance nexus acts as an action-field for the manifold non-linear and multi-way exchanges between the score, performer, and performance agencies. While the three component agencies can be counted, the subcomponents of the now borderless agencies cannot, nor can the intermediating “scripts” (a concept to be described in more detail soon). It is this decentralized aspect of the performance nexus which causes the feedback loops in Cilliers’ formulation. As a result, there are no direct 1:1 mappings between elements as their interaction is almost entirely contingent on the performance situation itself. The grey shading on the diagram represents this contingent and non-linear distribution of countless small and large connections and interactions. As part of this formulation, the model reader has disappeared as a discrete agent and becomes largely implicit in the shaded performance nexus; this critical element of interpretation continues to be important but is less directly tied between the work and interpreter agents.

Second, the three primary agents (score, performer, and performance) located in this virtual action-field are now dissolved into a network of interactions; their borders and action-limits are not as clearly delineated as in figures 3.1 through 3.3 and are merely suggestive of their previous instantiations. While complexism as a compositional phenomenon self-evidently occurs internally within the work, my formulation of the complexist performance system extends this basic dynamic to the level of the system itself and thereby includes both the performer and performance agents as well as their interactions.

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63 This idea is suggested by Cilliers’ fourth point: “The interactions are non-linear. […] Non-linearity also guarantees that small causes can have large results, and vice versa. It is a precondition for complexity” (4).
Third, between agents, I have introduced the idea of *performance scripts* as discursive mediators (depicted as *t-scripts* and *e-scripts*, the two subcategories of performance scripts that I will describe). While the function of these within the complexist performance system will be detailed in greater detail below, I will define them now as being mental maps or algorithms that the performer assembles in the process of learning and practicing a piece, and that serve as the mental and physical basis for the reiterative processes of practice and performance. Scripts are a cognitive apparatus underlying the translation and enactment of specific materials and concepts encoded in the score; they are both mental and physical, tying together these two cognitive domains, and they engage both conscious and unconscious aspects of perception, learning, and action. Since scripts are both mental and physical, both conscious and unconscious, they can only be “written” in holistic cognition, and only described in these sorts of conceptual terms.64

Lastly, the composer and listener agents are not directly linked to specific text agents as they were in previous diagrams but respectively anticipate and observe the performance nexus itself.65 Following Cassidy’s idea that a complexist score is a relatively inert “merely complicated” object (Cassidy 2002, 146), I contend that the performer and performance are the essential elements of complexism, firstly because the composer, score, and listener cannot collectively form a complex system without them. As such, the composer and listener agents are situated as outsiders to the complexist performance nexus and its implicit relationships. Figure 3.4 depicts the composer

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64 I will later also suggest the presence of scripts present in the score agent itself: these will be different in nature (in that they are more concretely related to material/conceptual elements of the work rather than being generated by the performer agent), but are fundamentally related and inexorably linked with the performance scripts that I have just defined.

65 While not discounting that the individual relationships of the composer and listener with the system are similarly complex, the composer and listener are depicted rather simply here. This is because, for the purposes of this thesis, I will need bracket out these agents. They are topics for further study.
as instigating—or at least anticipating—the complexist performance nexus in their compositional act; the arrows on the braces emerging from the composer agent refer to this particular dynamic. Similarly, given the nature of complexist performance that I will outline in this section, the arrows on the braces connected to the listener agent indicate how they experience the interaction of the system itself rather than solely the performance text.

The two major changes between figures 3.3 and 3.4 are therefore primarily with the score, performer, and performance agents themselves: first, their individual identities; and second, their interaction within the context of the system.

The particular difference that I identify between the agencies in the interpretive chain in common practice music (Fig. 3.3) and the complexist performance system (Fig. 3.4) is the latter’s distinctly decoupling and defamiliarizing formulation in regards to the agents themselves. This is in large part encoded in and activated by the particular formulation of the complexist score agent, which has been fundamentally altered by the conceptual underpinnings of complexism: prescriptive notation implicitly focusing on choreographed action as its material; interest in radically idiomatic instrumentalism; physical and musical aporia; etcetera. Given the necessarily multi-perspectival nature of these considerations, I define the complexist score-agent not as a singular entity so much as the basis for a set of implicit and explicit scripts: the score itself (as a singular text) is only one possible instantiation—perhaps the ideal one—of their interaction.66

66 As I will describe later, there is a direct causal relationship between the consideration of the score agent as a set of scripts and the idea I presented earlier of scripts as discursive mediators between agents within the complexist performance nexus. While this will be further developed in chapters 4 and 5, it is important to note here that scripts will be found at all levels of a complexist work: a performer will typically primarily engage with scripts relating to the score-as-text (i.e. through notation or other means), however, scripts will also be found at various subtextual and conceptual levels of the work as well. In all cases, my choice of the term “script” is intended to create at least a figurative link to the more commonly-understood definition of this term as being a written text of a play or film. Without belabouring the metaphor, the particular understanding of the complexist performer that I will describe below
The importance of this distinction is two-fold: first, it implies a level of decentralization, decoupling, and defamiliarization rather than a unified score and, second, it suggests a particular work-concept that is contingent on additional actions or energies to become fully-realized. Recalling Cilliers’ eighth point concerning the necessity of energy and disequilibrium to the functioning of a complex system, we can consider a complexist score to have the implicit qualities of an \textit{artefact} rather than a complete work-object. It \textit{evokes} the work rather than being the work itself: to quote Cilliers (1998), the score provides “a synchronic snapshot of a diachronic process” (4).\footnote{This is roughly analogous to the relationship between a live and recorded performance; the recording is itself an artefact that captures a snapshot of the performance event. It evokes the confrontation between work and performer but is itself incomplete on some level.}

This dynamic of agential defamiliarization is an essential contingency of the complexist performance system as it maximizes the level of informational transfer between the constituent elements of each agent. Figure 3.4 therefore also represents the performer and performance agents as collections of scripts that are similarly loosely-bound to the traditional borders of the agents. Of course, the number and material domain of these agents is largely predicated on the specific materials of the piece: I will not generalize here about what these may be, as this is the topic of Chapter 4.

We can, however, theorize several distinct types of scripts that co-exist within the complexist performance system. The most fundamental of these—as they, to a large extent, are responsible for the overall dynamics of the complexist performance system including the performer-generate performance scripts—are the scripts implicit in the score-agent. These \textit{score-}
scripts are conceptual or material elements of a musical work encoded by a composer during the act of composition. They may be found at all levels of the score: from specific usages of fingerings, embouchure or breath manipulations, to recurring material threads, the particular approach to the instrument, and outwards to larger formal constructions and work-specific conceptual conceits. Typically, the most evident of these (at least to the performer) are the scripts that engage with specific parameters of instrumental technique and deploy these as separate discursive threads.

Of course, multiple parametrically-based scripts may be apperceived in common practice music as well. In that case, however, they are typically functioning with greater cooperation and unity towards a fairly singular sonic goal. In playing a single melodic line, for example, a woodwind instrumentalist is rendering at least two scripts that are working in tandem to create the aural result. For example, one script specifies the parameter of the actions of the fingers (in that their role is mostly changing pitch) while other scripts specify other physical parameters that produce the expressive elements of the music through the closely integrated mechanisms of air support, articulation, voicing, etcetera. The other half of this equation is, of course, the enactment of these scripts: the performer acting as a sonic mediator or translator.

The critical difference with complexism is that the scripts that coexist within the conceptual bounds of a complexist work are, by nature, multi-perspectival and therefore frequently exhibit parametric conflicts (often as a direct result of the decoupling of physical and instrumental mechanisms). As such, they are inherently unstable; scripts resist singular fixed identities in favour of qualified meanings in relation to other scripts, both intra- and inter-agentially. Enacted thusly, my contention is that these scripts actively dissolve the performer agent—and, correspondingly,
their generated performance text—into similarly separate parametrically-based scripts.\textsuperscript{68} This is especially true of works understood to exemplify radically idiomatic instrumentalism as well as the notational practices described in Chapter 2, for example. (This point will receive greater consideration in the following section and chapters)

It is, of course, not merely the presence of a large number of scripts so much as their interaction during performance that is of interest. To this end, I am especially interested in a category of scripts—\textit{performance scripts} (or \textit{p-scripts})—that emerge from the inter-agential relationships. P-scripts can be largely divided into two sub-categories (see Figure 3.4, above): the \textit{translation scripts} (\textit{t-scripts}) that emerge between the score and the performer, and the \textit{enactment scripts} (\textit{e-scripts}) that emerge between the performer and their performance. Critical to note is that there are distinctions between the text-agents (i.e. the score and performance agents and their implicit scripts) and the general category of p-scripts. Although text-like, p-scripts involve physical-gestural dimensions of cognition, learning, and action. As such, they are more contingent on the performer who decodes or extracts the associated score-agent scripts that they will enact in performance (a process that will be described in more detail below). The p-scripts themselves should therefore be understood as component elements \textit{within} the performance nexus that mediate between the score-as-text and the performance-as-text. And whereas the score-as-text and performance-as-text are public objects, printed or recorded, p-scripts are private objects as likely to be managed like an individual mental or oral act than in an explicitly notated form.

\textsuperscript{68} Or perhaps \textit{systems} in the case of the performer agency given that larger elements such as fingering or breath are the combinatorial product of many smaller components rather than a singular element—though I am wary of overusing the term “system” given its many different definitions already in this thesis.
T-scripts are formed during the performer’s interaction with the score-scripts and refer to the *translation* of the score into actions on or with the instrument. This is necessarily a two-way process as the score-agent suggests (through the creation of what Eco describes as a model reader) a certain reading of its own scripts with which the performer-agent interfaces. It is important to note that t-scripts are inherently more subjective as they are created by specific performers (as opposed to the more idealized general performer I have typically been engaging with here); for example, not all of the possible score-scripts may be engaged by the performer during a single performance, and different ones will be engaged by different performers. As a general observation, however, t-scripts will tend to relate to aspects of the score that decouple physical parameters and mechanisms of performance; they are a product of the confrontation between score and performer as mediated by notation.

E-scripts refer to the actual *enacted* performative actions during interpretation and are a direct result of the relationship of the score- and performer-scripts through the negotiated t-scripts as well as the contextualizing pressure of the performance nexus. They should be understood to be constructive scripts as they emerge from a process of filtration of t-scripts through the body (or, more specifically, the physical actions) of the performer. In one sense, they are responsible for the majority of scripts encoded in the performance text-agent, though I do not intend to suggest a linear flow of information from score to performance: given the nature of the complexist performance system, there can never be a direct mapping between any p-scripts or agent-scripts. For example, some e-scripts may form independently of t-scripts—from a performer’s history or experience with other complexist works, for example—and create feedback loops that alter the performer’s relationship with the score (i.e. the t-scripts themselves).
Given the defamiliarization of the agents and their complex interactions, the act of performance—and thereby the agency of the performer within the system—is simultaneously a constructive and deconstructive process; and it is in this sense that the performer finds themselves to be multiply-situated between all three agencies. Dismantling the Platonic conception of music allows us to understand that a performer is acting with quasi-authorial agency during performance. This aspect engages the performer in an inherently constructive process: as Nattiez (1990) theorizes, the performer works with “semiological interpretants” that have been encoded in the work in generating a secondary (but not subsidiary) text that is their own interpretation.

Simultaneously, and perhaps more importantly, the performer is also embodying the logic of the work’s parametrically deconstructive processes. This is a counter-flow of information against the constructive dimension of composerly agency (embodied by the performer in the sense that they are critically engaged with t-scripts and e-scripts): the work is actively shaping the generative process of interpretation through resistance to easy comprehension. This dynamic relationship exemplifies systematic complexity: in that one of Cilliers’ conditions for a complex system is the non-linearity of interactions, the push and pull between the constructive and deconstructive processes within the performer become a focal flux in the dynamic of musical complexism.

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69 As I will make use of this constructive/deconstructive binary throughout the thesis, it is important to note that my use of “deconstructive” should be understood in a limited sense: it is intended to imply the dynamics of decoupling and defamiliarization that I have been describing in complexist performance, with no intended reference to Derridean ideas or frameworks.
3.5 The interaction of scripts in complexist performance

To analyze the nature of interactions between scripts within complexist performance, we must return to an element of Eco’s work that I had previously highlighted as important: the idea of the “work in motion” and the varying—but always present—level of indeterminacy that it suggests. Interestingly enough, Eco’s analysis of open-form musical works from the 1950s and 60s also characterizes the work in motion as being a distinct product of its time, in a similar fashion to how Mahnkopf defines the superabundance of materials (i.e. “multiperspectivity”) and their conflict (leading frequently to indeterminate aural results) as being part of the compositional praxis of second/reflexive modernist music:

In every century the way that artistic forms are structured reflects the way in which science or contemporary culture views reality. The closed, single conception in a work by a medieval artist reflected the conception of the cosmos as a hierarchy of fixed, preordained orders. […] Multivalue logics are now gaining currency, and these are quite capable of incorporating indeterminacy as a valid stepping-stone in the cognitive process. In this general intellectual atmosphere, the poetics of the open work is peculiarly relevant: it posits the work of art stripped of necessary and foreseeable conclusions, works in which the performer’s freedom functions as part of the discontinuity […] not as an element of disorientation, but as an essential stage in all […] procedures (Eco 1979, 57-58).

The work in motion is introduced in the first chapter of Eco’s 1979 book The Role of the Reader and is one of the rare occasions on which Eco examines developments in twentieth-century music and the ramifications these have on established interpretative paradigms. Eco cites four musical works that can be considered to be open on some formal or material level (that is, works whose final sonic form is to a large extent left to the performer through either pre-planning or spontaneous decision-making): Karlheinz Stockhausen’s Klavierstück XI (1956), Luciano Berio’s
*Sequenza I* for solo flute (1958), Henri Pousseur’s electronic work *Scambi* (1957), and Pierre Boulez’s *Piano Sonata No. 3* (1955-57, rev. 1963). While Eco primarily focuses on the large-scale formal issues of each work, he does, importantly, consider the material as being similarly open to a diverse set of semiotic and interpretational possibilities. These materials and forms are a divergence from common practice works, typically characterized by a well-defined arrangement or assemblage of sound units in a closed and pre-determined form. Through the four mid-twentieth-century pieces, he introduces the concept of the open work as well as the more important work in motion (that I previously defined in Section 3.3) which opens a work to the “possibility of numerous different personal interventions, but [is] not an amorphous invitation to indiscriminate participation” (Eco 1979, 15).

This section will expand—or, more literally, contract—the scope of “work in motion” to consider elements other than large-scale form: “elements in motion,” perhaps. Specifically, I will engage with the small-scale musical and physical aporia that result from multiple layered strata of physical scripts. In considering these elements of the work as being “in motion,” the sonic indeterminacy that results from these conflicts will connect directly to the idea of the performer embodying multiple agencies in performance.\(^70\)

We can use a brief example (Figure 3.5, below) to illustrate the idea of elements in motion as well as p-scripts interacting in performance.

\(^70\) To briefly reiterate an earlier point, “indeterminacy” in this context does not equate with improvisation, aleatoricism, or other compositional practices/procedures typically associated with John Cage from the 1960s onwards. Given these connotations, the term itself is rather unsatisfactory but will be maintained as it corresponds at least superficially to terminology used by Eco in his theorizing of the work in motion.
Figure 3.5. Ray Evanoff, *Quieted* for solo bass clarinet (2016).

Ray Evanoff, the composer of *Quieted*, has encoded a number of discrete physical and musical actions into his piece. These instigate some of the basic p-scripts (both t-scripts and e-scripts) negotiated by the performer during the act of interpretation: in addition to the staff-based material (itself a basis for numerous p-scripts), above the staff we observe an independent series of rhythmicized accents and articulations, and below the staff another independent series of adjustments to the vertical positioning of the embouchure (i.e. THRESHOLD or OPEN, which refer to the relative amount of jaw pressure on the aperture of the reed and mouthpiece) and adjustments to the horizontal positioning of the mouthpiece relative to the embouchure (indicated by the circled numbers).

As noted earlier, there are (at least) two different kinds of p-scripts. T-scripts emerge during the performer’s translation of prescriptive notations into mental and/or embodied representations
of the relevant physical actions. These may therefore be formulated consciously or subconsciously: habitual protocols for reading and learning new pieces, for example, will formulate t-scripts without conscious action on the part of the performer. The performer’s internal work of t-scripting will often be dominated by embodied (e.g. proprioceptive) “knowledge,” be it subconscious or (partly) conscious. Any associated mental representations may involve “cues” or other forms of awareness or intention that precipitate this embodied knowledge into action. Once the notation has been translated into physical actions, these actions are then practiced and sufficiently perfected until they can be executed in performance.

During the practice process, the performer develops e-scripts that facilitate enactment and fine-tuning of the necessary actions. The development of e-scripts may likewise be conscious and deliberate, or it may occur subconsciously through habitual practice routines. (These practice routines are another type of p-script, for example.) In short, t-scripts typically characterize the initial stage of performance preparation, and e-scripts characterize the subsequent practice and performance phases though there is no fixed boundary between t-script and e-script phases. Both t-scripts and e-scripts are generally subject to looping processes, to varying degrees depending on the different cognitive and physical factors engaged in each case.

In the performance nexus, the predominance of informational loops rather than a linear flow of information between agents (as indicated by other interpretational models I presented in Section 3.4) means that the loosely-delineated t-script and e-script phases are not chronologically sequenced: recurring transitions between the two will occur. The stages of a gradual development will often go largely unnoticed, but sometimes significant shifts may be consciously required and implemented. For example, sometimes during the practice phase the performer may discover or decide that a t-script needs reformulation, and consequentially new e-scripts will also emerge.
Furthermore, in that the conflicting t-scripts implicit in physical and musical aporia resist a singular and consistent e-script realization, they will continue to shape the interpretation and create feedback loops within the performance nexus. In general e-scripts will also evolve gradually, moving from conscious intention into muscle memory or other cognitive efficiencies. Despite the important distinctions between t-scripts and e-scripts, I will henceforth mostly refer to them generically as p-scripts, asking the reader to remember that both sub-types have their respective roles in the learning, practice, and performance stages.

Quieted offers us a concise example of how a composer can either specifically codify or anticipate these aspects of complexist performance system within their score. My reading of Quieted is that the staff-based set of p-scripts acts as a basic layer that is then defamiliarized by the individual parametrically-based p-scripts that surround the staff. The staff-based material presents a central level of the work onto which the composer has attached a variety of typical expressive elements including dynamics and alternate fingerings: taken together, these are a set of p-scripts (comprised of fingerings and various the physical mechanisms that produce expressive dynamics) that function as a singular unit. Given, however, the presence of multiple p-scripts of distinctly physical materials laid over this layer (i.e. everything that is not on the staff), the question of the primacy of the descriptively-notated line is brought into question.71

The elements surrounding the central layer are physical/instrumental mechanisms that have been largely detached from their typical usage and therefore form independent t-scripts that

71 This is not to imply a critical hierarchy of importance between these elements so much as a general comment on their function relative to one another. The staff-based material must necessarily be considered as a central layer given that it instigates all instrumental sounds: the information that surrounds the staff exclusively decouples or defamiliarizes the staff-based material through independently non-sounding elements such as embouchure pressure or positioning. (With one ‘normally-sounding’ exception: the overlaid air bursts, notated with open diamond noteheads.)
conflict with the staff-based material. For example, articulation has been separated from pitch; whereas it typically specifies the envelope of a single tone, here articulation markings are overlaid in such a way that they impinge upon the staff-based material.

Furthermore, three unusual prescriptively-notated elements are also employed as separate t-scripts. First, altered jaw pressure positions that change the relative dampening of the reed vibrations against the mouthpiece: threshold open (indicated with TRESHOLD or TRESH), full open (i.e. the minimum amount of jaw pressure before air escapes from the embouchure), as well as an oscillating bite that moves between the extreme positions of fully open and fully closed (indicated with BITE above the staff). Second, the position of the mouthpiece relative to the embouchure is notated with circled numbers below the staff which indicate a spectrum between the minimum amount of mouthpiece required to make a sound [1] to a maximum amount of mouthpiece taken in the embouchure [4]. And, third, quasi-unison singing with the notated pitch, indicated with SING below the staff.

These manipulations to the embouchure are inherently defamiliarizing to the physical mechanisms of playing the instrument (in the sense that they decouple previously unified physical mechanisms) and therefore compromise the accurate realization (in Cox’s high-modernist sense) of the other simultaneous dimensions of performance action. The typically seamless contact point between body and instrument is made into an unstable locus of physical activity: the results of taking more or less than the ideal amount of mouthpiece, for example, will cause drastic and unknown effects to the sound of the bass clarinet. The resulting indeterminacy of these actions is itself a core element of the complexist performance system and aesthetic. Crucially, the volatile relationships between these physical elements is strongly indicative of the work being a microcosm of the larger complexist performance system. The defamiliarizing play—on both a physical and
conceptual level between the more traditional staff-based material and the impingements that surround the staff—functions analogously, for example, to the way that the score-agent decouples the body of the performer through the negotiation of parametrically-based t-scripts and e-scripts. This ultimately brings us back to Figure 3.4 and the indication of the composer as being responsible for the system itself rather than just the score agent. And, similarly, the listener experiences the combined outputs of these negotiated scripts rather than a singularly-unified performance text.

Therefore, by examining a more specific physical interaction such as the detail of Quieted presented in Figure 3.6 below, we can observe the interaction between several of these physical scripts: the staff layer (pitch, duration, dynamics), two embouchure adjustment layers notated below the staff, and an articulation layer notated above the staff.72

Figure 3.6. Detail from Ray Evanoff, Quieted for solo bass clarinet (2016).

72 This articulation layer also includes a single embouchure-related script: the diamond-shaped notehead marked with a sfffz accent, which refers to the sound of a burst of pure air rushing outside of the mouthpiece.
The conflicts between these scripts generates the sonic indeterminacy inherent to the work in motion: by destabilizing the embouchure via position and tension, the typical stability of an articulation—let alone a complex cluster of highly nuanced articulations—becomes undermined to the point that the notated pitch will likely give way to any number of harmonic and/or multiphonic and/or distorted sounds that cannot be predicted by the score or encoded by the composer. This, however, is not an invitation to a quasi-improvisatory interpretation of this gesture (nor should it be understood as such by a critic or listener), but rather an open opportunity to see and hear the complex relationship between work and performer, and between a radical approach to the instrument and the sounds that emerge from stipulated actions. The indeterminacy arising in performance must be the product of the performer’s disciplined attentiveness to the conditions and constraints of these two interacting agencies. The p-scripts developed and enacted by the performer (both t-scripts and e-scripts) play important roles in ensuring this discipline, and indeed the e-scripts evolve over time as a result of this discipline. The e-scripts must meet the specific challenge of ensuring that the parametric stratification posited by the notation remains in effect during performance; the layers should not collapse into a coordinated combined action, and instead must interact quasi-indeterminately.73

73 As Ferneyhough writes in his performance introduction to Cassandra’s Dream Song for solo flute (which is thematically, but not directly linked to Evanoff’s work): “This work owes its conception to certain considerations out of the problems and possibilities inherent in the notation—realisation relationship. The choice of notation in this instance was principally dictated by a desire to define the quality of the final sound by relating it consciously to the degree of complexity present in the score. The piece as it stands is, therefore, not intended to be the plan of an ‘ideal’ performance. The notate does not represent the result required: it is the attempt to realise the written specifications in practice which is designed to produce the desired (but unnottatable sound-quality). A ‘beautiful’ cultivated performance is not to be aimed at: some of the combinations of actions specified are in any case either not literally realisable […] or else lead to complex, partly unpredictable results. Nevertheless, a valid realisation will only result from a rigorous attempt to reproduce as many of the textural details as possible: such divergencies and ‘impurities’ as then follow from the natural limitations of the instrument itself may be taken to be the intentions of the composer. No attempt should be made to conceal the difficulty of the music by resorting to compromises and inexactitudes […]
The multiple scripts of physicality generated by the work, so deeply connected to the expressivity (and, perhaps, meaning) of the piece yet only hinted at in the artefact of the score, break down the performer agent into parametrically-based p-scripts that are played out through the performer’s physical body and push back against any attempt at a singular interpretation. Although the composer has initiated an encoding—to use Eco’s term—of the use of the physical body as material, the full realization of this material must necessarily come about as a result of the interaction between work and performer; the former taking on a deconstructive form in the face of the constructive process exemplified by the performer. Given the immediacy of such a conflict, the sonic result cannot necessarily be predicted by the notation, but must be realized in real-time through the performer’s mediation of the encoded physical scripts. Of course, the dynamic of mediation is itself a complex one in that scripts are additionally inter-generating conflicts and are therefore interfering in both the translation (t-scripts) and the enactment (e-scripts). It is through this paradigm that the text is understood as directing interpretive cooperation between itself and its reader: its physical demands and semantic codes are manifested through the performer who is, in that moment, embodying all three agencies, as well as the sub-agencies of multiple scripts within the domain of each agent.

3.6 Multiple agency and the ethics of complexist performance practice

In Cox’s formulation of complexist performance practice (cf. Section 2.4), the interpretation generated by a performer who ethically embodies the work’s defamiliarizing aspects can be understood as a type of correct interpretation (or, at the very least, one that does not clearly designed to achieve a superficially more ‘polished’ result. On the contrary, the audible (and visual) degree of difficulty is to be drawn as an integral structural element into the fabric of the composition itself” (Ferneyhough 1975, i).
contradict the codes of the work). The interpretational process I have described above—the combined p-scripts processes of translating and enacting the work—is inherently one that constructs the work from its materials rather than by validating either a pre-conceived *intentio lectoris* interpretation or a (re)constructed *intentio auctoris*. As a “machine for creating possible worlds” (Eco 1992, 65), the logic of the work is also self-regulating: the isotopy of the text (cf. Section 3.3)—as found in its prescription of discrete physical actions/scripts as morphological components—delineates its own limits and interpretational possibilities. By embodying the agency of the author and work, the interpreter who interacts with a piece using the same type of generative logic as the composer can successfully actualize one of many possible readings of the subcutaneous structures and independent scripts at play within the limits of the work. To echo Cox, the mainstay of the performer agency is faith and commitment: a work of musical complexism demands from the performer an artistic discipline to develop and execute p-scripts as faithfully as possible and to embody the unforeseeable—in all its complexity.

In an interview with Richard Toop, Brian Ferneyhough (1995a) addresses the broader dynamics of these points rather excellently:

**RT:** What, for you, are the essential criteria for a good performance of your work?

**BF:** I would say the establishment of audible criteria of meaningful inexactitude. That is, from work to work, from one section of a work to another section, from one performer to another, from one performance situation to another, the level of meaningful inexactitude is one indication, one hint of the way in which a work ‘means’.

**RT:** So interpretation consists, to some extent, of different intelligent failures to reproduce a central text?

**BF:** I would say this was true, yes. Unfortunately, the situation today is that the central text has no long-term text supporting it, in which
it is embedded, and which tells us how to play it. Therefore it is our duty as composers to make the text, the visual aspect of the text and its musical structure, so self-referential in an enriching sense that the performer can find some way of plugging it into his own sensibilities—so that he is not trying simply to give a generally tasteful rendering of some set of noises, or whatever, but that these noises are, in a semantically specific sense, interrelated among themselves in such a way that the performer himself can attempt to take an attitude towards that relationship. (268-269)

“Meaningful inexactitude” relates not only to intentio in that the intention of the work is actively directing some aspect of its interpretation, but also to the idea of isotopy: a performer who works actively (and carefully) with the score- and p-scripts will develop an interpretation that is both supported and, importantly, bound by the codes of the work. Ferneyhough is effectively saying that inexactitude is itself a central aspect or carrier of meaning and that within a performance it gives a glimpse into the qualified and relative meanings of both the score and the negotiation of p-scripts.\textsuperscript{74} In performance, the audience is only able to sense a relative level of inexactitude that varies contextually from action to action but cumulatively forms some sense of the nature of the work. As I have argued, this points directly to the external interaction between performer and work within the complexist performance system; the complexity of such a situation cannot be bound by any particular agent but must necessarily emerge from the interactions of the system’s components.

3.7 Conclusion

Many divergent threads emerge from these ideas, not all of which can be followed up in this thesis. In the interest of concision, I have not engaged with the composer or listener agents in

\textsuperscript{74} This idea is another reference to Derridean diff\`erance (again, in the sense that Mahnkopf uses the term) that could be more fully engaged with at a later date.
the complexist performance system. The former is self-evident to a degree—although a question remains regarding the level of involvement the composer agent might play during performance. The latter would require the discussion to shift into the realm of music cognition: we might ask, for example, how or if the listener perceives the separate parametric scripts during performance. Additionally, on a more abstract level, work remains to be done in regards to the issue of integrating the listener-agent into the complexist performance system as an active agent.

There are, however, two central issues which I will examine in the remaining chapters of this thesis. In Chapter 4, I will first engage with the idea of scripts in relation to actual repertoire. Given that I have already outlined foundational aspects of their interactions in Section 3.5, I will instead examine different ways in which these are manifested compositionally across a range of works for solo clarinet(s). Of particular interest are scripts that deal with physical mechanisms of playing, rather than more basic material in the sense of pitch, duration, etcetera.

Second, and finally, in Chapter 5 I will engage in greater detail with Cilliers’ ninth point that deals with the idea of the history of the complexist performance system affecting its current interactions. Many of the suggestions I have made in this chapter are more or less contingent on the time and experience with the material that the performer can offer a particular piece: my intention in Chapter 5 will therefore be to examine, using my own practice as an example, how in ongoing engagement with each composition, changes in its performance nexus are manifested over time, along with changes in how the performer functions in relation to the larger complexist performance system and the shifting agency of the work.
Chapter 4: Investigating performance scripts in complexist repertoire

4.1 Introduction

I will move now to an examination of the specific musical conditions that produce multiple agencies within the performer agent. Specifically, this chapter will analyze a small cross-section of complexist clarinet repertoire in order to identify a range of performance script (p-script) types and discuss both their deployment and effect on performer agency within the complexist performance system. The two types of p-scripts—translation scripts (t-scripts) and enactment scripts (e-scripts)—are essential components in the performance nexus and both types participate in decoupling and defamiliarizing the performer’s physical actions with all aspects of the instrument and also in the generative acts of interpreting and performing the score. The further examination of p-scripts in this chapter will also intersect with broader material issues raised in Chapter 2, including radically idiomatic instrumentalism and its manifestation (or even codification) in certain prescriptive notational practices. The four composers selected for this chapter each deal with the performer and instrument in unique ways, and my goal here is to demonstrate how this plurality of approaches reconfigures—but does not fundamentally alter—the relationship of agents, texts, and p-scripts in the performance nexus during complexist performance.

The presentation of repertoire in this chapter will be roughly linear: I will begin with examples in which the physical and instrumental mechanisms have been thoroughly decoupled by the composer and notated as separate material strata with deliberate overlap and conflict. In these works, musical and physical contradictions are actively pursued, and the nature of performance is thereby irrevocably changed as the performer is confronted with divergent and multi-perspectival
materials that preclude a singular all-encompassing performance. I then consider works in which these divergent material elements are strategically redeployed within less overtly confrontational contexts either to heighten a particular physical or sonic aspect, or imagine and realize a piece-specific virtual clarinet. The order of presentation does not imply any sort of hierarchy or increasing level of sophistication among these works; rather, it helps indicate a spectrum of interests and approaches.

This chapter also highlights some of the works that led me to develop this thesis, and allows me to briefly address considerations in complexist works for solo clarinet that have not previously been discussed in any study. As noted earlier, it is not my intention to pigeonhole anyone’s work into a predetermined or reductive aesthetic category such as complexism, and in fact, these four composers emerge from a plurality of backgrounds and musical interests, and demonstrate four very divergent ways of approaching the instrument. Although this chapter represents some diverse examples of complexist works for clarinet, it does not purport to be an exhaustive survey of the repertoire. To indicate that larger context, I have compiled a selected list of complexist solo, chamber, and ensemble repertoire in Appendix A.

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75 In the interest of space, I have had to unfortunately pass over some works which also informed my topic and early work on the subject: Evan Johnson, *Supplement* for solo bass clarinet (2004) and *Ground* for solo contrabass clarinet (2010); Claus-Steffen Mahnkopf, *Die Schlangen der Medusa* for solo clarinetist (1991), *Kurtág-Cantus I* for solo clarinet in A (2005) and *Mittleres Leben I* for solo bass clarinet (2013); and Brian Ferneyhough, *Time and Motion Study I* for solo bass clarinet (1971-77).
4.2 Joan Arnau Pàmies: …es kömmt drauf an, sie zu verändern. (2015)

Joan Arnau Pàmies (b. 1988) is a Catalan composer whose works “bring the very process of artistic production to the surface of the musical discourse in order to address issues of commodification and alienation” (Pàmies 2017), an idea that emerges in dialogue with his critiques of contemporary artistic, social, and political structures. This project is played out in a diverse number of ways: es kömmt drauf an, sie zu verändern features a unique dynamic in regards to both the performer-instrument relationship and the composer-performer relationship. My analysis will emphasize how elements of this piece are situated at the intersection between work-concept, notation, and performance-situation; and by examining how the work-concept and notation affect the performance-situation, many interesting threads can be discussed together.

I commissioned es kömmt drauf an, sie zu verändern from Pàmies in 2015. The work is scored for a solo performer with four clarinets (E-flat, B-flat, A, and bass), plus general amplification “beyond the natural capabilities of the instruments,” since the composer intends for all sonic byproducts of the act of performance (i.e. breath, movement, etcetera) to be clearly audible (Pàmies 2015, 1). The score is unusual in that it is not complete in a traditional sense but is instead presented as four groupings of distinct and divergent pre-scripted materials—temporal organization and three sets of indexed material categories—that are left to the performer to recombine within a certain set of parameters.

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76 This title, beginning with an ellipsis and ending with un-italicized word and a period, is difficult to incorporate smoothly into the flow of text. Future references to the title (with the exception of figure captions) will omit all punctuation and set the entire title in italic type. (The punctuation of the title will be addressed within this section.)

77 See, for example, his four-part series on the online platform Newmusicbox (Pàmies 2016a, 2016b, 2016c, 2016d).
The form of the piece in performance therefore emerges from a unique type of composer-performer collaboration, and we will thus observe a uniquely heightened level of p-scripting by the performer. The title of the piece alludes to this situation and thereby provides an excellent inroad into the work concept. The titular phrase “es kömmt drauf an, sie zu verändern” is taken from the eleventh of Karl Marx’s *Theses on Feuerbach* (1845): “Philosophers have hitherto only *interpreted* the world in various ways; *the point is to change it*” (Pàmies 2015, i [his emphases]).

This dialectic between interpretation and change-action is central to the piece. The work is designed as a decentralized collaboration between composer and performer, in which the composer has encoded the materials and the processes, but the performer shapes the work by evaluating, selecting, and finally “distributing” them during performance.\(^78\) In short, the performer both interprets the material, and then performs change-action. As Pàmies (2015) writes, “the non-linear nature of the score obliges the performer to distribute the materials in specific ways that transcend the traditional role of the composer” (*ii*); the name of the performer is therefore credited next to the composer on the concert program to reflect this aspect of the work. Furthermore, it is also intended that the performer memorize their distribution “so as to internalize a performance practice, as opposed to learning and interpreting a score only” (*ii*). The materials of the piece are therefore to a large extent in the hands of the performer themselves; this necessarily changes their agential identity during performance. In this sense, the performer enacts the dialectic identified by the title of the work which suggests how the conditions of (artistic) production have been radically redesigned.

\(^78\) Henceforth, I will refer to the performer’s constructed score as a “distribution” rather than the more common “realization” to reflect Pàmies’ word choice.
A performable score of the piece therefore does not exist until the performer develops their own distribution during the learning process. This dynamic adds an interesting element to the complexist performance system in that the interaction of p-scripts during the initial rehearsals of the piece are effectively directed towards the creation of the distribution, a secondary score text-agent. In that it is commensurate to the original score, it then also acts as an additional agent within the performance nexus. We can therefore hypothesize two sets of distinct but inter-related p-scripts during performance (i.e. two sets of t-scripts and e-scripts): those relating to the original score and those relating to the distribution. This foundational idea will be explored in greater detail after a general survey of the score, below.

The overall organization of the piece and the temporal divisions of its sub-sections appear on the first page of the printed score materials. As shown in Figure 4.1, the entire work fits into a single bar of 9/8 at the tempo of three eighth notes per minute; the composer also gives each of the rhythmic impulses a duration in seconds in order to facilitate the performance of these extremely slow temporal articulations. Each impulse involves a switch of instrument and material, rather than changes of pitch or articulation, and this adds an unusual physicality to the work. This is especially true of the instrumental switches themselves, which are deliberately awkward and abrupt, forcing the performer to incorporate a physical demand that frequently works against their ability to actualize the material in real-time.
Figure 4.1. Temporal divisions and instrument switching in ...es kämmt drauf an, sie zu verändern
Pàmies specifies two types of switches: immediate and gradual. In immediate switches, physical choreography and positioning are of utmost importance as instruments may need to be balanced or held in unusual ways to accommodate the rapid switch. During gradual switches, the clarinetist is required to imitate with their voice the instrumental sounds they had previously been performing in order to maintain a vestige of sonic continuity. In either case, the time required for the instrument switch is \textit{not} added to the times given to each temporal division within the score: the rhythmic flow of the piece is meant to progress absolutely monolithically, forcing the clarinetist to work their switches into the sonic material as best they can.

Given these fairly stringent and unusual requirements in the basic temporal organization of the piece, the physical choreography of switching instruments (with all its associated actions) must be understood and negotiated as a distinct type of p-script within the work. This becomes especially salient as the piece progresses and the temporal divisions accelerate: switching instruments within 4.37 seconds while still actualizing complex materials creates an unusual dynamic between the performer agent and the performance text.

Following the temporal organization page, the remainder of Pàmies’ score reflects three distinct material categories: fingerings, embouchure, and ranges. The composer presents these as ordered indexes: 12 per page, labelled A-L. As I have previously mentioned, the performer is tasked with combining these according to a specific set of parameters, although it should be noted that their decision-making is expected to be informed by a period of experimentation with the materials rather than an extemporaneous or improvisational approach.

Each of these material categories invokes a distinct physical type of p-script and, importantly, divergent approaches towards the performer/instrument construct with no regard for
commonality across the work. Furthermore, given that each of these materially-based p-scripts in fact involves multiple actions on the part of the performer, we may consider them already to be complex systems that embody internally contradictory p-scripts.\(^7\) Their implicit contradictions at the local level (i.e. within each of the 12 indexed constructs per material type) will therefore spiral outwards and compound as the three material categories are combined in rehearsal and performance.

Figure 4.2, below, provides examples of the three material types in the piece (a-c), which will each be described in greater detail below.

Figure 4.2 a-c. Examples of (a.) embouchure/breath, (b.) fingering, and (c.) range materials in …es kömmt drauf an, sie zu verändern.

First, the embouchure/breath system: a material category that embodies several clearly distinct p-scripts within each of the indexed diagrams. The first of these, Figure 4.2a (left), is the positioning of the mouth relative to the mouthpiece. The diagram identifies four distinct embouchure placements notated with Roman numerals I-IV that indicate the ordering of these

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\(^7\) This point will become more clear as I describe each material type but, in brief, the material categories themselves often prescribe multiple conflicting actions within a single typically-coupled system: i.e. what Pàmies specifies as “embouchure” in fact consists of horizontal embouchure position, vertical jaw pressure, and relative air pressure.
positions during the performance of this material. These positions are often unusual, involving extremely acute diagonal angles on the reed, or an extreme amount of mouthpiece taken in the mouth (in either direction). These positions, however, refer only to the physical placement of the lips on the mouthpiece, and the performer must generate a series of other actions with the remaining components of the embouchure/air mechanism.

A second p-script type within Figure 4.2a corresponds to the shading shown for each embouchure placement category. The shading reflects the relative amount of vertical jaw pressure against the reed: black refers to a level of pressure that nearly closes off the aperture between mouthpiece and reed, whereas white refers to the near absence of pressure aside from the basic formation of an embouchure around the mouthpiece, with either fixed or shifting gradients of pressure in between these polarized states.

A third p-script type in Figure 4.2a is the specification—by means of a number with a percentage sign—of the relative amount of air pressure that is to be used during that particular placement of the embouchure. These may be conceived of as roughly corresponding to traditional dynamics, however, the actual sonic outcome will not necessarily translate directly to any of the common indications because of the unorthodox embouchure placements and jaw pressures. Breaths, if felt to be physically needed by the clarinetist, are indicated with commas and are meant to be taken after the position that encompasses the comma notation.

The score involves 12 different embouchure diagrams similar to Figure 4.2a. The individual p-script elements grouped within each diagram can be also highly contradictory to the

80 This is an internally-sensed dynamic as opposed to an externally-perceived one, in many ways analogous to Lachenmann’s placement of dynamic markings in quotation marks (i.e. "ff") to indicate the intensity of a gesture rather than the resultant sound.
point that we may understand the larger category as being itself a complex system. Furthermore, as with the switching of instruments, time can also be a factor in the challenge implied by the embouchure p-script: when applied to a specific temporal division, the performer may be required to move extremely quickly between the placements of the embouchure to the point that no physically fixed position on the mouthpiece may actually occur.

Pàmies’ second material category represents both fixed and changing fingering positions (see Figure 4.2b [centre], above). For each iteration of the material, the multi-layered diagrams indicate a ‘base’ fingering—a set of keys/rings that are meant to remain fully depressed—as well as a light grey shading of some region of the diagram that indicates additional keys, rings, or open holes to be activated in some fashion. The shape of the shaded grey area indicates the relative amount of usage of these keys: greater coverage by the shape means a more frequent usage by the instrumentalist regardless of the function of that key in altering pitch/timbre (keeping in mind that the sound of the key clicks will be picked by the amplification). Finally, a number above the fingering diagram refers to the relative speed of the grey-shaded keys being depressed: 1 being relatively few “key articulations,” and 3 being the maximum number possible. In Figure 4.2b, for example, we see the indication “F-3” which indicates that there should be the maximum number of grey-shaded key articulations possible within the given time frame (F refers to the number of the diagram within the index).

What is particularly interesting about these fingering diagrams is that they are extremely contingent on numerous other factors and can shift between hindering and assisting the clarinetist in accurately performing the other material categories. For example, my experience with the particular fingering diagram in Figure 4.2b is that it typically yields very little pitch change and can become extremely cumbersome when deployed in combination with more extreme or
demanding range materials. Beyond the basic performance considerations, this indicates a high level of shifting interplay between the material/p-script categories as well as a highly contingent performance nexus.

In creating a distribution for performance, the fingering and embouchure materials are the first to be combined. One unique combination—remaining unchanged throughout the piece—is assigned to each of the instruments except the bass clarinet, whose role will be discussed shortly. Because the fingering and embouchure/breath materials will tend to produce a fairly limited or predictable range of sounds despite their internal conflicts, Pàmies introduces a series of unique range diagrams (Figure 4.2c, right). One of these is assigned to each temporal division, with the provision that they may not be duplicated on the specific instrument within the distribution (i.e. should Range A be associated with the first temporal division [E-flat clarinet], it may not be used again with any subsequent use of the E-flat clarinet, but may be associated once each with the B-flat or A clarinet). The range diagrams are read from left to right to span the duration of the section, with the vertical axis referring to the relative register of pitched instrumental sounds. As with the embouchure diagrams, the intensity of the shading (from white to black) refers to the overall prominence of that particular pitch-range during the performance of that material.

One particularly interesting aspect of these range materials is that they very often require the clarinetist to establish an additional level of p-scripts beyond the ones prompted by the fingering and embouchure diagrams. For example, if taken out of a contextualizing relationship with the other parameters, the sounds suggested by any of the range diagrams would typically be realized through a particular combination—or several—of fingers, embouchure, and breath. For example, the extreme high register of the instrument has a set of physical processes distinct from other registers that must be set in place in order for it to sound successfully. Within the context of
performing *es kömmt drauf an, sie zu verändern*, however, these same mechanisms—especially those of the jaw and breath pressure—may be deployed in what is a distinctly contradictory manner to the physical requirements of a range diagram, thereby requiring the performer to discover unusual balances and paths between these opposing parameters within performance.

Finally, the material associated with the bass clarinet exists externally to this logic: as can be seen in diagram of temporal divisions (Figure 4.1, above), both of its appearances fall under a square fermata. Directly below these indications are two conventionally-notated passages (Figure 4.3, below) that distill and reflect the logic of the temporal organization of the work into a singular musical phrase. The pitch materials of these passages are roughly based on the transposition of the soprano clarinets (cf. Figure 4.1, above), while the appearances of the bass clarinet (in the temporal outline) appear as rests.
Figure 4.3. Second bass clarinet passage in …es kömmt drauf an, sie zu verändern.
Ultimately, the quasi-compositional process of creating a distribution engages both t-scripts and e-scripts analogously to the performance of a complexist work. T-scripts are clearly involved in the aspect of preparation in that the performer explores and develops specific connections with the materials to the point that they understand their individual natures and potentialities. E-scripts developed from these actions are then cemented during the quasi-compositional act of creating a distribution, although t-scripts are still present within this process. The distribution emerging from this process becomes a secondary score representing an initial phase of t-script and e-script interaction. Importantly, the distribution does not replace the original score in the performance nexus, but rather acts in tandem as elements of Pàmies’ codified score will continue to shape the interaction of agents within the nexus. Figure 4.4 (below) provides a sample of my own distribution to demonstrate how all these materials and processes may be formulated for performance.
The multiple layers of parametrically decoupled p-scripts that I have described make es kömmt drauf an, sie zu verändern among the best examples of what I will refer to as counter-scripted complexist music. What I mean by this term (with a deliberate analogy to counterpoint) is that the p-scripts connected to specific musical materials are not only conceptually and notationally separate but also inherently multi-perspectival and divergent in function. Pâmies’ indexed fingering, embouchure/breath, and range diagrams, for example, all point to distinct

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81 A video of this performance can be seen at https://www.youtube.com/watch?v=b6PTI-eIH3w (accessed September 26, 2018).

82 This is sometimes described as “stratified” complexist music (in the New Music and Aesthetics in the 21st Century series, for example). I will prefer the use of “counter-scripted” so as to have better flow with the terminology I introduced and developed in Chapter 3.
physical actions that, insofar as they are not considered as a cohesive and constructive whole during the compositional process, necessarily foster an environment of conflict—what Mahnkopf describes as musical and physical aporia—during the act of performance.

A further distinction can then be made in reference to specific p-script interactions: counter-scripted materials may at different points of a work be coupled (i.e. working in tandem with one another) or decoupled (i.e. working independently and even against one another). In this sense, the terms coupled and decoupled can describe actions at several levels: they may relate to larger systems or groups of scripts set against one another, or similar interactions between individual physical parameters. For example, I label Pàmies’ material indexes as decoupled p-scripts because they are deliberately separated in both notation and performance. Within these larger decoupled material categories, however, are coupled p-scripts implicitly working in tandem, despite whatever conflicts might emerge between them: specific mouthpiece position and jaw/air pressure, for example. During the two appearances of the bass clarinet, however, all physical parameters are coupled.

Within es kómmt drauf an, sie zu verändern, Pàmies has coded a large body of possible p-scripts, rules governing their basic interactions, and a set of possibilities through which the form, function, and general dynamic of the work is constructed by the performer. This particular work-concept necessarily shifts the roles of the agents within the complexist performance system and the performance nexus: by creating their own distribution, the performer assumes an even greater degree of composerly agency in that they are also directly associated with aspects of the pre-textual intentio auctoris. Importantly, the additional score-agent creates a secondary but equal set of p-scripts that function in tandem with those generated by the original score-agent. Given the exceptional nature of this particular work-concept, I have provided an additional formulation of
the complexist performance system (Figure 4.5, below), to demonstrate how the performance nexus is enriched with the introduction of further texts and agents.

Figure 4.5. The alternate complexist performance system in …es kömmt drauf an, sie zu verändern.

In Figure 4.5 (adapted from Figure 3.5), we can see the performer effectively split into two agents—the distributor and the performer—in response to the two discrete actions for which they are responsible. There are two possible placements for this agent in the diagram: given how the distribution is planned rather than improvised, we could situate them outside the nexus directly under the composer agent. This placement would also reflect the idea that they have anticipated the complexist performance system within the act of distribution. However, I have decided to place them within the performance nexus: despite how the performer-distributor is not directly active as an agent during the performance of the work (at least in the same way that the performer is), critical traces of their decision-making process will continue shape the nexus during performance.
Figure 4.5 also posits three text-agents present in the nexus: the score, the distribution, and the performance. Given the additional text agent (the Distribution) and the bifurcated performer agents, t-scripts and e-scripts are formulated during both distribution and performance phases. The p-scripts developed during the distribution phase would necessarily be more calcified than those in the performer stage, given that their artistic product is a fixed text (the Distribution) rather than the “synchronic snapshot” of performance. However, the distribution scripts remain as important sources of information that continue to communicate in some fashion with scripts during the performance phase. Specifically, the distribution phase will largely focus on t-scripts while beginning to develop some preliminary (and eventually codified) e-scripts; the performer phase focuses primarily on e-scripts (but may still involve some additional t-scripts or adjustments to the distribution t-scripts). Communication and flux between the two stages is especially strong in regards to the t-scripts in both stages since the same (bifurcated) agent is responsible for the distribution text as well as the performance text: a number of highly volatile feedback loops will therefore emerge between these agents during performance.

We might also posit differences between the types of t-scripts to reflect the different stages, actions, and approaches of the performer agent during their experience with this piece. For example, the t-scripts between score and distributor are less confrontational in that this interaction is predicated on experimentation and a certain level of rational decision-making (we might call them distribution scripts (d-scripts) to indicate this difference). The t-scripts between distribution and performer are therefore somewhat closer to the e-scripts that I have previously defined in that

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83 As with Figure 3.5, the colour difference between agents within the performance nexus is only to improve the legibility of the diagram.
the performer is not so much translating the elements of the score (though this dynamic is present on some level) as enacting the consequences of the decisions made during their act of distribution. Regardless, the larger point remains that the enactment of this particular aspect of Pàmies’ work—concept is highly defamiliarizing to the functioning of the system itself and undermines many of its basic functions through a number of newly-formed feedback loops.

Another final point to note—especially given the forthcoming discussion relating to the history of complexist performance systems in Chapter 5—is how the distribution functions both as a product of a creative act as well as a historical artefact that represents a certain stage in the interaction between performer and score. Should the performer create alternate distributions (which is strongly encouraged by the composer), all historical distributions would continue to exist within the performance nexus to some degree (though perhaps with a faded level of influence) as distinct historical snapshots of an interaction between performer and score, thereby further complexifying the performance of this piece.

4.3 Aaron Cassidy

Aaron Cassidy (b. 1976) is an American composer and conductor who currently resides in England, teaching at the University of Huddersfield. Many of his works focus on the decoupling of physical performance actions and the use of choreography and mechanism as morphological determinants.

Cassidy’s scores have traversed a number of different notational styles in an effort to create more direct links between instrumental mechanism, physicality, and the exploration of unexpected and unpredictable sonic outcomes. These approaches have included tablature notation for stringed and wind instruments and, more recently, the use of colour and graphical elements to map aspects
of the performer, the instrument, and their relationship onto unique notational planes. The two works I survey here are somewhat older works in Cassidy’s catalogue (1999 and 2009, respectively), but reflect interesting approaches to stratification of the instrument and performer mechanisms.  

4.3.1 *Metallic Dust* (1999)

*Metallic Dust* for solo amplified bass clarinet was composed in 1999 and is among the first fully counter-scripted pieces for clarinet. It features the decoupled presentation of two primary p-scripts—the physical actions of the mouth and fingers—in a similar vein to my earlier example of Berio’s *Gesti* (cf. Section 2.3). Figure 4.6, below, depicts this interplay.

![Figure 4.6. Metallic Dust, mm. 62-64: decoupled and coupled staff-based scripts.](image)

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84 Cassidy’s most recent work for solo clarinet, *The wreck of former boundaries* (2016), will need to be examined at a later date as its introduces several other major concerns are ultimately outside the bounds of this thesis.

85 The amplification component of the piece, like *es kömmt drauf an, sie zu verändern*, is intended to bring all the byproducts of performance up to an equal level with the sonic output of the instrument itself. Cassidy (1999) writes: “amplification levels should be set quite a bit higher than is normally thought to be acceptable; the desired effect is to create an intense, almost oppressive sound, putting the instrument under an “aural microscope” of sorts” (*ii*).
Within these fairly broad categories, we can observe that each staff conveys the information of several kinds of p-scripts: the upper staff shows actions of the mouth and encompasses the coupled actions of volume, breath effect, and embouchure, while the lower staff expresses all the systems related to the actions of the fingers to realize pitch. Aside from seven brief instances of coupling, however, the two staves remain consistently decoupled throughout the piece. In Figure 4.6, we see that the first and last measures of the example are decoupled, while the vertical lines between the two staves at letter K represent the temporary coupling of both systems.

The actions of the embouchure and breath are notated as the upper of the two staves on a single line. Through a series of different noteheads as well as their placement relative to the line, Cassidy specifies a number of p-script categories within this larger system. Elements placed on the line typically refer to conventionally tongued attacks and the associated flow of air (including qualities between full tone and air sound), while attacks notated above and below the line refer to actions of the diaphragm (typically smorzato) and attacks created at the back of the mouth, respectively.86

Occasions will arise in which air flows through the instrument while no finger action is indicated (see, for example, the first measure of Figure 4.6, above). These are to be realized faithfully as byproducts of the process of decoupling and Cassidy intends for air to continually flow through the instrument as specified.

86 The latter of these is a very unusual performance technique with a high degree of inherent instability: the frequent recurrence of an intense “K” attack at the back of the mouth (the x-shaped notehead below the staff in the last measure in Figure 4.6, above) leads to wildly divergent sonic results depending on their context.
The p-scripts indicating the actions of the fingers are notated fairly conventionally on the lower staff. It is important to note a certain implicit hierarchy between the two primary kinds of p-scripts: the finger staff is a somewhat subsidiary parameter in the sense that its role is largely in supplying a basic flow of information or context to the embouchure and breath staff, from which much of the sonic drama will emerge. This is in large part due to the fact that, given the level of decoupling, the finger staff provides very little traditionally-understood acoustical information to a listener of the work: wildly unpredictable sonic byproducts including materials that are in transit will intentionally emerge and no effort is made on the part of the composer to hypothesize or concretize these in the score. Regardless, we can theorize that the performer might develop or extract certain p-scripts that guide their execution of the finger staff and contribute to the informational exchange of the performance nexus regardless of whether or not these are explicitly notated by Cassidy in the score.

Cassidy (2002) describes *Metallic Dust* as “single instrument polyphony” whose central concern is to “create both a conceptual and physical polyphony dealing not exclusively with empirical sounding results but instead with the processes of performance on the instrument” (150). The resultant apparent or even illusory monophony of the piece (even including multiphonics, whose presence in this case should be conceived of sonically rather than linearly or harmonically) is a result of polyphony between the two broad categories of physical actions. This dynamic relates very closely to the differentiation between the actions of the t-script and e-script categories within the performance nexus. For example, we can conceive of the actions of the mouth and fingers staves (even when broken down into p-scripts) as representing two primary sets of t-scripts that, in the constant feedback/negotiation process that occurs within the performer agent, generate a highly contingent set of e-scripts.
The rhythmic language of the piece supports this reading in that the larger p-script categories are nearly always in some type of complex and offset rhythmic relationship with one another. Typically, at least one of the two layers is written with a complex tuplet that is usually close enough to the regular metric pulsation of the other layer (i.e. 9:8, 26:24, 12:11, or, as in Figure 4.6 above, 11:9 set against 10:9) that the two layers are only very slightly out of sync. Tuplets never extend over a barline, creating a clear and regular sense of demarcation, separation, and orientation. This was a deliberate choice by Cassidy, who suggests that it:

creates more rhythmical variety in the final sounding result. Were all the individual motivic components made of highly disjointed, fragmented and otherwise unidentifiable units, the rhythmic energies of the work would be largely dissolved—the rhythmic surface would instead become rather gray and unfocused (Cassidy 2002, 152).

Of course, the two layers of divergent p-scripts could be reduced to a single line and notated relatively conventionally, creating a more 1:1 relationship between t-scripts and e-scripts during performance.⁸⁷ Such a reduction would, however, be in contradiction to Metallic Dust’s underlying work-concept which prioritizes not only the decoupling of parametrized physical t-scripts but also the translation and enactment of these scripts during performance. In maintaining a level of opposition between the larger categories of p-scripts, Cassidy is able to deploy diverse states of physical and musical (de)coupling throughout the piece, from the fully-recoupled (i.e. a 1:1 ratio between t-scripts and e-scripts) outwards to the most fractured examples of decoupling, where the t-scripts and e-scripts are at their most contingent and conflicted. As a result, the contextual pressures of the performance nexus are in a constant state of flux, creating an ever-shifting

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⁸⁷ In Cassidy 2002 at 152-153, the composer offers a “reduced” reading of a single measure along these lines.
framework that does not allow the performer agent to assume a singular form, or even, at the very least, an understood and consistent level of defamiliarization throughout the performance.

4.3.2  *Being itself a catastrophe, the diagram must not create a catastrophe (or, Third Study for Figures at the Base of a Crucifixion) (2007-09)*

*Being itself a catastrophe, the diagram must not create a catastrophe (or, Third Study for Figures at the Base of a Crucifixion)* for oboe (doubling musette and English horn) and B-flat clarinet (doubling E-flat and bass clarinets) was composed between 2007 and 2009 for Peter Veale and Richard Haynes of the ELISION Ensemble. Here I will consider only the clarinet part which, in many ways, extends *Metallic Dust*’s approach to physicality and notation. Given the many resultant similarities in the complexist performance system and performance nexus between the two works, *Being itself a catastrophe* will only be briefly surveyed here as a way of demonstrating an even greater level of p-counter-scripting.

Like *Metallic Dust*, *Being itself a catastrophe* separates the two primary modes of playing—mouth and fingers—onto two separate staves. In distinction from *Metallic Dust*, however, the individual p-scripts of these groups remain relatively independent throughout the piece, divided into a number of highly-refined physical motions that are presented in a tablature notation.

In addition to the complement of distinct mouth actions in *Metallic Dust*, Cassidy has incorporated two additional parameters that specify shifts between the mouth and the clarinet mouthpiece/reed setup. First, the relative amount of pressure applied against the aperture of the mouthpiece is specified between the extremes of a slack-and-open jaw and one that is pinched.

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88 The piece’s extremely long title will henceforth be shortened to *Being itself a catastrophe*. 
extremely tightly. Second, Cassidy specifies the positioning of the mouthpiece/reed within the mouth between a minimum and maximum possible amount of reed present in the embouchure. Both of these p-scripts intentionally create an even higher degree of timbral and gestural distortion than was present in Metallic Dust, where the embouchure itself remained relatively stable despite its internal motions and dynamics.

The approach to finger scripts has been greatly complexified in the intervening decade after Metallic Dust. No longer coupled in a mostly conventional manner, the finger action in Being itself a catastrophe takes a highly defamiliarizing approach to the mechanism of the player’s finger actions relative to the keys themselves. Cassidy uses tablature notation to specify and rhythmicize the action of individual fingers on the instrument; unusually, these finger actions are not mapped on to specific keys, so an action involving the clarinetist’s right pinky, for example, could activate as many as six different keys during the bass clarinet components of the piece (and four with the B-flat and E-flat clarinets). Furthermore, this p-script decouples and defamiliarizes the action of the fingers in relation to the keys: through three separate noteheads, Cassidy specifies the degree of physical distance from the standard initial position of each finger. Cassidy writes:

The goal of this notation is a much more ‘magnified’ view of the available finger/key options which will, in some ways, ask the performers to separate the keys from their normal/traditional fingering. The piece attempts to develop a much more physically distorted, mutated approach to the instrument, one that removes the connection between fingers and their normal roles. […] There is considerable flexibility, but the critical issue is that finger/key decisions are driven by the relative degrees of ‘distortion’ of finger positions. Physical shifts should be clearly visual, ‘mappable’, and traceable changes in the relative ease/comfort/location of the fingers (Cassidy 2009, i).

These fingering shifts can be accomplished in a number of different ways depending on the amount of physical distance specified by the score: from small shifts, through half-holed
fingerings, depressing nearby keys typically associated with other fingers, to the extreme of stretching the notated finger to a “clearly awkward/unconventional position (almost always to a key typically played by another finger)” (Cassidy 2009, i). Despite this unusual physical element, the actions of the fingers are composed rather expressively, making use of trills/tremolos, mordents, finger staccatissimo, sharp key clicks, and finger glissandi between various states of key activation.

Needless to say, this extreme level of physical decoupling leads to highly complex and unstable musical textures. Figure 4.7, below, gives a brief example of some of the clarinet material from the piece to demonstrate how Metallic Dust’s p-scripts remain visually intact on the score, to an extent, but function with a much higher level of decoupling within each category. This is especially noticeable within the nine-line finger staff at the bottom of the diagram (referring to the actions of every finger and thumb on the left hand and the four fingers on the right hand), given the many streams of p-script information that occur simultaneously but not synchronistically.89

89 It is worth noting that at no point in Being itself a catastrophe do all the p-scripts couple together as they did occasionally in Metallic Dust.
Figure 4.7. *Being itself a catastrophe*, mm. 63-66 (E-flat clarinet material).
Figure 4.7 shows the high-level of complexity and nuance present in each individual p-script within the broader systems of mouth and fingers. We observe the following scripts working in a greater or lesser degree of decoupling/coupling: (1) adjustment of the positioning of the mouthpiece relative to the embouchure, (2) drastic shifts in embouchure pressure coupled with jaw vibrato (horizontal/diagonal lines within a delineated space of relative pressures), (3) fluttersongue (notated conventionally with three diagonal slashes on the stem), (4) pulsed vibrato, (5) growl (throat flutter, notated with a “z” overlaid over the stem), (6) dynamic changes using conventional symbols, and (7) nine streams of discrete finger actions—beginning with the left thumb on top and ending with the right pinky at the bottom—across the spectrum of possible relationships between keys and fingers.90 (The rhythms both directly above and below the finger staff indicate the composite rhythms executed by each hand.)

Both Metallic Dust and Being itself a catastrophe are examples of the fairly high level of confrontation that is possible between the score and performer agencies. In both cases, this dynamic is mediated by the numerous and specific p-script categories that have been codified into the scores themselves. These scripts typically relate to the relationship between the performer and their instrument either very precisely (i.e. the action of a single finger) or more broadly (i.e. the actions of several/all fingers coupled into a single script). In comparison to my earlier example of es kömmt drauf an, sie zu verändern (cf. Section 4.2), Cassidy’s scores are more centralized work-objects: given that specific inter-script interactions and degrees of decoupling and defamiliarizing have been codified, the roles and limits of the agencies and scripts within the performance nexus

90 Interestingly, this never expands to ten streams of finger p-scripts to take into account the use of the right thumb with the bass clarinet.
can be understood as being fairly clearly delineated. Both Metallic Dust and Being itself a catastrophe probe the liminality of the performer’s body and, in doing so, the resultant sonic outcome from these interactions very nearly transcends the paradigm that I proposed in Chapter 3.


The two remaining analyses in this chapter are closely related to my earlier discussion of radically idiomatic instrumentalism (cf. Section 2.2) in that they display a compositional interest in re-synthesizing strands of physical p-scripts into a more singular and cohesive whole. Given this focus, these works will tend to be more conventionally organized and, correspondingly, notated with a fairly high level of identifiable parametric coupling. However, it is important to note that this general approach is not reflective of a traditional use of the instrument: as I described in Section 2.2, radically idiomatic instrumentalism is often as much focused on decoupling and defamiliarizing specific physical/instrumental mechanisms as it is about generative instrument building on a meta-level. In this sense, these pieces are additional examples that support the idea of the “virtual” in complexism: they have both been composed for highly contingent instruments that reflect the “sonic-structural shape of the envisioned composition” (Barrett 2017, 17) rather than the instrument as either a historically-sedimented or purely physical object. Given this focus, my analyses will examine how composers resynthesize various parametrical and material strands during the compositional process and deploy unique physical and instrumental/mechanical states as morphological material. I will focus less on identifying physical/mechanical p-scripts—as I did with Pàmies and Cassidy—in favour of exploring specific intersections between the surface level p-scripts and those generated by aspects of the underlying work-concept.
Richard Barrett (b. 1959) is a Welsh composer who is currently based in the Netherlands. Because of his inclusion in Richard Toop’s article “Four Facets of the New Complexity,” he has typically been identified as a complexist composer. While certain elements of his work may support this aesthetic reading, he vocally resists this categorization; given the multi-faceted and far-reaching nature of his musical practice, many of his compositions in fact explore the artificial lines between aesthetic and genre distinctions rather than subscribe to any singular viewpoint.

CHARON, scored for solo bass clarinet, was commissioned by British clarinetist Andrew Sparling—along with its quasi-companion piece knospend-gespaltener for solo clarinet in C—and was completed in 1995. In addition to being a solo work, CHARON also forms a part of Opening of the Mouth (1992-97), a large music-theatre/installation work for voices, ensemble, live electronics, and electronic music whose dramaturgy combines elements of ancient Egyptian ritual and the poetry of Paul Celan.\textsuperscript{91} CHARON is a reference to the mythical ferryman of the river Styx, who takes spirits into the world of the dead—most prevalent in Greek mythology, but also appearing in a slightly varied version in Egyptian mythology as well. Barrett describes the large-scale form of the piece as referring to its titular character, remarking that the “strict and (almost) undeviating progression might call to mind the mythical ferryman of the dead from whom the music takes its title” (Barrett 1995, i).

\textsuperscript{91} As it will become relevant later, “Opening of the mouth” refers to an ancient Egyptian ritual performed during the process of mummification which symbolically restored the power of speech to the deceased, an action that enabled them to plead their case to the judges of the underworld. In the case of Barrett’s work, the words spoken by this metaphorical mouth are those of the 20th century Romanian poet Paul Celan, whose “complex constellations of images indeed include that of giving a voice to the dead [of the Holocaust], to those whose mouths were empty before being closed, the countless and the nameless. […] The poems are distilled from lyric utterances to hard and opaque fragments: concretions of a need and an inability to articulate something which is both more and less than memory” (Barrett 1997, viii).
Given the multi-faceted nature of Barrett’s music, there are many possible analytical inroads into *CHARON*. Space here does not allow me to engage with all of these, but my basic analytical breakdown of the piece provides a broad overview while still demonstrating what I consider the most relevant analytical aspect of the piece: the interrelationship of form with various parametrical structures. My analysis (Table 4.1, below) divides *CHARON* into two large sections, each of which consists of seven sub-sections. The two sections are distinguished by their general musical texture and trajectory: whereas the first section is fairly homogenous in terms of language and gestural morphology (i.e. the sub-sections flow smoothly from one to the next delineated largely by shifts in tempo and dynamic range), the second section of the piece is much more drastic: each sub-section is bookended by silence and features abrupt changes of texture and material.

<table>
<thead>
<tr>
<th>Section</th>
<th>Sub-section</th>
<th>Bar</th>
<th>Tempo</th>
<th>Time Signature</th>
<th>Focal Pitch (written)</th>
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<td>C 5</td>
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<td>6/8</td>
<td>A-flat 5</td>
<td>f—fff</td>
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<td></td>
<td>4</td>
<td>22</td>
<td>e=60</td>
<td>9/8</td>
<td>E 4</td>
<td>mf—fff</td>
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<td>29</td>
<td>e=115</td>
<td>5/8</td>
<td>B 5</td>
<td>p—fff</td>
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<tr>
<td></td>
<td>6</td>
<td>36</td>
<td>e=52</td>
<td>10/8</td>
<td>D 3</td>
<td>pp—fff</td>
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<tr>
<td></td>
<td>7</td>
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<td>4/8</td>
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<td>ppp—fff</td>
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<td>50</td>
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<td>44/8</td>
<td>no clear focal pitch</td>
<td>pp sempre</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>52</td>
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<td>4</td>
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<td>f sempre</td>
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<tr>
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<td>7</td>
<td>62</td>
<td>multiple</td>
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<td>fff sempre</td>
</tr>
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</table>

Table 4.1. Analysis of *CHARON* indicating some general organizing principles: tempo, time signature, focal pitch, and dynamic level.
However, as Table 4.1 demonstrates, CHARON is also structured by many seemingly independent parametric elements such as tempo, time-signature/duration, pitch, and dynamics. While they are important elements for any analysis of this piece, they will individually be bracketed out here in the interest of concision. My analysis will instead focus on the particularly strong dynamic interplay between these basic structural elements and deeper categories of musical material and expression; specifically, the connections between pitch, instrumental mechanism, gesture, and small-scale form.

As I indicated in Table 4.1, each of the sub-sections in section 1 can be associated with a focal pitch; a central point of tonal reference around which the melodic figurations gravitate. In addition to relating to the fundamental harmonic structures of the piece, I view these focal pitches as being delineators of specific physical relationships (or states of interplay) between the performer and their instrument. This reading elevates the underlying pitch materials to an important type of p-script; their strict materiality is therefore less important than their more conceptual role in shaping surface-level discourse.

I analyze each of the focal pitches as expressing a degree of relative “resistance” between performer and their instrument. Given the constructional idiosyncrasies of the bass clarinet (and, indeed, most woodwind instruments), some pitches are physically sensed by the performer as being more ‘open’—meaning that little to no resistance is felt from the instrument itself while sounding

\footnote{The focal pitches are consistently clear in the first section but much less so in the second. Correspondingly, the examples I will discuss are drawn from the first section of CHARON and relate to the musical dynamics of that section; the latter half of the piece will need to be addressed in future work. It is also important to note here that my analysis will refer to written pitches rather than sounding pitches (the bass clarinet sounds a major 9\textsuperscript{th} lower than written).}

\footnote{This particular analysis is also a good example of a performer generating a set or type of unique t-scripts during negotiation with the score that may not have been specifically coded by the composer: the particular formulation I describe affected my learning and performance of the piece but may not hold true for Barrett’s compositional process or in the performance of this work by other clarinetists.}
the pitch—while others are more ‘closed’ or resistant, meaning that some degree of effort is required from the player to overcome an intrinsic acoustical inconsistency. Figure 4.8 (below), maps out the focal pitches previously identified in Table 4.1, now ordered to show the relative degree of resistance felt by the performer. (The numbers below each pitch indicate its associated subsection of section 1: 1.1 is subsection 1, and so on.)

Barrett in fact points to some historical precedent for selecting pitch materials based on the inherent timbral and mechanical properties of an instrument:

> variations in intonation have been used as an expressive device, for example Bach’s occasional use of difficult or unstable pitches and tonalities in various wind instruments, and this kind of thing was in my mind when developing the kinds of pitch-behaviour which occur in my soloistic music for clarinets (Deforce and Barrett 2001, 10).

And furthermore:

> the musical materials [of my works] are evolved directly from a contemplation of the physical relationship between musician and instrument, from the mechanics of mouths and fingers to the intangible connections between mind and sound, not forgetting the cultural-historical aspect of the relationship, and so forth (Deforce and Barrett 2001, 12).

Barrett’s “contemplation of the physical relationship between musician and instrument” is often a radically idiomatic one in that he will critically examine traditionally-received elements of the relationship and develop/synthesize new connections. In the case of CHARON, his use of focal pitches to create specific physical states or types of interactions between the performer and their
instrument is indicative of this compositional interest. Broadly speaking, it demonstrates a deployment of instrumental/physical states in a somewhat analogous fashion to Cassidy’s composing of degrees of opposition between embouchure and finger staves in Metallic Dust. In both cases, the composers are in some way envisioning the specific performer-instrument relationship, and allowing elements of this interplay to inform larger formal structures during the compositional process. In addition to demonstrating the composer agent anticipating the performance nexus rather than simply the score-text (as I showed in Figure 3.5), this underlying dynamic is also a critical aspect of the systemic musical complexism I have presented throughout this thesis as the logic of the system itself can be found at all levels and within all agents.

By considering the focal pitches as p-scripts, based on their relative resistance, we can then examine intersections with other aspects of the musical and performative logic. Especially compelling is how the focal-pitch resistance p-scripts interact with other more mechanically-based p-scripts, such as a particular usage of some element of the instrumental or physical mechanism. Below, I will identify and address two instances of such interactions.

The first type of mechanically-based p-script relates to Barrett’s particular and frequent use of microtonality as tonal colouration. A particularly striking example is what Barrett refers to as “a microtonal stepped glissando” (Barrett 1995, i): an effect produced by adding unusual venting keys to a series of orthodox fingerings—typically a chromatic scale—in order to develop extremely subtle gradations of pitch and timbre. Figure 4.8 (below) shows two stepped microtonal glissandi that expand on an A-flat 4 in the middle of subsection 1.3: the diamond-shaped noteheads

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94 CHARON is an extremely microtonal piece; it is worth noting that Barrett’s use of microtones will fall into many distinct categories beyond what I describe here: harmonic, melodic, timbral, etcetera.
and overlaid +3 or +R lines indicate the fingered pitches while the regular noteheads (and glissando line) indicate the approximate aural result.

![Figure 4.9. CHARON, m. 20: microtonal stepped glissando. (Reproduced by kind permission of United Music Publishing Ltd, England.)](image)

While the passage in Figure 4.9 is a dramatic expressive gesture in its own right, on a deeper level it is about the resistance of the instrument and combines two distinct p-scripts: the breath resistance scripts that emerges from Barrett’s pitch selection, and the finger gesture scripts that are instigated by the unusual mechanical needs of the microtonal stepped glissando.

The passage’s initial jump from the resistant focal A-flat 5 (indicated in Figure 4.8 as being the most resistant of the focal pitches) to the extremely open A-flat 4 at the severe dynamic level of sfffzf is a physically jarring maneuver for the performer. The subsequent switch to a highly resistant ‘false fingerign’ pitch equivalent for the A-flat 4—at the beginning of the microtonal stepped glissando—creates another drastic and immediate physical effect for the player. It is important to note that the microtonal stepped glissandi are usually very physically resistant given that atypical keys—such as the relatively small side trill keys (the notated +3 in Figure 4.9)—are

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95 The measure shown in Figure 4.9 comes towards the end of the sub-section based on the A-flat 5 focal pitch. My reading of the passage is that, as the sub-section progresses, Barrett slowly introduces more and more ‘open’ pitches to offset and contrast the resistant focal pitch; Figure 4.9 is the only measure in the sub-section in which an open pitch is truly explored and is unique in that it moves through several differently resistant iterations of the same focal pitch class.
activated as primary venting holes. Therefore, in that the two subsequent microtonal stepped
glissandi move from unusual (and resistant) combinations of keys to more regular (and open) ones,
the gestures themselves becomes highly physical: the resistance of the instrument is gradually
abating in tandem with the ascending pitch. The final two gestures in the measure have the
clarinetist first adding the register key to fingerings associated with the extended low range,
creating another timbrally distinct (and slightly detuned) iteration of the A-flat 4. This has the
effect of making the typically open A-flat 4 very physically resistant, nearly on par with the A-flat
5 focal tone. Finally, the jump to the focal A-flat 5 and then back down to a C-1/4 flat (realized
with a very open frill fingering) is another jarring physical gesture similar to the leap that opened
the passage.

The second notable type of mechanical p-script employed throughout CHARON is
embouchure manipulation: a slackening or tightening of the jaw that affects the vibrations of the
reed and therefore the timbre and resonance of the instrument. Barrett overlays this p-script over
the staff-based materials and notates it graphically with diagonal lines to represent transitions
between the extreme embouchure positions. Given its setting against staff-based material, we can
understand it as a momentary example of parametric decoupling in an otherwise largely coupled
piece. Figure 4.10, below, offers an example to demonstrate this technique in context.

96 The combination of the register key (a regular venting hole) and these particular low-range fingerings are never
used in common practice contexts as the resultant pitches are highly microtonal and timbrally mismatched to any
surrounding pitches.
Figure 4.10. CHARON mm. 11-14: embouchure manipulation as well as diverse manifestations of the focal pitch within dense microtonal writing. (Reproduced by kind permission of United Music Publishing Ltd, England.)
In this particular example, drawn from sub-section 1.2, the written B-flat 4 is the focal tone: as I have previously indicated in Figure 4.7 (above), it is the most open of the focal pitches given that it uses relatively little of the clarinet tube to sound. In a similar fashion to my previous example, a central aspect of Figure 4.10 is the play of resistances between the very open focal B-flat and the significantly more resistant higher pitches from B natural upwards. This dynamic is broadly indicative of the conceptual resistance-based p-script that I have been describing. Given that the staff-based material is largely concerned with the enactment of this dynamic, I will therefore temporarily bracket it out as a type of basic layer over which two additional p-scripts are overlaid.

The first of these is strictly mechanical: three pitches—B natural, C natural, and D-flat—are altered timbrally/microtonally through the addition of various keys not typically associated with the production of these pitches (indicated by the spelled-out key names above the pitches). This script is very similar to the microtonal stepped glissando: a change of resistance—although slight—is implicit in each of these key overlays and therefore connects this script to the underlying pitch/resistance p-script.

The second and more dramatic script is the overlaid embouchure manipulations which both amplify and work against the other p-scripts in the passage. For example, the underlying resistance-based p-script generated by the focal pitch is in fact heightened by the embouchure manipulations: in destabilizing the embouchure—self-evidently the primarily physical locus between body and instrument—Barrett does not allow the performer to compensate for any

97 For those unfamiliar with the construction of the (bass) clarinet, this has to do with the mechanics of the instrument: B-flat 4 uses the least amount of the instrument to sound of any pitch, whereas B5 uses nearly the entire length of the bass clarinet. This is often a major stumbling block to young clarinetists, colloquially known as “the break.”
possible irregularities. For example, the very open focal B-flat 4 in Figure 4.10 is a pitch that tends towards tonal distortion and poor intonation on clarinets—especially at the extreme volume of sfffzfff. This is a nearly universal trait that is typically compensated for by the player with embouchure adjustment. With the addition of drastic and oscillating embouchure changes that do not allow the player to compensate in their usual way, Barrett heightens the underlying tension of the performer-instrument relationship and elevates this unique aspect of the instrument’s construction to an important gestural and expressive element.

The embouchure manipulations are also inherently destabilizing in regards to the other p-scripts in the passage. By adding embouchure motions over other (more precise) staff-based material, Barrett effectively undermines the intricate play of resistances and encourages many transitory and unstable sounds to emerge. Therefore, despite the relatively clear notation, Barrett does not afford the performer of CHARON an opportunity for metaphorically clear speech through a 1:1 realization of the staff-based material.

This underlying tension between communication and obfuscation of musical speech is a critical aspect of CHARON and ties into some of the piece’s extra-musical elements. CHARON is part of the music-theatre/installation work Opening of the Mouth which combines the poetry of Paul Celan with elements drawn from ancient Egyptian mythology and ritual. Although Paul Celan’s influence is more concretely felt in Opening of the Mouth given that his texts are set therein, he nevertheless leaves a definite mark on the material, aesthetic, and compositional aspects of CHARON as well. For example, Celan’s opaque use of language—a force of alienation in his poetry—is transmuted musically in the way in which Barrett sets the instrument at odds with the performer. This is enacted both through the specific materials and scripts of the piece as well as through the experience of performance itself: as Barrett describes it, “the ‘stress’ of the performing
situation is, I think, […] comparable to someone like Celan’s attempting the unsayable” (Deforce and Barrett 2001, 7).

4.5 Timothy McCormack: RAW MATTER (2015-17)

Timothy McCormack (b. 1984) is an American composer whose work emerges from a particularly deep consideration of the relationship between the performer and their instrument. Given this interest, his musical materials often focus on the immediacy of the connection between the two. He views this relationship as being an especially physical one, and one through which both bodies are fundamentally changed during performance:

Not only is an instrument not yet itself until it is held by the performer, but […] both instrument and performer are transformed as a result of their hold on one another. In their union, both the instrument and the body become dynamic forces, each with properties, laws and functions of their own, and exert their influence over the other in a mutual relationship aimed at the production and manipulation of sound (McCormack 2010, 9).

This is a particularly fascinating take on the performer agent in that it implies a critical intra-agential relationship as a basic point of departure rather than an end-point: in other words, the composer anticipating the system itself. To reframe his words using terminology from Chapter 3, the performer agent is not considered to be a unified body so much as a set of contingencies; the friction between these elements therefore emerges as a ripe field of possibilities and compositional considerations. While this approach may appear somewhat self-evident given much of the discourse in this thesis, McCormack’s reflections on this particular relationship are notable in that they are very directly manifested in his work.

His piece for solo bass clarinet, RAW MATTER (2015-17), was commissioned by Australian clarinetist Richard Haynes and demonstrates a highly-refined approach to synthesizing
discrete p-scripts into a cohesive virtual instrument.\textsuperscript{98} In many ways, \textit{RAW MATTER} is an ideal candidate to examine this dynamic: virtually every component of the piece is in some way connected to the parameter of mechanism which first acts as a generator of content and then as a generator of micro- and macro-levels of form. McCormack views all levels of his materials as being highly tangible and implicitly frames the virtual instrument of \textit{RAW MATTER} as a self-creating entity:

Though much of \textit{RAW MATTER} exists in a hushed, quiet sonic world, the piece should exude a focused intensity and volatile energy; a force that is generated from the piece’s own creation-of-itself. It is an organism at the earliest stages of its life cycle: not yet but almost a creature. It begins as a molten mass of organic matter in its most basic state. This matter churns within itself, and from that seething, different forms arise, take shape, and then are subsumed back within the viscous living mass. As the piece progresses, the material attempts different bodies, some more turbulent than others, and eventually seems to resign itself to a fixed form. Regardless of the behavior of the sound-matter at any given moment, there should be a sensation that what we witness is an iteration of the same thing in its most raw, most revealed, and most heightened. The piece is a substance slowly settling into a body (McCormack 2017, i).

The idiosyncratic notational aspect of the piece makes use of many different symbols and colours to describe the virtual instrument in terms of its mechanical inputs and sonic outputs: McCormack specifies different p-scripts of physical and instrumental mechanism and their sonic consequences, and notates them as overlapping streams of information. The notational world of the piece would take far too much space to describe here, so I will limit my consideration to a few selected elements. A further complication is that many p-scripts in \textit{RAW MATTER} arise not from discrete streams of material but from overlapping instructions and parameters. McCormack (2014),

\textsuperscript{98} As an aside, the use of the term “matter” in title of the piece unites it with a loosely-defined cycle of solo works that explore similar conceptual issues on other instruments. In chronological order, these are: \textit{HEAVY MATTER} (2012) for trombone, \textit{DRIFT MATTER} (2013) for cello, and \textit{BODY MATTER} (2015) for amplified bassoon.
for example, has described his cello solo *DRIFT MATTER* as being a similar multi-directional entity: “since every moment of the piece is an intersection of multiple techniques, this sonic object is being pulled in multiple directions at once, reconstituted second by second” (McCormack 2014, 122).

*RAW MATTER* is similarly concerned with the constant layering and overlapping of distinct physical materials in such a way that the sonic outcome of the piece is in constant flux. Given that the bass clarinet is not as naturally well-suited to this level of sonic constancy, McCormack enacts this dynamic by requiring the clarinetist to employ circular breathing throughout the circa 25-minute duration of the piece. Ingressive breaths drawn through the instrument are therefore specified, coloured by fingering choices and various oral cavity positions. (McCormack also specifies egressive ones deployed with similar details). Although potentially straining to the performer, this facet is critical to the overall work-concept in that it exemplifies the compositional focus on the constant and organic development and layering of material.

*RAW MATTER* uses a relative time-space notational image which suggests but does not concretize rhythm or duration. Instead, McCormack uses a relational placement of noteheads set within a grid of faint vertical lines that demarcate sections of approximately 7 seconds (and also aid with general visual positioning of elements). This use of space allows the performer to connect deeply with the materials of the piece without necessarily being constrained by time.

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99 This article, though not widely cited throughout my analysis, informed the general analytical approach to *RAW MATTER* throughout this section.

100 McCormack 2014 begins with the bold statement: “There is no silence in my music” (119).

101 This is perhaps a less ‘complex’ take on the rhythmical domain than in other complexist works (in which rhythm tends to heighten the decoupling and defamiliarizing p-scripts). However, given some of the other material issues inherent in *RAW MATTER*, this shift does not fundamentally alter the performer-score dynamic.
One unique approach to the instrument’s mechanism is the composer’s frequent use of “fingering amendments” (McCormack 2017, i). These amendments appear almost constantly throughout the work, and are a critical type of p-script that shapes the physicality of the performer-instrument relationship and, of course, the sonic outcome as well. The composer identifies twenty-one keys that—singly or in unusual combinations or clusters—may be either added to or subtracted from standard fingerings throughout the piece. McCormack is thereby able to create passages of very fine timbral nuance and distinction as well as a very full palate of microtones, multiphonics, alternate fingerings (i.e. bisbigliando or “colour” fingerings), and glissandi. Instead of the conventional addition of fingering diagrams positioned around the staff, McCormack represents these amendments as specific noteheads (sometimes shaped like the (de)activated keys themselves) on the five-line staff, thereby emphasizing their critical function as discrete p-scripts. McCormack typically layers these finger-amendment p-scripts as a means to develop the material and move from one fixed state to another (cf. McCormack’s description of RAW MATTER as “attempting different bodies” above).

A particularly effective example of this is found relatively early in the piece and is shown in Figure 4.11 below.

Figure 4.11. RAW MATTER, page 2, line 1: a transition between two stable states.
Keeping in mind that McCormack describes the piece as “attempt[ing] different bodies, some more turbulent than others,” I will often describe sonic states in terms of their relative stability or instability. This relative (in)stability refers as much to the sounds themselves as the physical state of the performer. The A-sharp at the beginning of Figure 4.11 is one of the early stable moments of the piece: a regularly-fingered note which slowly pulses through various sonic states (represented by the changing noteheads). Partway through the example, a cluster of keys is introduced to the basic fingering of the note: the fingers associated with F3 through F4 are depressed, creating a timbrally-altered and slightly lowered (approximately 1/16 tone) A-sharp 4. This resultant pitch is indicated by a green notehead, the use of which always indicates the sonic outcome of a particular constellation of finger p-scripts. This timbrally-altered A-sharp is then lowered by means of the embouchure to an A-natural, which also requires the cluster of keys to be raised given that the A-natural is a regularly-tempered pitch. During the following pulsation of the A-natural, the same cluster of keys is depressed, which creates the much more drastic action of lowering the note to an A 1/4 flat. Very soon after this, the base fingering that is to be amended by other elements of the mechanism (always indicated by a red notehead) switches over to a low E-flat3 with the A4 key activated. In reality, however, this shift is largely a semantic one in that the A4 key was already open from the previous note (A4) and the E-flat3 fingering indicated as being the base fingering requires only the addition of a single key to the cluster that was being depressed anyway. This sequence has led the bass clarinet to an extremely delicate and pulsating G-sharp 4...

102 As an aside, this stable A-sharp was arrived at through a similar process of mechanical and gestural instability such as I am about to describe.
and A 1/4-sharp 4 dyad multiphonic, another stable state which is then maintained and elaborated upon for some time before it is itself subsumed back into the viscous matter of the piece.

Figure 4.12, below shows an extremely complex cluster of overlaid mechanism scripts working far more divergently than the example in Figure 4.11. A notable aspect of this passage is that the gradual shifts in mechanism (indicated with arrows between elements) create a number of unpredictable and transitory sonic states. Additionally, this passage features very quick shifts between many states of inhaled/exhaled air and breathy tone (pitched inhalations indicated by the overlaid “<” notation on beams, and various square/diamond-shaped noteheads to refer to different tonal states), creating an extremely dense and contingent musical gesture.

Figure 4.12. *RAW MATTER*, page 5, line 1: a complex set of overlaid mechanical actions.

Together, figures 4.11 and 4.12 demonstrate McCormack’s use of very specific mechanical p-scripts as a means of transitioning between materials and sonic states. Key clusters introduced to more stable sonic states, for example, are inherently multi-perspectival in that they engage physical actions that have sonic consequences but are also a means of creating discourse between various p-scripts that are operating concurrently.

McCormack also specifies and layers numerous types of distinctly physical scripts. In addition to concretizing and developing sonic discourse, these physical p-scripts can also lead to
extremely complex clusters of divergent materials. For instance, in Figure 4.13 (below), we see the active layering of numerous distinct p-scripts as the material moves towards a fleetingly stable multiphonic state.

Figure 4.13. *RAW MATTER*, page 3 line 5: a complex layering of p-scripts.

In Figure 4.13, McCormack has also encoded the use of the sung voice glissandi (the light grey notehead) that both shadows and works contrary to the bass clarinet’s own pitch glissandi. Importantly, the layering of singing over conventionally-played (if not conventionally-sounded!) pitches creates a large physical and sonic disturbance, with an increasing level of friction as the voice and bass clarinet pitches sound closer together. The first gesture in Figure 4.13 is therefore essentially a double glissando at the interval of a quarter tone: the glissando in the fingering constellation enables a smooth slide between a G 1/4-sharp 4 and a G-sharp 4, while the voice doubles this gesture one quarter tone higher (G-sharp 4 to A 1/4-flat 4). From this point, the bass clarinet and voice create very complex timbral effects between glissandi to and from unisons that are first nearly in tandem and then completely oppositional, ending with a stable B 1/4-sharp 4 over which a slight mechanistic change is made to develop a multiphonic sound.
In another very layered passage (Figure 4.14, above), we can observe multiple (1) overlaid articulations executed either with the tongue or with the diaphragm, (2) fingering amendments, (3) sung pitches, (4) unusual vertical jaw pressures, as well as a number of sonic states implied by the differently-shaped noteheads. This example is more indicative of a layering of parametrically decoupled p-scripts as we have seen in previous examples; the difference here being that McCormack intends for fairly specific sonic outcomes rather than the more indeterminate ones anticipated by Pàmies and Cassidy, for instance.

One final example (Figure 4.15, above) shows material from the end of the piece. Settling finally in the lowest register of the bass clarinet, the final virtual form of the instrument is actually created through the rhythmic layering of three distinct p-scripts: first, the basic fingered/sounded pitch (sometimes articulated by a dull slap tongue, as with the second iteration of the D-flat 3);
second, a quick but regularly-pulsing open/close gesture of the first finger of the left hand (the E4 open notehead) which, given the surrounding context, creates an extremely fleeting complex air/pitch/multiphonic sound; and third, a diaphragm pulsation which occurs on a distinctly separate temporal layer from the first finger pulsations. The interaction of these layers shows how a virtual construction can be defined by three different concrete p-scripts in different states of (in)stability: in this case, two fingered scripts and one breath/embouchure script. Furthermore, it demonstrates how—especially in relation to the latter two layers—temporal and material conflicts from elsewhere in the work continue to resonate in these otherwise stable states.

Given the continually progressive and developing nature of RAW MATTER, it’s difficult to delineate the borders of specific script interactions: rippling circles extend a single gesture outwards into a broader material script, a sub-section of the piece, the work itself, and finally the performance nexus. The resulting multi-strata cohesion demonstrates not only the depth and nuance of the radically idiomatic virtual instrument, but also the multi-layered external connections implicit in its usage. In any case, it is not important here to document every different or possible interaction so much as to comment on the nature of writing itself: as I have already stated, RAW MATTER is fundamentally a piece about creating a unique and virtual instrument through which all aspects of the work’s complex interactions are reflected. In many ways, RAW MATTER is the most radically idiomatic of all the works that I have so far presented, in that it is very much about the instrument itself—or, rather, the instrument and performer together—given how all its material is thoroughly grounded not only in the bodies of the instrument and the performer but also in their dynamic and often chaotic interactions.

In RAW MATTER, the performer-instrument body and its implicit scripts are therefore at once maximally fragmented and totally united: nearly every element of the mechanism and the
performer’s technique is divergently engaged while the overall effect is generally a constructive one. In many cases we might experience what sounds like a 1:1 ratio between the technical and sonic elements, but these moments of cohesion often result from the confluence of highly atypical mechanical scripts. *RAW MATTER* therefore creates enormous feedback loops between the translation scripts and the enactment scripts within the body of the performer. In this way, the performer agent embodies an even more paradoxical form of multiple agency in which the boundaries of the agents and the scripts are extremely fluid.

### 4.6 Conclusion

To set the stage for the final chapter of the thesis, I want to underscore that the aspects examined throughout this chapter—issues primarily relating to the interaction between performer and score (t-scripts)—are only one side of the larger equation of complexist performance. All the various script types I have proposed, no matter whether they are specifically material or more broadly conceptual, are in some way indicative of a decoupled score agent and a correspondingly decoupled performer agent within the performance nexus. However, we can see how these scripts are to a large extent contingent on the level of familiarity between performer and score. In examining complexist performance, it is not merely the p-scripts that we need to consider but also the context of their interactions: the history of the system therefore itself becomes a particularly important form of contextual pressure in the subsequent operation of the system. In any of the works I have addressed in this chapter, the various scripts and the resultant unusual physical states that are provoked will necessarily become increasingly more concrete and stable over time, requiring (but also enabling!) the performer to dig ever deeper into the material of the piece as well as the nuances of their interpretation. This requires a constant level of critical self-evaluation and
examination of performance decisions and outcomes. It also requires balancing the level of technical familiarity and comfort required to perform works that demand a high level of ability with the need to maintain the conceptually defamiliarized relationship with the p-scripts and the general work-concept.
Chapter 5: Examining the history of complexist performance systems

5.1 Introduction

Preparing a complexist piece for performance is a process that transpires over days, weeks, and months, and the complexist performance nexus evolves during this time. Accordingly, the final facet of complexist performance that I will address is the idea that the history of a complex system is manifested in its present activity. In addition to Cilliers’ positing of this feature as a crucial aspect of a complex system (cf. Section 3.2), it is a highly relevant discussion that will augment and clarify many of the points I have been making about complexism throughout this thesis.

Analyzing qualitative system change as a result of experience and time obviously has a particularly strong bearing on a musical work given that performers will tend to have long, complex, and evolving histories with the music they prepare and perform. Furthermore, in that both parametric decoupling and the dynamic informational exchange between agents via p-scripts are experienced by the performer in the moment during both rehearsal and performance, they are consequently shifting and evolving with the passage of time. This chapter therefore allows me to incorporate this essential factor into my conceptualization of the complexist performance system: whereas I previously discussed the roles and relationships of the primary agents and scripts (cf. Section 3.4), an examination of the history of the system will shed light on some of the contextual pressures that also shape the performance nexus.103

103 While this topic is much larger than could possibly be addressed here, it is my hope that this chapter will spur additional work in the domain of theorizing the various contextual issues of the performance nexus.
The central argument of this chapter is that the level of defamiliarization implied by the work-concept moves through several distinct stages from the first time the piece is read, through the overall learning process, to the first public airing, and beyond with every subsequent performance. The critical dynamic of this process is in the shifting qualities of p-script interactions: examining the ways in which defamiliarized and decoupled t-scripts tend to become more familiar for the performer agent over time, causing the e-scripts to become more ossified. Over time, this dynamic leads to a situation in which the generated performance text is shaped less by the direct interaction of p-scripts and more by the repeated physical and sonic actions of the performer (i.e. a development of predictable indeterminacy in performance). Predictability and familiarity are deeply negative traits that undermine the complexist work-concept goal of an extreme performance situation as an expressive musical element. Given my earlier arguments that the performer must embody complexism in performance so as to elevate its complicated score-based instantiations into the realm of complex physical interaction, the maintenance over time of a habit-free p-script discipline is critical. This relies significantly on the highly contingent dynamics of personal integrity and fidelity to the underlying work-concept. But in that it is impossible—and indeed irresponsible—to generalize about these factors, my discussion will operate within a more or less idealist paradigm.

This chapter will comprise two main sections. Section 5.2 will hypothesize some major stages in the history of a complexist performance system through a deeper look at the changing interactions between the p-scripts and agents within each stage. I will also advance a particular type of interpretive philosophy that engages with the decoupling and defamiliarizing work-concept typical of many complexist pieces. Section 5.3 will build on my basic formulation by reflecting on my own personal experiences with Ray Evanoff’s *Narratives* for solo E-flat clarinet, a major
complexist work for clarinet. Not only does Narratives exemplify many of the performance issues and values that I have highlighted throughout this thesis, but it also is a work with which I have a rich performance history, making it an ideal candidate for self-reflection. My goal is to examine exactly how my relationship with the work, and specifically with its p-scripts, has shifted over time and, furthermore, how I enact the ideas I outline in this chapter. A critical aspect of my artistic practice with these pieces is working to maintain a level of decoupling and confrontation in performance. As I have mentioned, a host of personal values are implied by these shifts: what level of responsibility do performers bear in keeping a complexist work complex over time? And how do we enact and maintain the level of conflict and decoupling implied by p-scripts so as to actualize this fundamentally complexist aspect of the work-concept?

5.2 Theorizing the history of complexist performance systems

As noted during in Section 3.2, Cilliers suggests that the history of a complex system is a critical factor for understanding and analyzing its present operation:

(ix) Complex systems have a history. Not only do they evolve through time, but their past is co-responsible for their present behaviour. Any analysis of a complex system that ignores the dimension of time is incomplete, or at most a synchronic snapshot of a diachronic process (Cilliers 1998, 4).

Before we explore these ideas in the context of the complexist performance nexus, two basic factors will need to be considered. First, because the author’s writing process is not explicitly figured in Eco’s model of literary reception, the composer’s compositional process is likewise not explicitly shown in my model of the complexist performance system. Nonetheless, the compositional process is of course a critically important stage in the history and evolution of each complexist work (and the associated complexist performance system). Cilliers’ theory suggests
that traces of each aspect of system history will be manifest at least implicitly in other parts of the complex system. Accordingly, his theory suggests that the compositional process may impinge somehow on the performance nexus during the various stages of the performer-score relationship. Without denying the explicit and implicit impacts the composer’s process may have on the subsequent history of complexist performance, I will not explore this highly piece- and composer-specific topic here, and will continue to focus entirely on the performance nexus, and its history as it is evolved and experienced by the performer.104

Second, the “synchronic snapshot of a diachronic process” that Cilliers describes in a somewhat negative light is inescapable in complexist music because, as I have previously suggested, any rehearsal or performance can never be more than a snapshot of the system. This is a necessary outcome of the inability of a performer to encapsulate the totality of complexist materials, strata, and interrelationships present in a complexist work within the context of a performance. A complexist performance is therefore like a “synchronic snapshot” in the sense that it captures a stage in the performance nexus’ diachronic evolutionary process at a singular point in the history of the performance system. While this is true to an extent with all musical performances of score-based works, the central difference that I emphasize with complexism is that the nature of the work (and therefore the performance nexus itself) is such that performance can only be a momentary encapsulation of all the materials and connections present in the work.

The counter-argument could be made that performances are themselves diachronic experiences given that they engage with a singular work over a period of time during performance.

104 This topic presents an excellent opportunity for future study. For example, the perspective of a composer-performer would be an apt way to explore the concatenated histories of the compositional and performance processes.
While acknowledging this as true in many respects, it is worth noting that the materials of a complexist work are akin to a set of inert possibilities and potentialities (cf. Section 3.4). The act of performance—while diachronic in the sense that it occurs linearly in time—is therefore fundamentally synchronic in that it presents one particular instantiation of the set of materials, stratum, relationships, scripts, and so on. This is an essential point for two reasons: first, it enables us to consider the resulting performance as a kind of singular text that exists fully at the (synchronic) moment of its completion, and that operates within the performance nexus with its own agential power. Second, it highlights an important informational exchange between other similarly “synchronic” stages in the system—rehearsals and performances—within the diachronic evolution of the performance nexus.

These synchronic “snapshots” should in fact be considered highly desirable products as they foster some of the necessary feedback loops characteristic of complex systems. Given that I have previously established that performances are texts, we can observe that traces of these linger within the performance nexus as the system develops and are a critical influence in shaping the way in which the score is interpreted. Specifically, these performance texts often affect the way in which the score is subsequently read and negotiated: qualifiers such as “successful” or “desirable outcome” (based on the performer’s individual reading of the p-scripts) will necessarily emerge, and it is these that then feedback and affect future readings of the t-scripts as well as the formation of new e-scripts. Given the complexity of this process it can only be broadly summarized here: essentially, synchronic snapshots can happen on either a micro- or a macro-level (i.e. on the level

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105 Cilliers (1998): “(vi) There are loops in the interactions. The effect of any activity can feed back onto itself, sometimes directly, sometimes after a number of intervening stages. This feedback can be positive (enhancing, stimulating) or negative (detracting, inhibiting). Both kinds are necessary” (4).
of individual p-scripts to the entire performance) and can be both a deliberate and/or unconscious cognitive process within the mind of the performer. In all cases, it is through these snapshots that performers gain needed perspective on the system itself in order to instigate and shape further development. (This idea will be the focus of Section 5.3.)

Therefore, in adapting Cilliers’ theory, I hypothesize four basic stages in the performance history of a complexist performance system. Broadly speaking, these stages are characterized by marked shifts in the relationships between agencies and p-scripts. However, the contingent nature of elements in the complexist performance system necessarily means that the following categories are imprecise in purview and definition. This is especially true of scripts, in that they are characterized by a level of contingent meaning-bearing dependent on specific scores as well as the individual readings by different performers.

**Stage 1.** The initial reading(s) of a piece. This stage is defined by the highest level of defamiliarization relative to the performer agent’s first efforts in developing t-scripts. These efforts may require an initial orientation to determine what kind(s) of t-scripts will be needed, and “where,” and the initial scripting efforts may also involve false starts of various sorts. Depending on the nature of the piece, the level of physical confrontation between the agents may be quite extreme, with specific score-based musical elements—collections of overlaid physical gestures, for example—not having reached a point of stability or coherence for the performer.  

This is perhaps the closest instantiation of an idealized complexist interaction that can exist within the system in that the physical processes of the piece dominate over any sort of coalesced musical result (which is typically a function of experience and time spent with a piece). Despite

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106 This would especially be the case in the Pàmies or Cassidy examples from the last chapter, for instance.
this, an analysis of preliminary e-scripts emerging from this stage is irrelevant given the likelihood that the work’s musical elements are not being realized with anything approaching full technical understanding or capability. (In fact, preliminary e-scripts sometimes have to be “unlearned,” if they incorporate an unwanted impulse that does not fit the circumstance.)

It is also critical to note that some contextual issues can already colour the agential relationships in this stage: for example, the performer may have some history with works in the composer’s catalogue, or altogether different pieces that use similar musical and conceptual constructs or interactions. Such past experiences would necessarily influence the initial readings and, as such, the interaction of agents and the defamiliarization implied by p-scripts during this stage. 107

Stage 2. The learning process. This is a broad stage, with a starting point that can be difficult to define, and often encompassing a number of smaller stages. The starting point depends to a great extent on the nature of the piece itself: based on my own personal history with a variety of complexist pieces, I define it as being roughly when the physical requirements of the piece (especially when these are more openly confrontational in terms of decoupling of physical/mechanical elements, as with the Pàmies and Cassidy examples in Chapter 4) have been discovered and practiced and, importantly, are consistently reproducible. Reproducibility assures that some level of positive (i.e. developmental) interpretive work can be accomplished in rehearsal rather than just an exploration of the various requirements of the piece. (Sometimes a physical/technical skill or capacity has to be learned before the specific piece can be learned.) If

107 We must acknowledge that it is, of course, impossible to escape some level of context or history with any musical work.
the physical requirements are already mastered, this stage of learning the piece could begin as early as the second reading of a score. In some cases, the start of this stage can be quite clearly delineated: Pàmies’ *es kümmt drauf an, sie zu verändern* (cf. Section 4.2), for example, first requires the performer to produce a distribution of the basic material before rehearsing and learning the piece. In doing so, the performer makes a deliberate and clear shift from preliminary experimentation with the material to the rehearsal of their distribution.

This stage is closest to the complexist performance system depicted in Figure 3.4 and is characterized primarily by Eco’s idea of interpretation as negotiation: “a dialectic between openness and form, initiative on the part of the interpreter and contextual pressure” (Eco 1990, 21). The process of negotiation takes place primarily as a function of p-scripts as the performer-score relationship deepens and complexifies: as t-scripts are developed and negotiated, more consistent e-scripts begin to emerge, forming what is typically understood as an interpretation. Given the more generative dynamic in this stage, we can observe specific discursive elements and interactions beginning to shape the various formal and material levels of the piece and contributing to the overall development of a meaningful interpretation. Over time, these elements are refined into what the performer determines to be an aesthetically acceptable form, ready for performance. The criteria for having reached this acceptable form are difficult to define in general terms, especially given the diachronically dynamic unpredictability of complexist performance. I advance that they will have been negotiated between the performer’s aesthetic idea of the piece and the composer’s work-concept—here I must factor the compositional process into the conversation—as manifested in the score agent and enacted by the performer through the p-scripts during rehearsal and performance. (Performance readiness might also be defined in relation to inter-script
interaction: the balance of decoupling and defamiliarizing t-scripts with generative e-scripts, for example.)

Importantly, this stage is the first in which the history of the system begins to emerge as a critical factor in its own interpretation, especially through the performer’s gradually accruing production of partial or complete performance texts in rehearsal. This buildup includes the evolving contextual pressure in the performance nexus that I have been describing. Furthermore, Cilliers’ point regarding systemic “feedback loops” is highly applicable to this stage of development in that the interaction of p-scripts during each rehearsal of the piece deepen the performance nexus and leave traces that inform subsequent instantiations or realizations of the work.

**Stage 3.** The first performance. This a highly significant “snapshot” (to again echo Cilliers) that represents a clear output of the first two stages of the interactions. An idealist description of this stage (admittedly brief by comparison) is that it presents the state of the system that has emerged during the learning process as negotiated by the ongoing relationship between score and performer via p-scripts. In my experience, the interaction of t-scripts and e-scripts is relatively harmonized during this stage: the performer is balancing the complexist work-concept with their own interpretive impetus, and the information streams of the t-scripts and e-scripts are actively shaping one another. Their looping interactions are in many ways affirmative, facilitating either successful performance action, or a relevant decoupling of performance action.

It is, however, the contextual pressures of the performance nexus that are of interest here. By this stage these pressures have become highly multifaceted and deep, embedded in the entire history of the learning process, and include traces of performance texts produced during rehearsal. These earlier trace-texts will continue to act as precedents that, to a certain degree, shape the
current interpretation of the score. Furthermore, because performance is typically a live and singular airing of a work, other more temporary sources specific to live performance will colour the context: for example, the presence of an audience, as well the conditions of the performance itself such as the acoustics of the venue, the physical and psychological readiness of the performer, etcetera. Given these many contextualizing elements, the script and systemic interactions witnessed by the audience as an act of performance are inherently rich (in the multi-perspectival and interconnected sense intended by Cilliers, Toop, and Mahnkopf) while also being characterized by a level of translational inexactitude between scripts.

In that a first performance is singular and an end-point of sorts, it becomes a critically important “synchronic snapshot of a diachronic process” (Cilliers 1998, 4), albeit one that will itself become subsumed into the body of contextual pressures and inform subsequent performances of the work. And because the initial learning process is now more or less complete, the performer can now reflect upon and evaluate the history of their performance-nexus up to its first performance, to inform their future performances of the work.

**Stage 4. Subsequent performances.** This is perhaps the most complicated and difficult stage to delineate and define.108 Eco offers a particularly compelling thought on the relationship between multiple performances of a single work:

All performances are definitive in the sense that each one is for the performer, tantamount to the work itself; equally all performances are bound to be provisional in the sense that each performer knows that he must always try to deepen his own interpretation of the work. Insofar as they are definitive, these interpretations are parallel, and

108 Importantly, this stage can also encompass further learning processes similar to stage 2. These should be understood to be implicit in the interpretive philosophies that I will describe as a way of developing deeper connections with pieces and their materials.
each of them is such as to exclude the others without in any way negating them (Eco 1979, 64).\footnote{This quote comes from a passage in which he writes about the performance of open score musical works—especially the interpretive dynamics of the work in motion (cf. Section 3.3)—and is therefore highly relevant.}

Eco is talking primarily about the relationship of performers and texts: specifically, the dynamic informational interchange between score, performer, and performance that had I indicated in Figure 3.4 as being the critical relationship in the complexist performance system. While his remarks are absolutely correct in regards to the more or less parallel nature of the separate performance texts generated over time, his argument does not take into account the underlying contextual issues I am addressing here, of the performance (including the work-concept) and its systemic history—a facet of all musical performance.

For example, Eco’s claim that each performance is “tantamount to the work itself” echoes Cilliers “synchronic snapshot of a diachronic process” that I have previously identified as a necessary byproduct of musical performance. The nature of any performance is such that it only represents one possible outcome of the interaction between p-scripts in the moment of performance: this is especially true in regards to complexism given the typically contingent nature of complexist materials, p-scripts, and counter-scripts. For instance, I have previously indicated that what the audience perceives during a performance of a complexist piece is not strictly the composer’s score as mediated by the performer. Instead, they are receiving the contextualized meanings and specific instantiations of the musical and conceptual materials as negotiated and actualized through p-scripts during performance. A complexist piece is never adequately represented by the score; it requires the operation of the entire system.
This is an essential formulation because it then requires us to contemplate the great number of contextualizing pressures that factor into the interpretation and performance of a musical work rather than just the specific performer-score dynamic. Eco’s assertion that subsequent performances typically move in a direction of greater or deeper levels of interaction with these work scripts—despite the impossibility of ever realizing their totality—is therefore relevant, but rather simplifies the issue. What he is describing is obviously a natural process of time and experience with a piece. This idea, however, neglects the conceptual dimensions of some contemporary musical works, including complexism. Complexist scores are not formally closed material-bearing forms like literary texts (or even music of the common practice era, though I do not wish to engage with that particular distinction) so much as a collection of volatile materials or scripts whose interactions are governed by an overriding work concept that can—and should—actively shape the performance itself.

What this means in terms of performance history and development is that it is not necessarily correct to value or idealize a performer’s familiarity with a musical score. Of course, the relationship between the performer and the work will naturally deepen over time. However, pushing back against this inevitable dynamic remains the critically important idea of the work-concept acting as both p-script and contextual pressure in its own realization. While such a dynamic exists with all score-based music, it is more pronounced and extreme in complexism, given the specific materials and conceptual factors that I have outlined throughout this thesis. Specifically, we can point to the often parametric nature of complexist materials as enacted through

110 As an aside, the open score musical works to which Eco refers also include this critical conceptual dimension which factors into their interpretation. It is obviously outside the purview of this thesis, but I would also critique his formulation of open score performances for very similar reasons.
p-scripts during performance as being directly responsible for a level of indeterminacy and the dynamic of confrontation that emerges within the system. Given that this type of systemic interaction is anticipated (and perhaps encoded) by the composer, we can therefore see fairly specifically how this aspect of the work-concept conditions the interactions of scripts during performance. It demands from the system a balance between the equitable interaction and exchange of information between t-scripts and e-scripts and the dynamics of conflict and comfort within the performer.

Subsequent performances of complexist works are therefore governed by the often tenuous need to maintain these balances and informational exchanges in such a way that the underlying aspect of the work-concept implied by decoupled p-scripts can be consistently realized. This relates closely to the dimensions of responsible interpretation—what Ferneyhough described as “meaningful inexactitude,” for example—in that it is imperative that the performer acknowledge this characteristic dynamic of the work-concept through their performance practice. The values of familiarity and comfort are anathema to complexism: to rephrase, using one of Cilliers’ preconditions for systemic complexity, “equilibrium is another word for death” (Cilliers 1998, 4). This is, for me, a vital distinction to be made between more conventional philosophies of interpretation and those of complexist music: the former is about mastery and control, whereas the latter—as I will describe—is a performance practice that attempts to harness and cultivate instability so as to constantly actualize the aspects of the work-concept I have been discussing, including a radical approach to the given instrument and its performance possibilities.

Of course, this interpretive philosophy is highly contentious as it requires a willingness on the part of a performer to destroy the comfort, control, and—most importantly—the interpretation itself that has developed over the many hours spent rehearsing a complexist piece. These values
self-evidently contravene very deep-seated aspects of the institutional training (i.e. in university or conservatory contexts) that have shaped the majority of working musicians today. Given the difficulty of generalizing about these concepts, the following section will examine my own practice as a performer of complexist music as a means of developing and demonstrating how these philosophies may be enacted.

5.3 Autoethnography: Ray Evanoff’s Narratives

For two reasons, Ray Evanoff’s Narratives for solo E-flat clarinet stands out as the perfect example for this chapter: first, of all the complexist works in my repertoire, I have had the longest relationship with it and most numerous performance experiences. Second, given that it emerged from an intense collaboration with the composer—a dynamic which continued through my learning process, various performances, and continues to inform my practice—it is the piece in my repertoire to which I am closest. For these reasons, I am uniquely qualified to discuss it and to draw connections between some of the material and discursive threads present in Narratives and various elements of this thesis. My primary intention here is to trace my experiences with certain elements of the piece—specifically, the evolution of my relationship with the score’s work-concepts and parametrically decoupled p-scripts—across the four stages that I outlined in the previous section.

In 2013, I commissioned two works from Evanoff: Narratives, and Notables for piccolo and E-flat clarinet. Notables was the first to be completed and premiered (January and March 2014, respectively) and many elements of Narratives therefore came to be informed by our collaboration on the duo and our correspondence following its premiere. This aspect of the collaboration focused especially on certain material and conceptual components that we had identified in Notables as
being elements warranting greater consideration, exploration, or nuance. Examples include the
parametrization of embouchure positions (the open, bite, full bite, and oscillating positions as
described in relation to *Quieted* in Section 3.5) as well as the relative level of informational density
that the characterizes the first part of the work. *Narratives* was subsequently completed in the fall
of 2014 and then premiered in February 2015. Since then, I have performed the work four times
(November 2015, August 2017, July 2018, and September 2018), produced a studio recording
(February 2016), and given two joint conference presentations with Evanoff on elements of its
instrumental writing and our collaboration (November 2015 and July 2018).

An analysis of the diverse types of p-scripts in the work is not the specific aim of this
chapter, and I will forego a detailed analysis of *Narratives* in those terms here.\textsuperscript{111} Instead I will
provide an overview of the p-scripts, and then concentrate on an autoethnographic reflection on
the process of learning and performing the piece multiple times. In fact, many of the basic
compositional and conceptual elements of the piece are similar to *Quieted*, already discussed at
length in Section 3.5. The only major difference to note is that the parameter of shifting the position
of the mouthpiece relative to the embouchure (as indicated by the circled numbers below the staff
in *Quieted*) is not part of *Narratives*, having emerged later in our collaboration as a point of
interesting material exploration.\textsuperscript{112}

\textsuperscript{111} As an interesting aside, Evanoff’s programme note for *Narratives* reflects many of the ideas I have been addressing
throughout my thesis. Specifically, the idea that a complexist work encompasses a body of multi-perspectival
materials, their connections, as well as the difficulty of delineating systemic borders. He writes: “*Narratives* is titled
thus because of its numerous entwining threads. Some of these are musical, some of these are personal, some of these
are born from conversations between myself and Liam Hockley, for whom the piece was written. It incorporates these
threads without fully encompassing them. It is not a complete picture. Still, what is present tells a tale, however
fractured or friction-laden, although of what is not precisely articulable. Music extends narration’s boundaries here”
(Evanoff 2014, i).

\textsuperscript{112} It is worth noting that *Quieted* for solo bass clarinet is one part of a larger and currently unfinished project entitled
*Full*. In the interest of specificity, another element not present in *Narratives* is the specific embouchure position
Figure 5.1, below, provides a brief score sample from *Narratives* to give an impression of the many separate parametric p-scripts it necessitates and to provide a basic characteristic frame of reference for the overall nature of the work. 

Figure 5.1. *Narratives*, mm. 16-19.

*Narratives* was in fact the third clarinet work by Evanoff that I had learned: I was first introduced to his work in May 2013 through his clarinet/piano duo *All of the Inquiries I Can Offer Right Now* and the related set of two solo miniatures *A Series of Postures (Clarinet)* that are extracted from the clarinet/piano duo. (The second piece is the aforementioned *Notables* for piccolo and E-flat clarinet.) As such, certain conceptual elements of his work as well as many of his general compositional concerns had already become familiar to me and were therefore more “threshold open,” which also emerged later as both a way of developing additional nuances of the embouchure positions we had developed in *Narratives* and as a way of addressing the greater number of possibilities in this domain available to the bass clarinet.
normalized as p-scripts than they would be for a clarinetist encountering Evanoff’s work first through *Narratives*. This is an especially important consideration: while the level of quantitative complexity in *Narratives* was higher than I had experienced with his music before, many of the basic building blocks of his language were already in place for me, facilitating some of the early stages of the learning process.

As I have previously indicated, *Narratives* has many physical parameters situated in a more or less oppositional dynamic. Given the layering of these elements (in addition to the difficulty of the staff-based material), the number of discrete p-scripts pose a fairly extreme challenge to the performer during stages 1 and 2. For me, the most challenging of these were the various embouchure scripts, which were among the new elements Evanoff introduced after *Notables*. The difficulty emerged from the fact that these scripts defamiliarized an aspect of clarinet playing that I had previously understood to be largely fixed. Aside from the physical development of these relative jaw tensions, it was critical in the early stages of learning to establish a consistent sense of where they lay in relation to one another and in relation to the typical tension of the embouchure. As an interesting aside that could have important implications for pedagogy, these explorations fostered a more nuanced understanding of the role of the jaw in forming the clarinet embouchure and how small shifts in position trigger specific sonic outcomes. I have subsequently discovered that exploring other radically decoupled aspects of my technique within complexist works has shed fascinating analytical insights on playing mechanisms that I had perhaps taken for granted over years of study.113

113 Cox (2002) also highlights this experience of learning complexist music: “All players who have seriously attempted to master the challenges of radical complex music can testify to the transformative effects these challenges have on one’s relationship to the instrument” (128). Cook (2013) echoes this sentiment: “one of the fundamental values of this culture [complexist performance] […] is a commitment to transcending the ‘conventional wisdom’ to which
The learning process of *Narratives* therefore establishes a type of unusual physical choreography: the gestures that drew from several discrete systems (i.e. fingers, embouchure, and breath) had to be learned separately and then brought together and balanced so as to realize their prescriptively-notated discourse in the score. This intense focus on this micro-level aspect of the piece, however, was forced upon me to an extent in that I received *Narratives* in sections: initially only the first two pages, followed by another page or two every ten days to two weeks.\(^{114}\) This coloured my initial approach to *Narratives* quite significantly; although the micro-level detail would have anyways been my initial focus in rehearsal, I was only able to consider and make macro-level interpretive decisions much later in the process. For my practice at least, this presented a challenge to the early stages of learning in that I was unable to contextualize the micro-level detail that I was rehearsing. Receiving the score over a longer period of time also had the effect of blending aspects of the first two stages together in that I was constantly receiving new material—often with different parametrically-based p-script challenges—that would nuance or even change my approach to previously-learned material.

At this point in my personal history with the work, the vagaries of memory may interfere with accurate commentary: my recollections of stage 3, the first performance, may be coloured by my subsequent performances. What I can say, however, is that much of *Narratives* had assumed a more or less fixed physical identity by the premiere: the physical gestures of performance were strongly-formed and learned to the extent of being fairly reflexive. The interaction of t-scripts and

\(^{114}\) This was due to the time Evanoff needed to typeset the piece in notation software rather than the composition process itself being incomplete. The piece is 18 pages in total.
e-scripts had become more or less balanced: while a high degree of physically-scripted decoupling was present, the sonic unpredictability of layering these scripts had diminished as consistently-constructed e-scripts began to emerge. This was especially true of the embouchure pressure manipulations that I described above as a particularly confrontational type of p-script: as I became accustomed to this aspect, the relative physical positions became more distinct and discrete, and the reasonably large number of possible sonic outcomes had been gradually winnowed down to a smaller set of reliable and predictable ones (contingent, of course, on the staff-based material with which these overlays were associated).¹¹⁵ This, however, is not to say that Narratives had come to assume a consistent sonic state. The highest degree of decoupling remained in the larger formal p-scripts of the work in that many of the long-term processes of the piece were not yet fully articulated; in this sense, I did not yet have a full grasp on the broader discourses of the piece.

The ongoing stage of multiple performances since the premiere has seen my performance nexus for Narratives evolve. This evolution is especially clear in my growing familiarity and comfort with the larger formal elements, which markedly lowered the local level of parametrical decoupling between p-scripts relative to the earlier stages. Particularly strong evidence of this dynamic can be observed in the embouchure pressure scripts: whereas these overlaid techniques are typically meant to produce highly unpredictable sounds (oscillating bites overlaid over precarious multiphonics, for example), they have come to be quite cemented sonically in my performances. This is as much due to a conscious process as an unconscious one: it is almost inevitable that in the early stages of script interaction performers will search for recognized sounds

¹¹⁵ Whether or not this involved a subconscious selection process during practice—making these sounds not just predictable but also preferred in part because they were predictable—remains unclear: all I able able to say is that t-scripts and e-scripts had arrived at a point of relative balance and predictability insofar as these sounds were concerned.
and remembered experiences as a means of developing familiarity with a piece. Interestingly (but also disturbingly), this process has led to self-constructed values of correct and incorrect creeping into my subsequent performances based on my own history with the piece, despite the fact that the notation is prescriptive enough that one could argue that these values cannot truly be sustained.\textsuperscript{116}

As I indicated in the previous section, the dominant problem that emerges from this trend towards performance comfort is with maintaining the challenges posed by the local p-scripts and also the overarching work-concept of *Narratives*. This problem is as much predicated on preserving the original tension of the piece as it is on appreciating the growing contextual pressure and feedback loops of the performance nexus. (By this point, the feedback loops have become very rich through multiple rounds of coaching with the composer, deeper learning experiences on my part, and the growing performance history.) Given that this issue dominated much of my preparation for subsequent performances of *Narratives*, it generated a new type of p-script that, paradoxically, is not actively coded by the composer into the score but is intensely dependent on it. This is what I previously described as the work-concept acting as both script and contextual pressure in its own realization. The idealized stages of p-script interaction that I outlined in relation to stages 2 and 3 are defined by a balance between the deconstructive t-scripts and constructive e-scripts.\textsuperscript{117} This paradigm is to a great extent encoded in the score: while only suggesting complexity but not embodying it (cf. Section 3.2), the notation reflects a kind of utopia in which all encoded materials and their implicit relationships are fully-present and equally balanced. This

\textsuperscript{116}As a further reflection on this dynamic: if I were to hypothetically teach this piece to a student, would my ear and teaching gravitate towards specific sonic results of these interactions that I had cultivated over time?

\textsuperscript{117}Or, Eco’s idea of interpretation as negotiation: “a dialectic between openness and form, initiative on the part of the interpreter and contextual pressure” (Eco 1990, 21).
general state is a critical aspect of the complexist work concept which, as a p-script, then directs its own interpretation towards the enactment of these idealized inter-material relationships.

Similarly, the work concept also contextualizes the performance nexus in its suggestion of specific types of interactions between agents as mediated by p-scripts (i.e. the model reader present in Eco’s theory but largely subsumed into the performance nexus in my figuration of the complexist performance system in Figure 3.4). Therefore, a performance that falls into a (consciously or sub-consciously) pre-ordained set of interactions and sounds is in direct contravention of the work concept as its resultant p-script requires the performer to remain open to and embody the generally defamiliarized nature of complexist interaction during the stages of their relationship with a piece.

This situation necessarily raises the question of how the performer should go about maintaining the earlier idealized p-script interactions in opposition to the unconscious drift towards cohesion and comfort that develops over time. At the most basic level, it requires the performer to embrace a vigilant willingness to critique and dismantle the particular interpretive stances and methodologies they develop with the piece in order to constantly avoid inappropriate habits forming in rehearsal and performance. As a starting point, pianist Ian Pace has eloquently reflected on similar values and his evolving relationship with complexist musical performance:

"The aesthetic ideals I am aiming for resist the ‘organic’; rather, they stress discontinuity, tension between co-existing parts that are not necessarily made to blend seamlessly, and above all, defamiliarisation. These ideals and their concomitant strategies can easily turn into a fetish of their own, becoming mannered and indeed ‘familiar’, thus negating their original function. […] Interpretative strategies need to be continually re-examined when learning a new piece or re-learning an old one (Pace 2009, 191)."
Pace goes on to highlight another aspect of this overall process that I think is critically important: he draws on the nature of the complexist work-concept to actively shape the listening experience by setting up a specific mode of reception as well as a context through which to understand it. His approach is committed to actively pursuing the performance goals of “discontinuity [and] tension between co-existing parts” in order to prevent these works from being absorbed into the Adornian concept of the “culture industry” which—without engaging too deeply with this highly contentious topic—can be summarized as a means through which familiar and comfortable goods are produced and passive consumption is encouraged on the part of the audience/listener:

But at heart they represent a strategy of resistance in performance; resistance towards certain ideological assumptions that entail absorption of musical works into the culture industry. This absorption itself entails a harmonisation of the antinomic elements within such works, the smoothing out of such discontinuities as can produce psychological estrangement or simply cause fragmentations and incompleteness within the musical experience such as demands some active input from the listener if their listening experiences are to become coherent. If these are not papered over, then the musical work repudiates passive listening, much more so than when it is presented as an organic and hermetically-sealed whole. This type of musical aesthetic, whereby musical works exist in a critical and dialectical relationship to wider experiences and consciousness (and by implication to the world), is to my mind one of the most important ways in which music can become more than passive entertainment (191).

Pace’s approach to complexist performance practice resonates with aspects of Mahnkopf’s contextualizing of complexism within the second/reflexive modernism, as the latter also implicitly carries a skeptical stance towards manifestations of inherited traditions in contemporary culture. This dynamic necessarily extends beyond composition and performance practice into the realm of reception: the modes of consumption encouraged by the mainstream of contemporary media are,
to say the least, not in concordance with the basic interests of complexism. Without overstating the issue (or, in this case, overtly politicizing *Narratives* which may not have been composed with these ideals in mind), I think the emphasis placed on the sensation of multiple discursive threads within the work, and the avoidance of what Pace refers to as “an organic and hermetically-sealed whole” (in terms of reception), are absolutely critical values to achieve in performance. Emphasizing the multi-perspectivity and virtual nature of the complexist work actively requires the performer to embody, as suggested by the concept of multiple agency, the parametric decoupling implicit in the work’s conflicting p-scripts regardless of the level of comfort with the material. This dynamic will necessarily require the exploration and adoption of perhaps unusual stances towards the work in rehearsal and performance as well as an unwavering personal fidelity to the tensions of the material and also the sensation of the threshold. In this sense, the performance of a complexist work can relate in a very deep sense to many of the concerns of music emblematic of the second/reflexive modernism, not the least of which is a qualitatively rich performance experience.

Given the confrontation implied by this type of work-concept, the performer experiences a tension between two irreconcilable alternatives: aiming for a specific realization, or simply allowing the physical p-scripts to happen. In fact, this tension becomes highly worthwhile and a continually evolving means through which an experienced performer can test the limits of their abilities. Furthermore, this tension itself becomes a highly volatile type of p-script that challenges one’s personal disposition to aim for a specific sonic manifestation of a gesture or a perfect

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118 As I have previously mentioned, the dynamics of reception are a crucial facet to my topic, but cannot be fully explored in this context.
realization of the work. It will never allow us to achieve stability or perfection nor absolve us—despite the impulse to completely let go—of the responsibility to manifest its implicit complexities.

Returning to my own practice relative to *Narratives*, addressing this fundamental issue has required a shift in my own performance values away from the construction of consistent e-scripts that characterized the early stages of the learning process, and towards deliberately obfuscating or avoiding these scripts, in a sense. In my more recent performances of *Narratives*, I have pushed the level of physical confrontation towards the extremes of possibility so as to create palpable tension between comfort and the thresholds of my ability.

A major component of this process has been working towards Evanoff’s notated tempi, which he anticipates as being a type of p-script:

> The base tempo (eighth equals 85) sits at, and occasionally crosses over, the edge of performability, particularly in terms of the overlapping/interrupting rhythms. While that numerical value may be seen in practice as slightly negotiable, maintaining the overall sensation of speed and compaction that it suggests, even in the face of preserving the wealth of detail present, is absolutely crucial. This speed is itself a principle component of the music’s identity, as is the condition of risk and the potential for error it creates. Compromising this speed in order to more accurately realize other aspects of the work jeopardizes an essential, inherent quality of the composition (Evanoff 2014, i).

Approaching tempo as p-script has been an important component of my recent performances of *Narratives*: the goal of performing at the notated tempo has taken me several years and many hours of practice to achieve, and my most recent performances of *Narratives* have

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Importantly, this performance note further supports my contention that a complexist composer to a large extent encodes or anticipates the inter-agential relationships within the performance nexus rather than simply the performance text (cf. Section 3.4).

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been fully at-tempo (thereby shaving nearly 90 seconds off the length of the piece, compared with the premiere). Having now achieved this objective, however, I have had to develop other aspects of my relationship with the piece to maintain the more overtly confrontational aspects of the work-concept.

Below, I briefly outline two basic strategies—musical and conceptual—that I have used in my own practice. Taken together, these should not be considered recommendations or a guide but rather simply a way in which I have enacted the particular musico-ideological thoughts I have presented in this chapter. These example are, in some ways, two sides of the same coin. The first deals with the elaboration of greater nuance and detail in performance; a process that is directly linked to the development of generative e-scripts during the learning process. The second example is more conceptual in nature; in a drastic return to the original t-scripts of the learning process, the performer allows the open conflicts suggested by the notation to pull apart the physical and sonic gestures ingrained during their learning process. At their most fundamental level, however, both these strategies demonstrate a willingness on the part of the performer to actively disrupt their established p-script relationships in order to tease more detail and instability out of the score.
Figure 5.2. *Narratives*, m. 90.

Figure 5.2 is among the high points of difficulty in the piece in that it contains a wealth of detail and nuance within a very short span of time. The continued and progressive interpretive development of this passage (or others like it) must focus on increasing the resolution of nuance and specificity: assuming that all scripts have been basically and accurately learned, we can then turn to the fine gradations of musical specificity that Evanoff uses in his music. To take only one example, we can observe in his use of articulation—both when attached to notes or when overlaid above the staff—an interest in achieving very subtle gradations. These range between typically-notated articulatory techniques, unusual combinations, as well as some articulations that are presented in brackets, meaning that they are meant to sound as “more subtle versions of the articulation in question” (Evanoff 2014, i). Developing an ever-finer sense of where these articulations lie in relation to each other (i.e. a scale of articulatory nuance) as well as the precise
physical tongue-reed relationship are two types of ongoing processes that the performer can hone to achieve ever-subtler gradations of detail.

The articulation scripts suggested by Evanoff’s notation can easily and inadvertently stagnate into a relatively narrow range of possibilities. Many of them act as relatively conventional articulatory impulses (despite their unusual placement) that do not necessarily create unpredictable sonic results. Given this, the defamiliarization suggested by the articulation scripts is not physical but mental: achieving these extremely subtle gradations challenges the performer agent to remain vigilantly perceptive and disciplined. It is in this sense that the pursuit of detail will continue to act as p-script in the performer’s subsequent performances of the work.\(^{120}\) The process of discovering and enacting similar levels of detail and nuance can apply to virtually any other p-script in the piece individually or in tandem with one another. Therefore, the liminal capabilities of the performer at both the mental and physical level are extended; the process is analogous to increasing the resolution of a digital image, from a low-resolution version that provides a basic overview of the image but cannot display detail, to an extremely high-resolution image that reveals small details accurately.

However, this is only part of the equation. As this process relates primarily to the development of e-scripts, familiarity will again eventually and naturally begin to seep into a performer’s interpretation. Figure 5.3 shows a second example that will address some elements of this particular problem. Unlike the density of Figure 5.2, the expressivity of this passage emerges

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\(^{120}\) This is also an example of a t-script that has been generated by the performer in negotiation with the score despite not being discretely notated as such by the composer.
in longer sustained sonorities, unique combinations of quasi-unison singing and embouchure manipulations, and overlaid disruptive articulations.

Figure 5.3. *Narratives*, m. 169-170.

Compared to Figure 5.2, this passage is relatively simple to actualize. Given that there is generally less detail and the sonic events occurs at a slower rate of speed, its performance can quite easily devolve into a singular and consistent sonic identity. But, as I have discussed, resolving the divergent and complex p-script interactions prescriptively notated as separate parameters would be a betrayal of the basic work-concept of the piece. The performer must therefore avoid constructing a singular identity and must prioritize—and indeed emphasize—the basic physicality of the passage over a specific musical result. This practice entails making sure all the physical elements of the passage are given the full ability to articulate themselves *against* one another, rather than be subsumed into a coherent whole. To rephrase this idea using p-scripts, the performer must focus on prioritizing the t-scripts over the e-scripts, in an inversion of the learning process of the piece, and a challenge of their established performance norms.
Unlike the physical nuancing that we saw in Figure 5.2, the difficulty in this passage emerges from the need to overlay and sustain extreme physical states. I read the passage as being grouped into three basic actions. First, the staff-based material; the basic layer of coupled finger and breath information upon which other elements are constructed. Second, the sustained physical actions: the two instantiations of the OPEN and SING combination and the threshold BITE in between (indicated by the dashed lines). These embouchure positions transform relatively large swaths of the staff-based material but are somewhat passive in that they foster a certain physical state but not necessarily a drastic sonic result. Third, the overlaid articulations and oscillating bite (indicated with the slashed lines and BITE). These sudden gestures are the most indeterminate compared to the other layers in that their suddenness and violence will create very drastic and unpredictable sonic events.

By creating quasi-hierarchical groupings of the overlays as opposed to a singular reading of the passage, I am able to highlight the crucial aspects of their physicality and push these towards a physical extreme. I prioritize driving the embouchure positions into the realm of instability in order to allow the other overlays to affect the sonic outcomes of those particular physical states. For example, the two instantiations of OPEN and SING are drastic gestures that, paradoxically, can be underplayed to similar—but consistent—effect. Without taking an extreme position with these, the overlaid articulations and oscillating bite (indicated with the slashed lines and BITE) will not deliver on their implicit sonic and physical decoupling. The simultaneous action of these physical states and overlaid gestures is inherently sonically indeterminate: such a result is

\[121\] Yet another example of a performer-generated p-script that is not necessarily encoded by the composer. In this case, some level of mental coupling between parameters is not a means of simplifying the notation, but a way of emphasizing divergent physical states.
anticipated by the notation but easy to skip in practice, especially as passages begin to take on a familiar sonic form.

### 5.4 Conclusion

These types of self-reflexive and self-critical aspects of my artistic practice have been largely spurred by my collaboration with Evanoff. Our shared interest in pushing the liminal capabilities of the performing body, working towards new material territory, and discovering finer gradations from the areas that we have explored has created a powerful feedback loop that also affects the performance nexus of these pieces. In this sense, the “future history” of the system becomes a contextualizing pressure and generator of feedback loops. This concept would include our ongoing collaboration with newer works such as the miniature *Eine Kleines FC* (for live bass clarinetist and two pre-recorded bass clarinets), and the unfinished multi-media project *Full* (of which *Quieted* is one part). Both of these works have responded to some of the material and conceptual issues that emerged from *Narratives* in such a way that the older material and performance habits will necessarily be looked at in a new light. Furthermore, our own extensive correspondence about these pieces (both practical and abstract) has pushed my interpretation forward by introducing other conceptual elements that disrupt my previously-held personal views of the material and its interpretation.\(^{122}\)

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\(^{122}\) Another interesting point to consider is the effect of our collaboration on the composition of subsequent pieces, specifically, the way that the Evanoff’s compositional work is conditioned by my performances, rather than being autonomously a priori. For example, the embouchure placement material of *Quieted* (i.e. the circled numbers under the staff that I indicated in Figure 3.5) were introduced in order to disrupt the coalescing and stabilizing of the embouchure manipulations introduced in *Narratives*; similarly, finer levels of nuance and detail have been introduced into various parameters in response to greater familiarity with materials as well as the overcoming of associated challenges.
The overarching dynamics of constant critical reflection—as well as an explicit avoidance of stability—exist in stark contrast to more conventional formulations of interpretation and mastery. I see this as being a necessary product of our time; without emphasizing a progressive historicist reading of musical aesthetics, I strongly contend that recent musical developments (such as complexism) should be accompanied by new formulations of performance and reception. This is a natural process: as older structures crumble, the false dichotomies that they have fostered are dismantled and new formulations of performance practice, pedagogy, and reception are established.

My goal in performing complexist compositions is therefore always to reflect these values in interpretation and performance. The major philosophical aspects of complexism—informational superabundance; simultaneous but divergent material and physical strata; (Mahnkopf’s) “deconstructive” implications for the performer, their instrument, the performance situation, and so on—are all stances that necessarily require a constant confrontation not only with the musical material but my own ingrained priorities and interests. On a more fundamental level, complexism challenges us to critically examine our inherited traditions and encourages us to engage with a music that does not foreclose on interpretation or present overarching emotional narratives but instead explores numerous aspects of volatility in the performance nexus.
Chapter 6: Final conclusions and future work

I began this thesis with the epigram “The world is bound with secret knots,” drawn from the frontispiece of Athanasius Kircher’s 1667 volume *Magneticum Naturae Regnum*. In fact, there are many connections to be made between Kircher’s idiosyncratic brand of philosophic and scientific thought and my presentation of musical complexism. The connection is especially strong in my description of complexism as being a systemic phenomenon, rather than a material one. Kircher’s work, for example, traces the many interconnections he perceives between the physical and metaphysical domains within the Judeo-Christian creation and identifies ways in which individual components act as microcosms of the larger system: biological rhythms within and physiognomic components of the human body, for example, reflect elements as diverse as wind patterns, tides, the celestial relationships of moons, planets, and suns, as well as various metaphysical and theological elements. Crucially, this implies a high level of unification and singularity between planes and bodies, which are bound together by invisible threads and knots, and exert powerful influences on the next level of the system, in ever-rippling waves of action.

Similarly, in this thesis, I have de-emphasized specific material definitions in favour of presenting a broader systemic view of complexism. The salient issue I have identified through my work is the demonstration of how the major bodies within the system—the human agents of composer, performer, and audience, as well as the associated score and performance text agents—are intricately bound together in a network governed by complex multi-part connections. Complexity is manifested at the level of the system itself, and the component agents and their interactions are microcosms of the systemic dynamic. For example, relationships such as the volatile and at times chaotic one between performer and instrument reflects and is reflected in the
material and conceptual underpinnings of a complexist work; the apperceptive difficulties of
performance both foster and are influenced by the complexity of the performance situation.
Kircher’s “secret knots” therefore provide a particularly apt metaphor for the many threads of
musical discursivity that bind together the elements of the system. The analysis of a singular
musico-semantic element in a score, for example, would be incomplete without also theorizing
about the equivalent physical gesture by the performer, its perception by a listener, and the general
context that conditions all these elements and their interrelationships. Crucially, each secret knot
simultaneously involves multiple threads of informational presentation and feedback and therefore
cannot be reduced to a simple 1:1 ratio. It is this multiplicity that contributes to the system being
understood as complex, as opposed to merely complicated.

In support of this particular reading of complexism, I first situated the aesthetic within a
larger discourse that prioritized broader conceptual approaches and interests rather than material
elements as basic descriptors of the aesthetic. I suggested that complexist compositions tend to
describe the conflict of volatile materials in such a way that they are not reconciled in the score
and, correspondingly, that this dynamic is paralleled outside of the score itself: the relationships
between composer, score, performer, and audience as well as the performance act itself are all
complexified.

My formulation of performer agency emerged from this essential observation. Drawing on
the work of Paul Cilliers and Umberto Eco, I examined and theorized on specific ways in which a
dynamic complexist performance system is constituted by five major agents: composer, score,
performer, performance, and listener. The central aspect of my theory was the characterization of
the performer as embodying “multiple agencies” in performance. And in a fundamental sense,
these agencies act, both physically and virtually, as microcosms of the larger system. This idea
connects back to Cilliers’ idea that influences are communicated non-linearly across all levels of complex systems. Furthermore, it is a particularly important assertion because it draws together aspects of compositional and performative complexism that were previously considered separately.

In order to trace some of the connections—or secret knots, perhaps—between the major agents of the system, I theorized the presence of performance scripts (p-scripts) as being the basic language of inter-agential communication (as well as being an important element internal to the performer). Two primary categories of these were developed: first, from the negotiation or translation between the score and performer (t-scripts) and second, enactment scripts (e-scripts) that emerge from specific physical actions made by the performer during performance. However, these scripts generally do not represent a direct or singular flow of information, and there are no 1:1 mappings between the score and the performer, or the performer and the eventual performance text. Instead, p-scripts are contingent and variable mediations, and they participate in the complex threads and knots of discursivity between the score and the performance woven by the performer.

I then took the ideas of multiple agencies and p-scripts and examined two concrete aspects of their manifestation in complexist works for clarinet.123 First, I suggested various levels of performance scripts—from the material to the conceptual—that can coexist within a single work, noting how the performer engages with them during the process of rehearsal and the act of performance, and furthermore, how these elements can shape the context of a performance within the performance nexus. Second, I examined one of the many factors that contextualize and colour

123 As I indicated in the introduction, the use of clarinet repertoire should be understood to reflect only my own personal frame of reference rather for the fairly abstract purview of my thesis rather than a specific outcome of my theoretical arguments (or vice versa).
performance: the history of the system, in terms of a performer’s changing dynamic of interaction with the score. Of particular importance was tracing how the relationships between agents in the system change over multiple performances, and how over-familiarity can sometimes inadvertently negate critical aspects of the work-concept (i.e. the decoupling and defamiliarization suggested by the work and its materials). To avoid this danger, I posited a type of performance practice that deliberately undermines traditionally-inherited concepts of familiarity, control, and interpretive cohesion, by emphasizing a constant dynamic of self-reflexivity.

My thesis is therefore situated at a crucial intersection between several pre-existing streams of academic study. Going beyond pedagogical studies of specific works to offer deeper reflections on the nature of complexist performance, it allies itself with literature from the field of performance studies. And in considering the performance of an experimental musical practice, it aims to counterbalance the general scarcity of performance studies on the music of the last fifty years. It is my hope that aspects of my study might stimulate work across an even broader swath of contemporary music idioms. For example, my idea advancing the performance script as a specific type of discursive connection between score and performer could have ramifications in other repertoire: the relatively concrete scripts that engage specific physical mechanisms of sound creation somewhat self-evidently could be applied to a wide body of scores. More conceptual analyses could also be undertaken to examine the role of and engagement with musical histories—such as the pervasive invocation of other composers and musical topoi in György Kurtág’s work—and these could yield new thoughts on contemporary performance.124

124 This particular reading of Kurtág is a topic that I very briefly engaged with in an article I wrote for FOCI Arts/Words (Hockley 2016) that anticipated to some extent the subject and theoretical purview of this thesis.
Additionally, this thesis engages with much of the recent dialogue on complexist composition, and it has been my intention to contribute from the perspective of a performer, to date a severely underrepresented demographic in the published discourse. My theorization of the performance nexus—replete with agencies, texts, and scripts—aimed directly at engaging and complementing the composition-centric literature on complexism.

I have made several suggestions for future work throughout the body of my text and will summarize them briefly here. First, I have purposefully focused on the performance nexus and have omitted deep consideration of the process of composition as well as the act of listening/reception. (Correspondingly, I have simplified these areas on the diagrams of the complexist performance system I presented in Chapter 3.) Very specific study is required in order to understand how the underlying issues of musical complexism has affected these areas. The compositional side is well represented in extant publications, although these sources deal very often with more concrete considerations of musical materials. However, the listener’s reception of these pieces is a topic that has been rarely broached—but hopefully will be in the future.125

125 Two particularly compelling statements emerged in an interview between Brian Ferneyhough and Richard Toop that—I think—serve to illuminate an initial inroad into each of these agentially-based topics. First, in relation to the composer and their work: “I would say that one particular aspect of my work is that I construct myself through the work. I am what I am through having gone through the experience of writing the work, and in the same process, the ‘glasses’ which construct it for me enable me to see that person created (in so far as I produce another work after it)” [my emphases] (Ferneyhough 1995b, 250). The implication being that a high degree of interchange exists between composer and score during the act of composition; something which would necessarily colour the contextualizing performance nexus in that this early history of the system might be directly manifested in the score. Second, in reference to its reception: “The work itself is meant to create the scraping, raw edges, the frictions and lines of force which project themselves, labyrinth-like, out beyond the limits of the actual duration of the work, to infect or colour our perspectives of the way in which the world is perceived” (277). In brief, Ferneyhough is describing ways in which the act of listening or receiving the work as a listener is problematized (i.e. complexified) by the nature of the work and the system, suggesting that the traditionally-received bounds of a work in terms of its reception are no longer fixed, but highly contingent on the material of the work itself.
Furthermore, additional work could be done in regards to the other contextual issues that affect the performance of these works. I have only broached the topic of systemic history (an issue that itself has many more facets to explore), but have left other topics completely untouched, such as the different types of performer agents (composer-performers, for example), different instruments that suggest different approaches to physicality, the effect of long-term collaborations on the performance of works (suggested by my work in Chapter 5), specific types of notational images, and so on.

Similarly, some additional consideration of performance scripts could yield interesting results such as theorizing on some of the deeper and more conceptual p-script types and their engagement by the performer. I think that this is a particularly important topic given the way I have deemphasized any specific material definitions of complexism, and it is a topic that could establish interesting connections to other contemporary aesthetics and artistic practices.

Lastly, a deeper consideration of personal fidelity and authenticity in performance would nuance my discussions of the performer agent. This topic was initially intended to be part of the thesis but has been minimized in the interest of concision. Studies by Peter Kivy on various types of personal authenticity and Jane O’Dea on virtuosity and responsibility in performance, for instance, would offer stimulating background for exploring these topics in the intensive conditions of performing complexist music.¹²⁶

By way of a conclusion, I would like to offer one final thought on the metaphor of Kircher’s “secret knots” as it relates to the nature of complexist music. In addition to describing a deep level of inter-systemic connection, this metaphorical image also suggests how a complexist work

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positions itself within the broader artistic and societal context as “an evocation of the cognitive structures we have created for ourselves and with which we now struggle in an increasingly complex world” (Carl 1990, 47). The suggestion that we seek a larger or deeper connection through these works is not so much an attempt to associate some manner of transcendentalist action to complexist performance as a call for an active embrace of the precarious situation and vulnerabilities of performance itself. The knots that bind our interpretation to the increasingly virtual world requires us to acknowledge the depth of processes and histories that exist well outside our immediate engagement with a musical score.

Since a performance must be in real-time, it is necessarily incapable of anything more than suggesting the totality of the meanings and connections made possible by a work. As Ferneyhough (1995a) writes:

A work of music is not simply sound, but the sound itself is a cipher for something else which some people call expression but which I, of course, would prefer to differentiate a lot further, and in a lot of directions. A score as, let’s say, a visual representation of a possible sound—that’s just one aspect of what a score is. A score is also an entire cultural artefact with an aura of spiritual resonance which is completely its own, in spite of its being related to the sonorous experience of the work in one of its other manifestations. A work takes on these kaleidoscopic manifestations at the different times depending on what aspect of it one is examining, but the totality is far more that most people assume it to be (272).

Ferneyhough’s suggestion of the score as “cultural artefact” applies equally to performance, and therefore articulates an implicit challenge for performers to seek the secret knots of discursive connection and to use them to deepen their relationship to the work and the broader structures with which it engages.

With this dynamic in mind, our performances of complexist works will become sonic representations of our awareness of the real and virtual systems to which they are connected. We
acknowledge that the countless discursive threads—both internal and external to the work—are impossible to totally encompass within a single performance, despite a notational image that is highly suggestive of an attempt to do so. The immense fabric of multi-perspectival discursive threads therefore acts as both instigator and gatekeeper of powerful underlying dynamics: performance as negotiation, performance as translation, performance as enactment, performance as discursive thread—and secret knot.
Bibliography

1. Musical Scores


McCormack, Timothy. 2017. RAW MATTER. Unpublished manuscript.

Pàmies, Joan Arnau. 2015. …es kömmt drauf an, sie zu verändern.. Unpublished manuscript.

2. Text Sources


Appendices

Appendix A  Selected list of complexist repertoire for/involving clarinet.\textsuperscript{127}

A.1 Publisher abbreviations

(AMC) Australian Music Centre (ET) Editorial Tritó
(AV) Ariadne Verlag (MAP) Map Editions
(BH) Breitkopf & Härtel (MM) Musica mundana Musikverlag
(CR) Casa Ricordi (MP) Material Press
(CE) Composers Edition (MS) Un- or self-published manuscript
(CF) Carl Fischer (OUP) Oxford University Press
(CMCI) Contemporary Music Centre Ireland (SM) Schott Music
(CVS) Carus-Verlag Stuttgart (SME) Swiss Music Edition
(DEM) Durand Editions Musicales (SNY) Project Schott New York
(EG) Edition Gravis (SP) Smith Publications
(EHL) Edition Henri Lemoine (SV) Sikorski Verlag
(EM) Edition Modern (TM) Tre Media Musikverlag Karlsruhe
(MP) Material Press
(ESZ) Edizioni Suvini Zerboni (UMP) United Music Publishing

A.2 Unaccompanied works (including tape/video/live electronic components)

\textbf{Clarinet in E-flat}

\textbf{Clarinet in C}

\textbf{Clarinet in B-flat}

\textsuperscript{127} Complexist as broadly defined in the Introduction and Chapter 1. As I have described, it can be difficult to extricate complexism from a number of other musical concerns present within a single work; this repertoire list is therefore not intended to be exhaustive nor authoritative in that it does not seek to compartmentalize the included composers as musical complexists. Furthermore, it is also understood that this list will become obsolete within a short period of time. It is nonetheless valuable as a basic guide to the available repertoire for clarinetists interested in this aesthetic, as a resource upon which further inquiry and work may be based in the future, and as the broader context in which the specific studies in chapters 3 through 5 were conceived.
Cleare, Ann. *eyam i* (it takes an ocean not to) (+elec ad lib.), 2009-13 (CMCI).
Cox, Franklin. *If on a winter’s night…*, 1988 (SP).
_____. *Tiodhlac*, 2001 (DEM).
Harrison, Bryn. *Open 2*, 2001 (MS).
Isaacs, Ben. *I stumble, I err*, 2009 (MS).

**Clarinet in A**

**Bass clarinet**
Cassidy, Aaron. *Metallic Dust* (+elec), 1999 (MS).
Dahm, Robert. *i watched you as you disappeared*, 2005 (MS).
_____. *Quieted*, 2016 (MS).

**Contrabass clarinet**

**Other/multiple clarinet(s), works with variable instrumentation**

Dench, Chris. *the sadness of detail* (B-flat or A or C clarinet) [2 versions: 1) sequential or 2) intercut], 2002 (MS).

_____.*time* (basset clarinet or bcl), 1979 (UMP).


_____.*Ein Kleine FC* [2 versions: 1) solo bass clarinet and two pre-recorded bass clarinets; 2) three live bass clarinets], 2017 (MS).


_____.*Runnin’ Wild* (oboe or any size of saxophone or clarinet), 1978 (TM).

Johnson, Evan. *indolentia ars, a medium to be kept* (9-key ‘Stadler’ basset clarinet), 2015 (MS).

Mahnkopf, Claus-Steffen. *Die Schlangen der Medusa* [3 versions: 1) Ebcl/cl/bcl/cbcl (one player); 2) Bbcl (one player); 3) Ebcl/cl, bcl/cbcl (two players)], 1991 (SV).

Pàmies, Joan Arnau. *...es kömmt drauf an, sie zu verändern.* (Ebcl/Bbcl/Acl/bcl, elec), 2015 (MS).

A.3  **Solo clarinet plus ensemble**


_____.*Partikelgestöber* (solo Ccl [performing knospend-gespaltener], and mandola, tr, bass koto), 1992-97 (MS).

Cleare, Ann. *eyam ii (taking apart your universe)* (solo cbcl, ensemble), 2009-16 (CMCI).

_____.*eyam v (woven)* (solo cbfl, cbcl, orchestra), 2015-17 (CMCI).

_____.*to another of that other* (solo tpt, trb, bcl, orchestra), 2009-12 (CMCI).


_____.*Onbevooroordeeld Leven* (nine soloists [including cl], strings), 2002 (OUP).


A.4  **Selected small chamber works (2-6 players)**


_____.*Fragments after Cioran* (bfl, cl, perc, pf, vln, vlc), 2012 (MS).

_____.*Margin* (bcl, viola d’amore, acc), 2015 (MS).

_____.*NEW WORK* (vln, bcl, pno), 2019 (MS).

_____.*Two Surfaces* (afl, cl, perc, vln, vlc), 2013 (MS).

Barrett, Richard. *Another heavenly day* (Ebcl, elec gtr, cb, elec), 1989-90 (UMP).

_____.*Flechtwerk* (cl, pno), 2004-06 (UMP).

_____.*Hypnerotomachia* (2cl), 2005-09 (MS).
Lieder vom wasser (sop, bcl, cb, perc), 1989-90 (UMP).

pitch-black in sunlight (natural causes I) (lupophone, bhn, hn, tbn), 2016-17 (MS).

Temptation (asax/bsax/cbcl, tpt/pictpt/cor, vlc, synth, perc, elec), 1986 (MS).

ikiva (cl/bcl, tbn, vlc, pno, elec), 2016-17 (MS).

Trawl (fl, bcl, vln, vlc, pf), 1994-97 (UMP).

what remains (fl, bcl, pno), 1990-91 (UMP).

wound (vln, ob, cl, perc, gtr, perc), 2009-11 (MS).

Being itself a catastrophe, the diagram must not create a catastrophe (or, Third Study for Figures at the Base of a Crucifixion) (ob/musette/ehn, cl/Ebcl/bcl), 2007-09 (MS).

Self-Portrait, Three Times, Standing (bcl, tbn, pno, cb), 2018-19 (MS).

Cassidy, Aaron.


Dahm, Robert. imagines me into systems smeared along wires (bcl, perc), 2011 (MS).

...nailed, upstretched, to the floor... (bcl, vlc, pf, 3 improvisers adlib), 2009 (MS).

...the flesh is the grammar (cl, bsn, hn, tpt, tbn), 2009 (MS).

these are the numbers (cl, vlc, perc), 2007 (MS).

Czernowin, Chaya. Duo Leat (2bcl), 2009-10 (SM).

Sahaf (Drift) (alternate version for Eb/bcl, gtr, pf, perc), 2008 (SM).

Dench, Chris. 'atsiluth/shin (fl, bcl, pf), 1991 (MS).

blood music (cl, gtr, quarter-tone vib), 2005 (MS).

eigenmomenta (fl, cl, pf, perc, vln, vlc), 2000-01 (MS).

flux (fl, cl, pf, perc, vln, vlc), 2016 (MS).

funk (bcl or Eb contra-alto cl, perc), 1988-89 (UMP).

heterotic strings (fl, ehn, bcl, vln, cb), 1993 (MS).

light-strung sigils (fl, cl, pf, perc, vln, vlc), 2001-02 (MS).

polyme(t)ric threads (Ebcl, ssax), 2015 (MS).

sum over histories (bcl, cbcl), 2006 (MS).


Todesengel (cl, vib), 1996 (EP).


Durand, Joël-François. In the Mirror Land (fl, cl or cl, ob), 2003 (DEM).

Un feu distinct (fl/pic/afl, cl/bcl, pf, vln, vlc), 1991 (DEM).

Eckhardt, Jason. After Serra (fl/bfl, cl/bcl, vln, vlc, pf), 2000 (CF).

Aperture (fl, cl, vln, vla, vlc, pf), 2007 (CF).

A Glimpse Retraced (pf solo, fl/pic, cl, vln, vlc), 1999 (CF).

Rendition (bcl, pf), 2006 (CF).
Tongues (sop, fl/pic, cl/gtr, vla, perc), 2001 (CF).
Erber, James. Fax (2bcl, vla, vlc, pf), 1986-90 (MS).
____. Hieronimo and Bazardo in the Garden (2bcl), 2005-06, rev. 2010 (MS).
____. Landscape (with Laocoon and his Sons) (cl, tpt, perc), 2010-12 (MS).
____. Mox Nox (bcl, 2vln, vla, vlc), 2009 (MS).
____. The Ray and its Shadow (fl/afl, cl/bcl, vlc, pf), 1982-97 (MS).
____. working together (Ebcl/Cl, bcl/Ccl, tpt, vln, vlc), 1984 (MS)
Evanoff, Ray. All of the Inquiries I Can Offer Right Now (Ebcl/bcl, pf), 2011 (MS).
____. Diagram of a Little Less Than Everything (cl, vln), 2009 (MS).
____. Diagram of a Paired and Inseparable Pair (cl, vlc), 2009 (MS).
____. Notables (pic, Ebcl), 2013-14 (MS).
____. Polymathic Persona/Diagram of a Failure to Diversify (afl, cl, pf, vln, vlc), 2009 (MS).
____. une géométrie, I. figurations de mémoire (afl, ehn, cl/bcl, hn, bsn), 2005-07 (CVS).
____. In Nomine à 3 (pic, ob, cl), 2001 (EP).
____. Mort subite (picc, cl, pf, vib), 1990 (EP).
____. NEW WORK (cl, 2vln, vla, vlc), 2018 (EP).
____. Prometheus (fl, eh, cl/Ebcl, bsn, hn), 1965, rev. 67 (EP).
Finnissy, Michael. above earth’s shadow (vln, fl/pic, cl, vln, vla, vlc, cb), 1985 (UMP).
____. Banumbirr (fl, cl, pf, vln, vlc), 1982-86 (UMP).
____. Beuk o’Newcassle Songs (sop, cl, pf), 1988 (OUP).
____. Blancmange (cl, gtr, phono-fiddle, pf), 2003 (MS).
____. Botany Bay (mezzo, fl, cl), 1983-89 (CE).
____. Clarinet Sonata (cl, pf), 2007 (TM).
____. Clarinetten-Liederkreis (cl, 2vln, vla, vlc), 2016 (MS).
____. Contretänze (fl, ob, cl, perc, vln, vlc), 1985-86 (UMP).
____. Diamond Suburbia (afl, cl, vln, hp, pf), 2003 (MS).
____. Different Things (4cl), 1996 (OUP).
____. D’Woaldbuama (cl, vln, vlc, cb, pf, perc), 2001 (MS).
____. East London Heys (Pieces 1,2,5&8) (WW quintet), 1985-86 (UMP).
____. Einfältiger-Liederkreis (cl, pf), 2016 (MS).
____. En krybbe er hans første eie (sop, cl, g, vlc, pf, perc), 2009 (MS).
____. Giant Abstract Samba (cl, vln, vlc, pf, perc), 2002 (MS).
____. Goro (ten, cl, pf, vln, vlc, vla), 1978 (UE).
____. Greatest Hits of All Time (solo oboe, pic, cl, pf, perc, vla, vlc, cb), 2003 (OUP).
____. Judgement in that day (solo, cl, vln, vla, vlc, pf), 2000 (MS).
____. Kann Liebe weig bestehen? (afl, bcl, tbn, vln, vlc, pf), 2003 (MS).
____. Kritik der Urteilskraft (fl, cl, vln, vlc, pf), 2001 (OUP).
____. L’Herbe (cl, g, quarter-tone vib, nude actor), 2004 (MS).
____. Lord Melbourne (sop, cl, pf), 1980 (UE).
Lost Lands (Eb, ssax, pf, gtr, vln), 1977 (EM).
Marilyn, Brian, Mike and the cats (cl, pf, elec), 2004 (MS).
Nowhere else to go (cl, tpt, perc, synth, vlc, tape, elec), 1989 (OUP).
Recent Britain (cl, bsn, vlc, pf, tape), 1997-98 (OUP).
Regen beschreiben (afl, cl, vln, vlc, pf), 2001 (MS).
Sefauchi`s Return (fl, ob, cl, pf), 1994 (OUP).
Scotch Tape (cl, vlc, pf), 2006 (MS).
Sir Tristran (sop, cl, pf, vln, vla, vlc), 1978 (UE).
Song 11 (sop, cl), 1969-71 (CE).
Springtime (fl, cl, vln, vlc, pf), 2003 (MS).
That ain`t Shit (cl, vln, pf, perc), 2004 (MS).
Tussen Rede en Gevoel (2bcl, vln, db), 2018 (MS).
Transformations of the vampire (cl, perc, vln, vla), 1968-1971 (UE).
Various Nations (speaker, fl, cl, hn, perc, gtr, vln, vlc), 1992 (OUP).
WAM (fl, bcl, pf), 1990-91 (OUP).
Warara (sop, fl, cl, perc, vln, vlc), 1982-91 (OUP).
Young Brethren (cl, bcl, vln, vlc, pf, perc), 2005 (MS).

Greenwald, Andrew. [66 Words] (2cl), 2014 (MS).
A Thing is a Hole in a Thing it is Not III (fl/pic/bfl, bcl, vlc, pf, perc), 2013 (EG).
On Structure IIA (cl, vln, vlc), 2010 (MS).
Hames, Richard David. Djurunga (bcl, perc), 1985 (AMC).
Harrison, Bryn. a leaf falls on loneliness (cl, mezzo, pf, vln, vlc), 2007 (MS).
Four Parts to Centre (cl, egtr, vla, vlc), 2002 (MS).
Linden quartet (cl, pf, egtr, perc), 2006 (MS).
...of shadow and light (fl/pic/afl, cl/bcl, 2vln, vla, vlc), 1998 (MS).
Rise (cl, pf, vln, vlc), 2003 (MS).
Hoban, Wieland. Doppelte Wahrheit (bcl, tbn, perc, vlc), 2002 (MAP).
The Very Image (fl, cl, pf, vln, vlc), 2001 (MAP).
Hübner, Klaus K. Drei Volksliedbearbeitungen (mezzo, cl, zither), 1978 (MM).
Ohne Titel (afl, octocontrabasscl, vln, vlc, pf, perc, tape), 2000 (MM).
skiEros (fl, oda, bcl, bsn, hn), 1985-86 (BH).
Iddon, Martin. crinaeae (fl, bcl, pf, perc, vln, vlc), 2015 (CE).
eleionomae (fl, bcl, vln, vlc, pf), 2012 (CE).
pneuma.kharis (bcl, baritone, tpt, tbn), 2013 (CE).
tu as navré (bcl, cbcl, vlc, cb), 2010 (MS).
Isaacs, Ben. allone (cl, vlc, pf), 2009 (MS).
Peel (cl, pf), 2008 (MS).
Johnson, Evan. à un quart de voix (ob, Ebcl, vlc), 2010 (MS).
Apostrophe I (All communication is a form of complaint) (2bcl), 2008 (MS).
Ausschnitte (bcl, vln, pf), 2003 (MS).
In nomines (1-4), surrogates, limbs, etc. (cl, vln, vla, vcl), 2018 (MS).
my pouert and goyng ouer (baritone, bcl, tpt, tbn), 2014 (MS).
Karski, Dominik. Fragile (2cl), 2008 (MS).
Inward (pic, bcl, pno), 2004 (MS).
Oscillations of Presence (bcl, cbcl), 2002 (MS).
___. _Pre-seed_ (pic/fl/afl/bfl, cl, vln, pno, perc), 2009 (MS).
Lim, Liza. _The Heart’s Ear_ (fl, cl, string quartet), 1997 (CR).
___. _Inguz (Fertility)_ (cl, vlc), 1996 (CR).
___. _The turning dance of the bee_ (afl, bcl, pno, perc, vln, vlc), 2015-16 (CR).
Mahnkopf, Claus-Steffen. _Bläsertrio_ (afl/bfl, oda/ehn, bsthn/bcl), 1996 (SV).
___. _D’ avance_ (pf, cl, tbn, vlc), 1996-97 (SV).
___. _Hommage à Daniel Libeskind, Vol. III_ (fl/pic/bfl, ob/ehn, cl/bcl, vln, vla, vlc), 2010-12 (SV).
McCormack, Timothy. _Apparatus_ (bcl, vlc, pno), 2009 (MS).
___. _DISFIX_ (bcl, ptpt, tbn), 2008 (MS).
___. _KILN I_ (cbcl, tbn, perc), 2014 (MS).
___. _KILN II_ (bcl, cb, perc), 2013-14 (MS).
___. _MIRROR STRATUM_ (cbcl, vlc), 2011 (MS).
___. _NOUS-APPARATUS_ (pic, bcl, tbn, perc, vln, vlc), 2012 (MS).
Morishita, Chikako. _House of the sleeping beauties_ (bfl/pic, bcl, gtr, acc, perc), 2012 (MS).
___. _Lizard_ (cl, vla, koto), 2010-11 (MS).
___. _Lizard (shadow & light)_ (cl, tpt, tbn), 2011 (MS).
___. _Miniature (double)_ (cbcl, db), 2012 (MS).
___. _One Arm 3_ (afl, bcl, vln, vlc, pf), 2016 (MS).
___. _Skin, Gelatin, Soot II_ (2bcl), 2016 (MS).
Pàmies, Joan Arnau. _[IVflbclVIvln/c]_ (fl, bcl, vln, vlc), 2012 (MS).
___. _[VIsi-kIIXvlc]_ (Ebcl, vlc), 2012 (MS).
___. _per ser plagat de ta dolça ferida_ (baritone, bcl, tpt, tbn), 2013-14 (MS).
___. _Produktionsmittel III_ (4cl), 2015-16 (MS).
Parra, Hector. _Andante Sospeso_ (cl, pf), 2003-04 (ET).
___. _Cell 2_ (fl, cl, perc, pf), 2016 (ET).
___. _Love to Recherche_ (fl/bcl, perc, vln, vla, vlc), 2010 (ET).
___. _Pulsions_ (fl, ob, cl, vln, vla, vlc, pf), 2000 (ET).
Pauly, Mauricio. _Clinamen clinamen clinamen_ (cl, string quartet), 2008-10 (MS).
___. _Con tentáculos. No patente pero subpatente_ (cl, pf, perc, gtr, vlc), 2010 (MS).
___. _Fold explain fold leave_ (fl, cl, gtr, vln, vla, vlc, cb, pf), 2012 (MS).
___. _Great concavity great convexity_ (cl, vln, vlc, perc), 2012 (MS).
Redgate, Roger. _Celan songs_ (sop, fl, cl, vln, vla, vlc, cb, pf), 1994 (EHL).
___. _Eos_ (cl, pf), 1984 (EHL).
___. _Pierrot on the Stage of Desire_ (fl, cl, vln, vlc, perc, pf), 1998 (EHL).
___. _Tehom_ (bcl, tbn, vlc), 2010 (UMP).
Sergeant, Matthew. _bet golgotha_ (5+ players), 2015 (MS).
___. _somebody threw a dead dog after him down the ravine_ (cl, pf), 2009 (MS).
A.5  Selected large chamber/ensemble works (7+ players)

Alvarez, Pedro. Interalia (ensemble), 2010 (MS).
____. Plasmares (octet), 2014 (MS).

____. Andromakhe (septet), 2005-11 (UMP).
____. The Empire of Lights (nonet), 2000-2001 (UMP).
____. Essay in Radiance (octet), 1981-83 (UMP).
____. Hekabe-alpha (septet), 2005-11 (MS).
____. heliocentric (ensemble), 2005-11 (MS).
____. Kassandra (septet), 2005-11 (MS).
____. Illuminer le temps (octet), 1984-2005 (UMP).
____. Opening of the Mouth (ensemble), 1992-97 (UMP).
____. ruin (ensemble), 1985-95 (UMP).
____. stirrings (nonet), 1999-2001 (UMP).
____. wake (nonet), 2015-15 (UMP).

Biró, Dániel Péter. Simanim (Signs/Traces) (ensemble), 2007 (MP).

Cassidy, Aaron. A way of making ghosts (ensemble), 2020 (MS).
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