Searching for Sounds: Instrumental Agency and Modularity in Electroacoustic Improvisation

Stephen (Red) Wierenga

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Searching for Sounds:
Instrumental Agency and Modularity in Electroacoustic Improvisation

by

Stephen (Red) Wierenga

A dissertation submitted to the Graduate Faculty in Music in partial fulfillment of the requirements for the degree Doctor of Philosophy, The City University of New York.

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Stephen (Red) Wierenga

This manuscript has been read and accepted by the Graduate Faculty in Music to satisfy the dissertation requirement for the degree of Doctor of Philosophy.

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THE CITY UNIVERSITY OF NEW YORK
Abstract

SEARCHING FOR SOUNDS:
INSTRUMENTAL AGENCY AND MODULARITY IN ELECTROACOUSTIC
IMPROVISATION

by

STEPHEN (RED) WIERENGA

Advisor: Professor David Grubbs

In their radical departure from conventional instrumental technique and standardized instruments themselves, the practices of electroacoustic improvisation present a particular challenge to prevalent Western concepts of musical instruments. These concepts—which generally treat instruments as fixed objects—are ill-equipped to account for the ways in which electroacoustic improvisers foreground the agency of their instruments and abandon the quest for “mastery” typical especially of classical attitudes. Additionally, electroacoustic improvisers often approach instruments not as singular, self-contained, and static in their materiality, but rather as modular instrumentaria capable of myriad states and ever in flux, similarly problematizing conventional conceptions that view the physical constitutions of instruments as static and circumscribed.

After considering common concepts of musical instruments, presenting apparent failures of these concepts, and arguing for the necessity of a new organology, I introduce the practices of electroacoustic improvisation, situating their emergence in Group Ongaku (formed in Tokyo in 1958) and AMM (formed in London in 1965). Drawing from the writings and interviews of the musicians of these groups, I suggest several significant attributes of electroacoustic improvisation, including the formative influence of electronics, the incorporation of free
improvisation, the tendency toward a composite group sound and away from featured soloists, and especially the ways in which electroacoustic improvisers cultivate instrumental agency and modularity. After tracing connections between the development of these practices and their flourishing in the work of subsequent generations of improvisers in Berlin, Boston, London, Tokyo, Vienna, and elsewhere, I examine how these practices reveal themselves in performances by contemporary electroacoustic improvisers, paying particular attention to the dynamic relationships performers exhibit with their instrumentaria. At the heart of this study are in-depth analyses of three performances: first, a performance by the longtime duo of Otomo Yoshihide and Sachiko M; next, a first-time collaboration between Olivia Block and Maria Chavez; and finally, a performance by AMM celebrating their fiftieth anniversary. In presenting these analyses, I attempt to focus attention on a significant movement in contemporary creative musical practices and suggest ways in which these practices may be understood. I furthermore propose concepts of musical instruments suitable for addressing the ways in which these musicians use them but that can also be applied to uses of instruments in diverse situations. I argue that, although electroacoustic improvisers foreground instrumental agency and modularity, these aspects always already exist in myriad contexts.
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My parents have inspired and encouraged me in more ways than can be enumerated.

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Chapter One
Introduction

The present work examines the nature and uses of musical instruments in the context of electroacoustic improvised music. Electroacoustic improvisation, which may count the 1950s Japanese ensemble Group Ongaku among its earliest practitioners, gained influence as a significant and distinct approach to music-making with England’s AMM, formed in 1965. In particular, as practiced by AMM, this approach is marked by an absence of repertoire in favor of free improvisation; an inclusion of so-called “informal sound” (contrasted with conventionally accepted “musical” sounds); the tendency toward a layered group sound and away from soloists; the use of modified or prepared instruments and extended techniques; and the use of the radio and everyday objects through bricolage, often amplified to high levels via contact microphones. The practice of electroacoustic improvisation developed more rapidly in the 1990s with more widespread availability both of influential recordings and inexpensive electronics including laptops, and the growth of networks to support it. Having birthed burgeoning scenes in such disparate locales as Berlin (where it has been called “Berlin reductionism” and *Echtzeitmusik*), London (“The New London Silence”), and Tokyo (*onyô*), among other places, it is a historically situated, transnational development of practices, now fully mature—if such a description does not contradict its practices, which seek to foreground the continual discovery of new sounds and relationships.

Keith Rowe, who performs on tabletop guitar and radio, illustrates both the germinal phase of electroacoustic improvisation and its latter-day incarnations, having co-founded AMM and more recently performed with numerous improvisers of the younger generation, including
Toshimaru Nakamura, Sachiko M, and Christian Fennesz. Additionally, his radical departure from traditional instrumental technique and his adoption of the radio and other *objets trouvés* qua musical instruments are representative of a significant tendency in electroacoustic improvisation: the embrace of instrumental agency and modular instrumentaria. As such, he is a central figure in this work, appearing in significant roles both in Chapter Three, “The Emergence of the Practice of Electroacoustic Improvisation: Group Ongaku and AMM,” and in Chapter Six, “AMM at the Huddersfield Contemporary Music Festival, November 29, 2015.”

Instrumental agency and modularity both sharply contrast with traditional approaches that treat instruments as fixed: in such conventional approaches, instruments are designed and built to be more or less static and to therefore respond consistently, and performers thus train to provide as consistent input as possible. In contrast, many performers of electroacoustic improvisation leverage instrumental agency and modularity even when playing traditional acoustic instruments like the piano, by using preparations and embracing subtle quirks of the actions of different pianos, as AMM’s John Tilbury does, for example.

The leveraging of instrumental agency and modularity often accompany an attenuation of the performer’s control over the instrument, another significant aspect manifest in the performance practices of many electroacoustic improvisers. Whereas composer and writer Curtis Roads suggests that a key to successful improvised performances is in “virtuosity, a combination of talent plus rigorous practice,”¹ the practices of electroacoustic improvisation as described in the present work problematize the very notion of virtuosity. Rowe, for example, deliberately attempts to remove the craft elements from his work, noting that he does not practice the guitar nor has he for many years, insinuating that by practicing technique one runs

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the risk of cheapening one’s relationship with one’s instrument.\textsuperscript{2} This apparently anti-virtuosic stance differs strongly from traditional Western values, but while electroacoustic improvisation represents a type of limit case, it highlights characteristics of musical instruments that are too often ignored in common conceptions of musical instruments, regardless of genre or practice. First, instruments are not necessarily fixed or finished at the time of manufacture, but are remade in their use. Second and relatedly, musical instruments are always to some extent inseparable from performance technique. Third, agency is always distributed; even when a virtuoso is said to have mastery of the instrument, the instrument itself makes a difference and therefore has a modicum of agency. Finally, musical instruments exist not solely in single isolated objects but in connections between parts; thus, when considering a violin—and in addition to considering the performer’s relationship with this violin—one should also consider the performer’s bow, the violin’s strings, and so forth.

Despite the artistic significance and influence of electroacoustic improvisation, in-depth analyses remain scant, and while the uses of new techniques and instruments are crucial to much of this musical practice, they deserve greater critical attention than they have so far received. To both these ends, then, the present work analyzes several performances of electroacoustic improvisation in detail, paying particular attention to the roles of musical instruments and the ways in which the performers use them. In so doing, not only do I suggest profitable ways of analyzing music often considered inscrutable, but by observing and studying novel approaches to musical instruments I propose ways that these approaches may be included in a more general concept of musical instruments, one equipped to address situations of instruments in myriad genres, styles, and practices. The main task at hand is thus two-fold and

interrelated: to study engagements with instruments and in so doing to identify crucial aspects about the practices of electroacoustic improvisation, and in turn to examine these practices to discover significant things about concepts of musical instruments in general. This work contributes to the field of organology primarily by drawing empirically from a close study of human-instrument encounters within a distinctive contemporary network of practices, thereby revealing crucial aspects of instrumentality: agency and modularity.

**Review of Literature**

Several improviser-writers have discussed to various extents both electroacoustic improvisation in general and the role of musical instruments therein. Derek Bailey, in his pioneering study, *Improvisation: Its Nature and Practice in Music*, although not limiting his discussion to electroacoustic improvisation, describes two main attitudes to musical instruments in free improvisation, the “pro-instrument” and “anti-instrument” approaches.\(^3\) Similarly, in his article “Ephemera Underscored: Writing around Free Improvisation,” John Corbett suggests grouping free improvisers into those who “marginalize the instrument” and those who “instrumentalize the margins.”\(^4\) While these theories are helpful, both dichotomies are ultimately not without problems, and it is thus worth pursuing another, more nuanced approach to understanding musical instruments in free improvisation and electroacoustic improvisation in particular.

We are fortunate that many performers of electroacoustic improvisation have written extensively and given insightful interviews. Cornelius Cardew, the late composer and highly

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influential former member of AMM, pithily summarized some of the ways in which AMM’s musicking significantly departed from the Western classical tradition in his essay “Towards an Ethic of Improvisation,” published in 1971 as part of Treatise Handbook. He incisively suggested that, “We [AMM] are searching for sounds and for the responses that attach to them, rather than thinking them up, preparing them and producing them. The search is conducted in the medium of sound and the musician himself is at the heart of the experiment.” Cardew also noted the eschewal of virtuosity and soloists in favor of a composite group sound, the electronic augmentation of traditional instruments, the invention of new instruments, and the use of contact microphones to amplify diverse materials. John Tilbury, a musical associate of Cardew’s and a later member of AMM, further reflected on the early history of AMM and its break with traditional approaches to performance in his biography of Cardew, Cornelius Cardew (1936–1981): A Life Unfinished.

Eddie Prévost has written several books among other writings, including No Sound Is Innocent and Minute Particulars, which describe his view on issues of musical aesthetics and ethics and which occasionally address instrumentality and technique. Keith Rowe has given numerous extensive interviews describing the artistic concerns that led him to alter his guitar technique and incorporate the radio into his performance practice. He has also written directly about his use of the radio in his essay “Above and Beyond.”

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6 Ibid.
9 Edwin Prévost, Minute Particulars (Harlow, Essex: Copula, 2004).
11 Keith Rowe, “Above and Beyond,” Resonance 5, no. 2 (2007).
Many younger Japanese improvisers, including Sachiko M, Otomo Yoshihide, and Toshimaru Nakamura, have given numerous interviews and been the subject of several ethnographies. The present work quotes from these and many other similar sources in seeking to identify salient characteristics of the practices of electroacoustic improvisers, particularly regarding their encounters with instruments.

Within the past few years, several performers of electroacoustic improvisation have written substantial works on the field, including four doctoral dissertations: Michael Bullock’s “The Kind of Music We Play: A Study of Self-Idiomatic Improvised Music and Musicians in Boston,” Per Anders Nilsson’s “A Field of Possibilities,” Sebastian Lexer’s “Live Electronics In Live Performance: A Performance Practice Emerging from the piano+ Used in Free Improvisation,” and Matthieu Saladin’s, published as Esthétique de l’improvisation libre. Saladin examines relevant aesthetic issues by exploring the histories of three groundbreaking groups of European free improvisation: Spontaneous Music Ensemble (SME), Musica Elettronica Viva (MEV), and AMM, noting some of the ways in which AMM in particular challenged traditional musical aesthetics through its diversity of sound sources and high amplification alongside the use both of long tones and silences, all of which contributed to the

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disintegration of the cause-effect relationship of gestures and sounds, as well as to the non-
identification of sound sources and the acousmatic situation, described by pioneering electronic
musician and theorist Pierre Schaeffer as a situation in which one hears a sound but does not see
its source. Nilsson argues for a concept of musical performance in general and improvisation in
particular as forms of play, like games, and thoroughly describes his engagement with his self-
built instruments in both “design time” and “play time,” noting the mutual relationship between
both practices. In addition, Nilsson spends considerable time discussing concepts of musical
instruments, and he invokes both Schaeffer and the French phenomenological philosopher
Maurice Merleau-Ponty to ground his framing of modules as “intentional objects” within the
“horizon” of his hyper-instrument. Bullock’s ethnography chronicles The BSC, the Boston-based
improvisation ensemble to which he belongs, and among other things highlights the group’s
approach to instrumentality, one characterized by material contingency. He also includes short
prose and graphical analyses of performances of electroacoustic improvisation in which he
participated, among the few such analyses of electroacoustic improvisation. Lexer, who
maintains close connections to the aesthetics of AMM as a student of John Tilbury’s and a
participant in Eddie Prévost’s improvisation workshops, devotes chapters to live electronics and
free improvisation, and then describes in great detail his own instrument—“piano+”—which
comprises a grand piano, extended techniques, preparations, manipulations inside the piano,
microphones, software-based digital signal processing, “direct” gestural control of electronic
processes, “indirect” control of electronic processes via audio analysis and sensor readings, and
amplification. The piano+ clearly problematizes traditional concepts of musical instruments,
including as it does not just a traditional musical instrument but specific playing techniques,
objects used as preparations, sensors, and processing relying in part on decisions made by the
software in the course of performance. Additionally, as a “new” instrument used primarily by its inventor, it encodes many of Lexer’s musical and aesthetic assumptions, many of which are shared by other practitioners of free improvisation. Finally, it suggests ways of understanding instrumentality that concentrate not on one physical object but on the connections between many diverse agents, including human performer, sound-producing objects, software, and amplification; this point in particular, while implicit within the piano+ itself, deserves further explication, especially as it has many aspects in common with the instruments of other free improvisers.

Other participants in Prévost’s improvisation workshops have also recently written dissertations. Peter Johnston’s “Fields of Production and Streams of Consciousness: Negotiating the Musical and Social Practices of Improvised Music” is an ethnography that specifically studies the practices of the workshops from 2006 to 2007.17 Seymour Wright’s is self-descriptively titled, “AMM and the Development of Free Improvisation as a Musical Practice.”18

Numerous observers of electroacoustic improvisation—both participant and not—have contributed to two noteworthy compendia, each documenting the musical and social practices of two distinct local scenes of improvised music. Echtzeitmusik Berlin19 describes the free improvisation scene in Berlin and includes contributions from performers such as Andrea Neumann, who tellingly calls her Innenklavier (“inside-piano”) not an instrument but an instrumentarium, and who illustrates the problematic nature of notation by attempting to notate

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the production of one particular sound on the *Innenklavier*. Similarly, The BSC’s *Manual* documents the history and aesthetic issues surrounding the Boston-based group.

Georgina Born has written several articles touching on points related to instrumentality and electroacoustic improvisation, including “On Musical Mediation: Ontology, Technology and Creativity” and “Digital Music, Relational Ontologies and Social Forms.” In the latter article, for instance, Born suggests that although she considers Actor-Network Theory (ANT) problematic, it can be profitably applied to analyze George Lewis’s Voyager, an improvising computer program that interacts with live improvising (human) performers.

Despite these works, many of which are indubitably important, there remains a dearth of analyses of electroacoustic improvised performance as well as studies foregrounding the instrumental roles therein and relating these roles to broader concepts of musical instruments. This work seeks to contribute significantly to these areas.

**Organization**

In Chapter Two, I examine colloquial ideas and common concepts about musical instruments, noting that despite ambiguities and inconsistencies within these ideas, in the West musical instruments are often treated as “fixed, static objects.” I present a few counterexamples to this characterization, suggesting that instruments are dynamic and have subjective qualities of

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agency. These counterexamples argue for the necessity of new organology, an emerging trend in the study of musical instruments that seeks to deepen our understanding of musical instruments, their physical constitutions, the ways in which they relate to their users and each other, and the uses to which they are put. In outlining some characteristics of new organology, I note that such an attitude prioritizes the study of human-instrument encounters, lobbying for the kind of approach I take in the analyses.

Chapter Three outlines notable characteristics of the practice of electroacoustic improvisation, tracing its emergence in the work of Group Ongaku (as well as the later and closely related Taj Mahal Travellers) and AMM. Through the words of the musicians associated with these ensembles, the chapter traces the often radical ways in which electroacoustic improvisers conceive of and use their instruments, frequently foregrounding modularity and instrumental agency. The chapter concludes with noting how these characteristics likewise take a prominent place in the discourse of younger generations of improvisers.

Chapters Four through Six examine how these characterizations reveal themselves in actual practice, by studying three performances by electroacoustic improvisers: one by the longtime Japanese duo of Otomo Yoshihide and Sachiko M (Chapter Four), one of a first-time collaboration by American Olivia Block and Peruvian-born American Maria Chavez (Chapter Five), and finally one by AMM, celebrating the group’s fiftieth anniversary (Chapter Six). These analyses attempt to situate the performances in their unique spatiotemporal contexts while suggesting that they are not necessarily works in the traditional sense but are part of ongoing processes of musicking, of engagements improvisers have with each other and—of particular relevance here—with their instruments. Included in the analyses are detailed descriptions—both prose and visual—of the improvisers’ instrumentaria, illustrating among other things the ways in
which their modularity and agency are highlighted in performance.

Finally, Chapter Seven summarizes my findings, reflects on the three analyses, and argues for a broadened notion of musical instruments that accounts for the conceptions and uses of instruments by electroacoustic improvisers yet still profitably applies in diverse contexts.
Chapter Two

From Fixed Object to Dynamic Agent:

On Changing Concepts of Musical Instruments

What do we colloquially consider musical instruments to be? What does one convey, for example, when making the statement, “I play the guitar”? The use of the definite article “the” implies that there is one general concept or archetype of “guitar.” Even without the definite article, the statement “I play guitar” avoids specificity in favor of a common idea of guitarness; contrast this with, for example, “I play a guitar,” or “I play my guitar.” Perhaps more common than these statements is the use of an adjective to indicate a genre, thereby not only conveying aspects of the instrument’s physical constitution but also a set of techniques and stylistic concerns. For example, the statement “I play classical guitar” suggests particular qualities about an instrument’s physical constitution: that it is acoustic, made of thin, lightweight wood with a central resonant cavity, and has nylon strings, for instance. But it also conveys aspects of playing technique: it suggests, for example, that the strings are usually sounded with the fingernails of the right hand, the neck of the guitar is typically positioned at an ascending angle with the body of the guitar resting on the performer’s left knee, the performer may use a footstool under one’s left foot to facilitate this position, and so forth. Finally, the statement calls to mind a set of repertoire, including common classical guitar pieces like Rodrigo’s Concierto de Aranjuez or J. S. Bach’s lute suites transcribed for guitar. Contrast that expression with the phrase, “I play heavy metal guitar.” This statement immediately suggests a different material constitution: specifically, a solid-body electric guitar (which might have more than the usual six strings, possibly seven or eight), outfitted with distortion pedals and an amplifier capable of overdrive. In
turn, both the guitar’s physical design and the compression resulting from distortion contribute to lengthy sustain which in turn informs playing styles and vice versa. Also implicit are technical considerations; for instance, the guitar is likely played with a pick, already problematizing a clear distinction between instrument and technique. Finally, playing styles likely include copious low-range open fifths and similar “power chords,” virtuosic solos, and so forth. In his book *Running with the Devil: Power, Gender, and Madness in Heavy Metal Music*, Robert Walser writes about these and other stylistic elements, arguing that they have redefined the guitar as a musical instrument.24 Citing this example, Paul Théberge asserts that “it is primarily through their *use* that technologies become musical instruments, not through their form.”25 This statement certainly agrees with Pierre Schaeffer’s writings on the birth of musical instruments through *bricolage*. Schaeffer suggests that the tool and the musical instrument were likely initially one and the same physical object. He writes, “We are willing to bet that in reality there was no difference, and the same gourd was used equally for soup and music.”26 However, use and form are intertwined in a reciprocal chain of influence. The use of long sustain in heavy metal guitar performance, for example, is afforded both by distortion pedals and the solid-body guitar’s form, which is in turn often designed and constructed specifically to enhance sustain. Players that furthermore absorb playing characteristics of other instruments also demonstrate this enmeshment of use and form. For instance, the use of sustain and compression on guitar and playing high, virtuosic arpeggios both show the influence of violin technique; the eBow, through its affordance of gradual attacks and long sustain, likewise shows the influence of violin

technique. These new playing characteristics again problematize clear distinctions between use and form and become part of what Théberge calls the “accumulated sensibilities” of the instrument.

Besides qualifying an instrument by naming a genre explicitly—thereby indicating a set of material properties, performance techniques, and stylistic traits—we recognize the significance of context when we use different names to describe instruments that are physically similar or identical. For example, a fiddle is oftentimes in its physical constitution identical to a violin, yet by calling it a fiddle we are implicitly indicating a field of genres—folk music, and in particular folk music intended to accompany dancing, as opposed to classical music. These genres in turn imply a network of social and cultural considerations, including performance venues, audience subcultures, particular associated dances, typical ensembles, the primacy of an oral rather than written repertoire, incorporation of stylistic improvisation, an emphasis on rhythmic precision, a body of performance techniques such as prevalent double-stops and bowing patterns that accent upbeats, and so forth. A name might also point to an instrument’s monetary worth or sentimental value, or to the amount of respect given a genre with which it is associated, hence the punchline to this common joke: “What’s the difference between a violin and a fiddle? No one cares if you spill beer on a fiddle.”

Although our colloquial discourse addresses these contextual aspects of musical instruments, the common concept of musical instruments as “fixed, static objects” tends to characterize a performer’s relationship with an instrument as a subject-object relationship. In saying a performer plays an instrument, we are usually saying that the performer—a subject—acts upon the (passive) instrument. The performer and the instrument are distinct entities, and the performer is the decisive agent, the instrument merely an object to which things are done.
Already we have witnessed grey areas that question the clear divisions between instrument and technique, object and subject. Consider, for instance, whether a violin bow is part of a violin. The bow gives the violin some of its basic “violinness,” yet as a physical object it is separate from the violin, neither fixed nor static. Likewise, how does our understanding of a violin change when it is played with a Baroque bow rather than with a modern bow? Or when it is played not with a bow at all, but when it is played, as it often is, *pizzicato*? Likewise, is a guitar pick part of a guitar? Can we justify a pick being distinct from both the guitar and the performer? How does our understanding of a guitar change when it is instead played with the fingernails? Even if we treat the performer-instrument relationship as a subject-object one, we need to address the limits of each: where does one end and the other begin?

There is another problem with the subject-object approach: the instrument makes a difference; it effects change. There are significant musical reasons why Jascha Heifetz played a 1742 Guarneri violin, Itzhak Perlman plays the 1714 Soil Stradivarius, and Glenn Gould played his adored yet idiosyncratic CD 318 Steinway grand piano. These performers clearly believe that they are able to most successfully fulfill their artistic visions as performers by playing these particular instruments. Moreover, a subject-centered approach has difficulties in accounting for the nature of the relationships that many performers develop with their instruments, relationships that they characterize as friendships or even romances. Glenn Gould, for example, said about his beloved CD 318, “This is the first time in history that there has ever been a romance on three legs.”

Nevertheless, despite the apparent failure to address problems like these, the concept of a musical instrument as a fixed object persists, leading contemporary organologists like Margaret

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Kartomi, to assert that in the Western view, “musical instruments are fixed, static objects that cannot grow or adapt in themselves.” This view affords classificatory schemes, and organology has long concerned itself with the classification of musical instruments. The classifying impulse reveals itself in the organalogical work of even experimental electroacoustic musicians such as instrument builder, musicologist, composer, and improviser Hugh Davies. This idea of fixed objecthood runs through the writings of electronic composer and theorist Pierre Schaeffer, the father of musique concrète, who—despite the radical ways in which his music challenged traditional concepts of music—held clearly conservative views on musical instruments. Schaeffer defined musical instruments specifically, writing, “Every device from which a varied collection of sound objects – or a variety of sound objects – can be obtained, whilst keeping in the mind the permanence of a cause, is a musical instrument in the traditional sense of an experience common to every civilisation.” The permanence of a cause is “the instrumental timbre” and “is what tells us that several sounds come from the same source.” Meanwhile, variations include both “abstract” variations of values in the instrumental registers and “concrete” variations of characteristics in playing the instrument. Values, for Schaeffer, are those features of musical sound that engender form—in most Western music primarily pitch and duration—while

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28 Kartomi, On Concepts and Classifications of Musical Instruments, 305.
29 Hugh Davies, “Electronic Instruments: Classifications and Mechanisms,” in Hans-Joachim Braun (ed.), I Sing the Body Electric: Music and Technology in the 20th Century (Wolke, 2000; reprinted as Music and Technology in the Twentieth Century, Johns Hopkins University Press, 2002). Davies uses the term “electrophone”—apparently introduced by Curt Sachs in 1940—to describe instruments “in which electrical amplification is an essential part of the process of sound production.” He then modifies Canon Francis Galpin’s 1937 classification by categorizing electrophones into electronic, electromechanical, and electroacoustic instruments, before in a separate section discussing controllers, such as those that use control voltage or MIDI. Particularly intriguing about Davies’ organological writings is that his own instruments often challenged traditional notions of instrumental stability and performance practices. In a 1977 article on Davies’ instruments, for example, David Roberts writes, “When he talks about his work it is noticeable that Davies constantly uses phrases like the instrument tells me what to do, the materials show me how it should be” (David Roberts, “Hugh Davies: Instrument Maker,” Contact 17 [Summer 1977]: 11).
characteristics are less important structurally, and in most Western music include things like dynamic levels, articulation, and local variations in instrumental timbre. Schaeffer assembles the permanence of a cause, the registral and abstract variations in values, and the concrete variations in characteristics into a three-pronged set of criteria by which one may critique musical instruments.

It is not hard to see the connection between Schaeffer’s permanence of a cause and the conventional concept of fixed, static instruments. Schaeffer himself explicates this relationship by asserting that the musical instrument is questioned by the emergence of extended techniques, which breach the permanence of a cause: no longer can a listener presume to identify the cause of a sound created with an extended technique as coming from the same instrument played with a conventional technique. That extended techniques problematize Schaeffer’s concept of musical instruments is itself problematic; should not, after all, ideas about musical instruments reflect the actual ways in which they are used? For Schaeffer, however, extended techniques are not alone in questioning the instrument, for electronic music, serialism, and the introduction of so-called “false instruments”—most percussion instruments—also all question the instrument. Attempting to recover instrumentality, Schaeffer suggests that electronic composers may generalize the concept of musical instruments in order to form “pseudo-instruments,” by defining new registers and conscientiously addressing the three instrumental criteria of registers, timbre, and playing potential. However, by holding on to a conventional concept of musical instruments—and in his inability to theoretically assimilate the practices of composers as diverse as Arnold Schoenberg, Edgard Varèse, Henry Cowell, and John Cage—Schaeffer displays a surprisingly conservative attitude. Perhaps for this reason it is understandable that Schaeffer later in life claimed to have failed to create music at all. In an oft-quoted interview conducted by improvising guitarist and
clarinetist Tim Hodgkinson, Schaeffer strikes a disarmingly honest tone of resignation in assessing his own work. When Hodgkinson asks him if new music is impossible, Schaeffer answers, “Yes, a music which is new because it comes from new instruments, new theories, new languages. So what’s left? Baroque music.” Schaeffer continues, “[I]t’s not that I disown everything I did – it was a lot of hard work. But each time I was to experience the disappointment of not arriving at music.” Schaeffer’s conception of music, then, is deeply rooted in Western historical models, themselves incapable of incorporating Schoenberg or Varèse or Cage. Schaeffer’s failure to adequately help us address these musics—let alone the further and distinct challenges of electroacoustic improvisation—is rooted in the basis of fixity. Critiquing Schaeffer’s influential idea of the objet sonore (“sound object”), Christoph Cox argues that sounds are not objects but events: a sound is unique in time and duration, and its temporal evolution is an essential rather than tangential characteristic. I suggest that this attribute applies to instruments as well as to sounds: instruments are not fixed objects but are dynamic, ever-changing through time.

A growing number of musicologists cite the shortcomings of the view that holds musical instruments as fixed, static objects, and, noting its limiting effects on the study of musical instruments, propose a “new organology” in its place. For instance, observing that organologists have primarily focused on instrument design, the use of musical instruments in traditional settings, and classification (which is, again, usually based on the previous two areas), Allen Roda argues that in general human-instrument relationships have been taken for granted.

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encounters that shape such relationships, however, demand investigation, particularly when such encounters occur in performance. The study of human-instrument relationships reveals several noteworthy points. First, the distinction between human and performer can appear to be dissolved, the instrument becoming a kind of prosthetic extension of the human body. For example, in describing the relationships between violinists and their instruments, virtuoso violinist Jennifer Koh says, “The violin is an extension of ourselves, and to take it away is like losing a kidney.” Such a view is common among virtuoso instrumentalists.

Second, the mutual ability of both the human and the instrument to change each other contradicts the view that treats instruments as fixed and objective rather than dynamic and agentic. The instrument actively changes the body of the performer in the acquisition of technical facility and in the bodily adaptation the instrument effects. As Michel Waisvisz succinctly puts it, “No virtuoso violin without a pain in the neck.”

In a discussion on musical instruments in free improvisation, John Corbett compares the acquisition of instrumental technique to Michel Foucault’s description of bodily discipline. Foucault writes, “Discipline defines each of the relations that the body must have with the object that it manipulates. Between them, it outlines a meticulous meshing.” Given this, Corbett argues, “This disciplined individual (and instrument) can therefore be orchestrated.” In this view, then, discipline in the human-instrument encounter operates in both directions; each entity changes the other.

Whereas Corbett is primarily concerned with the “object-body articulation” as it manifests itself within free improvisation, John Tresch and Emily Dolan propose an approach to a new organology that is general enough to be used to analyze not only musical instruments in their many varied historical and cultural contexts, but also scientific instruments as well. Like Corbett, however, they too draw on Foucault, suggesting that instruments have an ethical dimension in their influence on human behavior and agency. As such, they argue, we may study instruments through Foucault’s ethical framework, which rather than a set of moral codes concerns the self’s relation to the self. Replacing Foucault’s “self” with instruments, Tresch and Dolan propose a set of features that would characterize a new organology, one that considers the ways in which people have understood instrumental actions and their consequential effects on humans. They suggest four categories in which instruments may be studied: their material disposition, mode of mediation, map of mediation, and telos. An instrument’s material disposition concerns its physical constitution and the arrangement of its components. The mode of mediation describes the degree of agency the instrument appears to have. The map of mediation traces an instrument’s relationship with other instruments, its users, their desiderata, and their audiences; while in the history of science the map of mediation corresponds with the ideas behind the emerging terms apparatus, assemblage, network, and Foucault’s dispositif, the map of mediation regarding musical instruments encompasses instrumentation and orchestration. Finally, telos describes the ways in which instruments are used.

This new organological approach profitably applies to instruments in diverse contexts, looking backward as it does from the current digital vantage point, where virtual instruments in digital audio workstations are, like Marshall McLuhan’s characterization of media, “extensions

of ourselves,” although in novel respects, distinct from the way that traditional musical instruments are physical extensions of performers. This new framework addresses not only contemporary ideas of instruments—both musical and scientific—but historic instruments, as Tresch and Dolan’s examples of microscopes and both musical and nonmusical keyboards demonstrate. However, it is particularly well-suited and perhaps even most necessary in practices such as electroacoustic improvisation, in which the material constitution of an instrument may be obviously dynamic—changing even throughout a single performance—and in which performers actively cultivate and foreground the agency of their instruments. Furthermore, many electroacoustic improvisers perform with instruments that display not only evident material dispositions but within themselves form a type of network or assemblage, relating to Tresch and Dolan’s map of mediation. Improviser Andrea Neumann’s *Innenklavier* (“inside piano”), for example, comprises not only a custom-built, scaled down piano frame and strings, but a mixing board, microphones and pickups, forks, and sundry other implements, leading her to refer to it as an “instrumentarium,” a term normally used to refer to several distinct instruments but which Neumann uses to describe her assemblage, and which the present work likewise adopts. Finally, the telos, or uses, of musical instruments within electroacoustic improvisation are crucial to understanding the practice, illustrating as they do the motivating concerns of improvisers.

If, as I suggest, instruments are not fixed but rather always in flux, how can we conceptualize them? We might consider the ways in which instruments display something akin to hypertextuality. A hypertext contains links to other texts (and different parts of itself), and so a reader’s experience with it is non-linear and dynamic, necessarily dependent on individual choices one makes about which of these connections to explore and in what order, these chosen connections then possibly leading to others, and so forth. Likewise, by analogy an instrument
may contain connections both amongst its own component parts and to other instruments or parts of instruments. A player’s experience with it is therefore non-linear and dynamic. Seen in this light, an instrument demonstrating these characteristics is effectively a modular instrumentarium. As we will see, illustrations of hypertexts, for instance that in Figure 2.1, are not dissimilar from the illustrations of the instrumentaria of the musicians studied in the performance analyses to come.

![Diagram of a hypertext network](image)

*Figure 2.1: A common graphical depiction of a hypertext, in which parts of texts are connected to parts of other texts.*

It is perhaps not entirely coincidental that the term “hypertext” seems to have first appeared in print in 1965, the year of AMM’s founding. Nor is it accidental that the networks upon which hypertexts often rely bear resemblance to the networks of instrumentaria. Yet while electroacoustic improvisation highlights the hypertextual nature of instruments, I suggest that its practices simultaneously reveal basic truths of instrumentality without restriction to particular genres or practices. Thus, while retaining the terms instrument and instrumentaria, we might note the degrees to which specific human-instrument encounters and practices demonstrate or
foreground hypertextuality and the ways in which they do so.

Similarly, if instruments are not fixed but their configuration is always in flux, how can we categorize them? Predominant classificatory schemes tend to rely both on material fixity and specific performance technique and therefore fail to adequately account for uses of instruments that demonstrate—as many of those examined here do—dynamic configurations and multiple performance techniques. Kartomi characterizes classifications as either natural (that is, emerging from within the specific culture that it describes) or imposed artificially by an external observer. Each of these two types of classifications may themselves take one of two forms. “Culture-emerging, or natural, schemes may take the form of taxonomies, which apply one character of division at each step, or of paradigms, which apply more than one principle of division at each step,” Kartomi writes.\footnote{Kartomi, On Concepts and Classifications of Musical Instruments, 16.} On the other hand, “Scholar-imposed, or artificial schemes may take the form either of keys (tree diagrams), with one character per step, or of typologies, applying more than one character or facet (sharply defined aspect) per step.”\footnote{Ibid., 16–17.} Taxonomies and keys, which are unidimensional, take a top-down approach, the general being subdivided into the particular. On the other hand, paradigms, based upon the union of horizontal and vertical aspects, and typologies, which adopt a bottom-up approach, are both multidimensional, taking into account multiple attributes at each level. Significantly, in the field of biology—where classification of organisms, for example, is a central concern—upward classification has replaced downward classification, perhaps suggesting that a bottom-up approach like that of typologies be profitably applied in classifications of musical instruments as well.\footnote{Ibid., 30.} Conventional typologies still may have trouble incorporating dynamic entities, however, and so, following the analogy between

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\footnote{Kartomi, On Concepts and Classifications of Musical Instruments, 16.}
\footnote{Ibid., 16–17.}
\footnote{Ibid., 30.}
hypertexts and hyperinstruments, we might consider the adoption of tags to classify instruments. Kartomi asserts that “classification may minimally be defined as ’assignation to a proper class.’” On the other hand, tags—by convention non-hierarchical descriptive keywords—identify items belonging to several categories rather than asserting that there is one and only one proper class to which each item belongs. Tags applied to aspects of musical instruments should consider possible attributes that arise in the course of performance: a stringed instrument might be tagged with bowed, plucked, and electromechanically actuated, for instance. To some extent under this scheme, characterization replaces classification, and identification of a multiplicity of possible specific characteristics supersedes the assignation of an item to a single class.

This study positions human-instrument encounters at the center of electroacoustic improvisation, suggesting that by examining the relationships between performers and instruments we gain crucial understanding of the musical practice. This approach addresses two further objections contra Schaeffer raised by Brian Kane. First, while Schaeffer treats the sound object as automatous and divorced from indicative and social aspects, Kane—citing Adorno—argues that musical material “cannot be defined outside of the context of its own historical becoming; rather, the compositional act is engaged, from the very beginning, in a dialectic with history, in the form of sonic material.” Here we are reminded of Cornelius Cardew’s assertion that, “[I]t is not the exclusive privilege of music to have a history—sound has history too.” Second, Schaeffer’s essentialist stance towards technology fails to consider how new technologies offer “historically unique affordances.” In response to Schaeffer’s characterization

43Ibid., 16.
45Cardew, “Towards an Ethic of Improvisation.”
46Kane, “L’Objet Sonore Maintenant,” 22.
of the age of mechanism as ultimately revealing “man himself,” Kane objects, “This is no account of historically specific persons involved in creative and critical engagements with the technological means at hand; rather, Schaeffer presents a picture of ahistorical, existential man discovering himself within a teleological horizon.”\textsuperscript{47} In contradistinction, one goal of the present project is to offer accounts of historically specific persons involved in creative and critical engagements with the technological means at hand.

The natures of these engagements, these human-instrument relationships, reveal themselves in both the discourse of improvisers and in performative encounters. Thus, in introducing the emergence of the practice of electroacoustic improvisation I pay particular attention to the ways that improvisers describe their relationships with instruments. In the three analyses that then follow, I investigate how these relationships are embodied within performance. And finally, I conclude by reviewing characteristics of an enlarged concept of musical instruments and argue that not only is such a concept necessary for practices like electroacoustic improvisation but in fact the characteristics of such a concept are always already at work in diverse practices.

\textsuperscript{47}Ibid.
The rise of new musical practices in the twentieth century brought conventional Western concepts of musical instruments into question. Among the most radical innovations occurred with the advent of electronic forms of technology, which, as used in musique concrète, made it possible to create music that clearly challenged previous concepts of musical instruments both in its frequent wholesale eschewal of traditional musical instruments and its obviation of performance per se. Music could now be created out of recorded sound and then disseminated via radio broadcast or tape playback without either musical instruments or performers in any conventional sense. While among the more direct attacks on traditional notions of instrumentality, musique concrète was far from alone, as the last chapter discussed; for theorists like Pierre Schaeffer, the practices of twelve-tone serialism, the proliferation of extended techniques, and the growing use of percussion instruments all also questioned conventional concepts of musical instruments. So, too, do the practices of electroacoustic improvisation, and as we will see, although electroacoustic improvisation in particular as a historically situated practice shares certain commonalities with musique concrète, improvisation challenges concepts of musical instruments in different ways, in that it is nearly by definition performed: improvisation is music that is created by performers at the moment of its performance (whether such performance is in front of an audience or in a recording studio). In fact it is

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48 Improvising saxophonist Steve Lacy: “In fifteen seconds, the difference between composition and improvisation is that in composition you have all the time you want to decide what to say in fifteen seconds, while in improvisation you have fifteen seconds.” With musique concrète, in contrast to traditional composition, there is not a “saying,” however, and so in some respects improvisation differs from it even more than it does from
simultaneously the obvious connections with musique concrète and the intentional contradistinctions from it that characterize the practices of Group Ongaku, among the first ensembles of electroacoustic improvisation. In discussing electroacoustic improvisation, I wish not to define a genre of music but rather describe a practice characterized by a number of integral features shared by its proponents, whose music operates in similar ways. As I use it, electroacoustic improvisation certainly has many commonalities with the connotations of terms such as its acronym, EAI, experimental music, non-idiomatic music, self-idiomatic music, timbre-and-form, reductionism, lowercase, Echtzeitmusik, onkyō, the New London traditional composition.


53 Lou Bunk, “Timbre-and-Form: The BSC and the Boston Improvising Community,” in Analytical and Cross-Cultural Studies in World Music, ed. Michael Tenzer and John Roeder (New York: Oxford University Press, 2011), 225–262. “Timbre-and-form is a recently invented genre of music that explores timbre and form through free improvisation … Timbre-and-form musicians perform with a broad assortment of sound making objects, synthesizers, effects pedals, laptops, DIY (do-it-yourself) electronics, and uniquely modified instruments. When traditional instruments are played intact, it is often with an assortment of extended techniques, enhancing the sonic palette. In these concerts, conventional melody and harmonic progression are overshadowed by transforming spectra and the beautifying of noise.” (226)


However, by choosing to use the term electroacoustic improvisation I am attempting to highlight two principal attributes. First and most obviously, the music is improvised. Second, the instruments are frequently electronic or electroacoustic, that is, the source is acoustic but is modified by electronics. This clearly applies in cases like Andrea Neumann’s *Innenklavier*, in which the innards of a piano are actuated by various implements, equipped with contact and other microphones, connected to a mixing board, amplified, and diffused by speakers. It also applies in a more general sense, when acoustic instruments are used without amplification but when the techniques performers employ reflect the vital influence of electronics. Note, for example, the broadband noise textures that trumpeter Axel Dörner sustains in inhuman fashion throughout much of his pointedly titled album *Trumpet*, or the steady-state sine-like notes Cor Fuhler evokes from an acoustic grand piano, or the nearly static blocks of sound Burkhard Beins elicits from his drums and the high-frequency oscillations he coaxes from his cymbals.

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60. Keith Rowe, who features prominently in this chapter as well as Chapter Six, uses the phrase “improvised music” only begrudgingly. He says,

> I mean, improvised music, I go along with the term, because I don’t actually have another term for it. I actually don’t like the term ‘improvised music’ very much. I think that if I’m honest there was a period where I thought maybe it was a legitimate term and maybe I could see what my dear friend Eddie Prévost meant and he was probably quite right at one point to actually emphasize improvisation’s importance and its quality, because it was not recognized. So I think to give it some kind of recognition, some kind of status, rather than ‘well, it’s only improvised’, it’s something that was very important at a point. But I would say for the last 20 or 30 years, you would very rarely catch me using the word, but I’m forced to use it in a way, because I don’t think I have another term.


61. Guitarist Keith Rowe (see previous footnote), who is, along with his AMM cohorts, among the first practitioners of electroacoustic improvisation, notes the tendency—emerging around the turn of the twenty-first century—for acoustic instrumentalists to adopt the characteristics of electronic sound and adapt them for their own instruments. He says, “Today in Europe there’s an acoustic school influenced by electronics. Take [trumpeter] Axel Dörner…the way that electronics can be translated to an instrumental context. How could a trumpet player
In some respects this description of electroacoustic improvisation is more specific than the alternative terms. For example, experimental music as formulated by Nyman includes many characteristics shared with electroacoustic improvisation: fluid processes instead of static objects, anti-teleological procedures instead of goal-driven works, momentary evanescence rather than temporal fixity, the precedence of performance over writing, and the welcoming of—rather than transcending—daily life. However, a good deal of experimental music is composed rather than improvised, and much of it does not in its performance practice crucially reflect the influence of electronics. Likewise, EAI, which originated as an acronym for electroacoustic improvisation, is also now frequently used to describe music that shares particular aesthetic qualities—including the use of silence and attention to subtle sonic nuance—rather than improvisatory practices. Thus many observers apply the term EAI—or “post-EAI”—not only to electroacoustic improvisation but also to the music of the composers belonging to the post-Cage Wandelweiser collective as well as to other composed experimental music.

In some respects, however, the term electroacoustic improvisation is more general than the alternatives, referring

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63 Note, for example, EAI standard-bearer and Erstwhile founder Jon Abbey’s advertising description of the “AMPLIFY 2015: exploratory” festival; responding to Christoph Cox’s description of the 2001 AMPLIFY festival as “the first annual summit of the new global improv,” Abbey writes, “AMPLIFY has not been quite annual, and has partly moved away from improv.” Abbey has also compiled an “EAI primer,” a list of recommended EAI recordings, including “proto-EAI or influential pieces, as well as some composed recordings that I think are close enough to this area to include.” Abbey notes that around 2009, “these lists begin to factor in more composition, so [move] gradually away from EAI and towards something more accurately labelled post-EAI or what Michael Pisaro calls ‘exmus’, short for experimental music.” Robert Kirkpatrick has created a similar list of “core EAI albums.”

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Describing the term EAI, he writes, “Originally this stood for ‘electro-acoustic Improvisation’ but has taken on a wider meaning then [sic] a literal take on those words would imply.” My choice of the term electroacoustic improvisation seeks to foreground practices rather than aesthetic similarities.

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not only to specific movements localized in place and time (like onkyō or Echtzeitmusik) but instead to a transnational, multigenerational network of musicians and activities linked by shared performance practices, collaborations, and discourse.

Among existing terms, my use of “electroacoustic improvisation” is perhaps most similar in connotation to self-idiomatic music. Coined by improviser Mike Bullock, self-idiomatic music describes types of music-making in subcultures around the world and distinguished by several notable features: the use of traditional instruments, techniques, and forms in ways foreign to idiomatic music-making; extended techniques; noise; forms resulting from sound-making processes, the deployment of these processes in time, and non-hierarchical relationships among musicians in an ensemble; self-built instruments; and rhythms related to practical actions of the sound-making apparati rather than to a metric grid. While all of these characteristics apply to my use of the term electroacoustic improvisation, the latter in particular points to the agentic qualities of the instruments that are highlighted rather than minimized in the practice of electroacoustic improvisation. Although these agentic qualities are perhaps most obvious in performers’ engagements with laptops and other electronic equipment, these engagements and their effect on the musical processes have, in turn, crucially influenced the ways in which performers relate with even traditional acoustic instruments. For example, composer and improviser Richard Barrett writes, “I’ve come to think the defining feature of EAI is not so much quietness or slowness but the way that using computer-based instruments removes the necessity for sounds to involve (physical) gestures like they do with acoustic instruments, which has then influenced players of more traditional instruments to think of their own instruments in different

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ways.” The improvising saxophonist Bhob Rainey likewise notes the pervasive impact of electronics on acoustic improvisers. In describing formative influences among free improvisers from 1997 to 2000 he writes, “I can’t tell you how many times people told me that they were trying to sound like ‘electronic music.’” In adopting the term electroacoustic improvisation, I want to highlight the significance of electronics to this practice.

This chapter presents a thumbnail history of the emergence of the practice of electroacoustic improvisation, focusing on a few significant practitioners and relying on their own words and performances to illustrate key aspects of their practices. Many of these practices are shared by other electroacoustic improvisers, and in fact I argue that a few of these practices in particular—free improvisation, the influence of electronics, and the embrace of instrumental agency—form decisive connections among these musicians. However, while these commonalities in practices are important, they are not the only bonds that form this grouping. Rather, this grouping is created and recreated by a network of practices, discourses, and institutions. In many cases, these musicians have performed or recorded with one another, they have performed at the same festivals as one another, they have released albums on the same

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67 Benjamin Piekut convincingly argues this point in the introduction to *Experimentalism Otherwise: The New York Avant-Garde and Its Limits* (Berkeley: University of California Press, 2011). Piekut details the significance of actor-network theory (ANT) to his approach, and indeed many of the same assumptions underlie the present study. In turn, I think, the practices this work examines illustrate the usefulness and even the necessity of ANT and other object-oriented ontologies. ANT concerns itself with the “sociology of associations,” the tracing of associations amongst human or non-human actors within dynamic networks in which such associations are constantly being made and re-made (see Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* [Oxford: Oxford University Press, 2005], 9). The granting of agency to non-human actors requires for some of the uninitiated a leap of faith. This study, among other tasks, attempts to demonstrate both the ways in which musicians describe the agency of their instruments and how such agency reveals itself in practice, in the process illustrating how non-human actors can assume agency.
labels, they have exchanged ideas through influential platforms of internet forums, interviews, liner notes, articles, and books. Although this chapter highlights the common practices of these improvisers, especially as they relate to and problematize concepts of instruments, these other connections inform this grouping.

The bulk of this chapter examines the emergence of electroacoustic improvisation in the practices of both Group Ongaku (or “the Music Group”) and the related Taj Mahal Travellers, and of AMM. After identifying a few salient features of these practices—including the significance of electronics, the cultivation of instrumental agency and concomitant ceding of performer control, the prioritization placed on listening above playing, and the move toward an enlarged concept of instrumentality in what might be referred to a modular instrumentarium—the chapter concludes by examining how these features flourish in the practices of more recent improvisers, setting the stage for the three performance analyses that follow.

Because of both its historical position and the clear influence of electronic music vis-à-vis musique concrète, we begin our examination of electroacoustic improvisation and the ways in which it challenges traditional notions of musical instruments by looking at the Japanese ensemble Gurûpu Ongaku, known in English as Group Ongaku, but which, as William Marotti persuasively argues, should instead be translated as the Music Group. The Music Group convened in 1958 after violinist Takehisa Kosugi and cellist Shukou Mizuno—who had been playing together as a duo since 1956—shared their rehearsal methodology with fellow students

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68William A. Marotti, “Sounding the Everyday: The Music group and Yasunao Tone’s Early Work,” in Yasunao Tone, Noise Media Language (New York: Errant Bodies, 2007), 13–33. Marotti in fact suggests that the name be translated as “the Music group,” with “group” having a lowercase “g.” For the sake of clarity I capitalize this letter.
at Tokyo National University of Fine Arts and Music, including pianist Chieko (later Mieko) Shiomi, guitarist Genichi Tsuge, and cellist Mikio Tojima of the Musicology department, and Yumiko Tanno of the Vocal Music program. Yasunao Tone had studied literature at Chiba University, where he had been a classmate of Mizuno’s, and although a musical novice he began playing with the duo after buying a Sony tape recorder and (from Kosugi) a saxophone.

Eventually, the ensemble needed to name itself for a public performance, held at Kuni Chiya Dance Institute in September of 1960. Mizuno, as rehearsal pianist for the Institute, served as the connection between the ensemble and the Institute. Although the group had performed publicly the preceding year it did so then without a name; the previous performance also occurred before the group’s revelations of May 1960 that Tone would soon describe. So Tone—inspired by the Surrealist magazine Littérature (“Literature”)—proposed the ensemble be called simply “music,” adding the word “group” to make it clear that this was a performing ensemble.

In suggesting the name “music,” Tone aligned himself with the aim of the literary Surrealists, which was to simultaneously mock and liberate literature by using new methods like automatic writing. Tone, however, intended to liberate not words but sounds by transferring the process of automatic writing to automatic music-making. Marotti summarizes Tone’s project, “As his 1960 text asserts, their procedures could reveal the ‘materialized unconscious breath’ of the items of the everyday world, the hushed whispers of things speaking their secrets. Freed of ‘egotism,’ ‘electronic manipulations,’ the assumptions of the traditional categories and very definition of music, their practice would encounter the ‘concrete,’ the ‘true’ through a ‘spontaneous,’

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69 Marotti, “Sounding the Everyday,” 19.
70 Ibid.
71 Ibid., 27.
‘utilitarian,’ ‘pure’ improvisational encounter with sound objects.” This characterization points to several significant aspects of the group, two of which warrant special attention here.

First, in both the name’s emphasis on the group rather than on individuality and in the disavowal of egotism, Tone declares that the Music Group presents an attractive alternative to the traditional Romantic model of the virtuoso soloist, an alternative marked by a more communal model of egalitarian, collective creation. According to Tone, the Music Group’s improvisational method responded to claims that pure spontaneity displays egotism by merely comprising decoration or ornamentation because of its scant connection to its materials, by instead foregrounding the physical materials—“concrete sounds”—and tying the performance to them. Mizuno suggests that this practice furthermore eschews egoism by melding individualities together, the group itself “becoming a new individuality.”

Contrast this with, for example, the contemporaneous development of free jazz. Inheriting the solo-oriented star system from their jazz forbears, many of the early important free jazz albums continue to promote the featured soloist rather than the group. For example, the covers of Ornette Coleman’s first four albums—Something Else!!!! (1958), Tomorrow is the Question! (1959), The Shape of Jazz to Come (1959), and Change of the Century (1959)—each feature Coleman’s name and a photograph of him alone, avoiding any suggestion that the music contained on the record within is performed by a group. Only with 1961’s This Is Our Music (by—significantly—the Ornette Coleman Quartet) does the cover name and depict the other musicians: Donald Cherry, Ed Blackwell, and Charlie Haden. Free Jazz: A Collective

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72Ibid., 28.
Improvisation (1961) by the Ornette Coleman Double Quartet further highlights the importance of the group and features an image of Jackson Pollock’s 1954 painting The White Light in lieu of a photographic ensemble portrait. Even in this case, however, the one and only name gracing the album cover is Ornette Coleman’s. Furthermore—and more significantly—while the recording contains a good deal of collective improvisation, it largely consists of a succession of solos with rhythm section accompaniment; thus much of the music does not aim for a unified group sound but for instead numerous distinct solo voices, even when these voices sound simultaneously.

Similarly, the covers of most of Cecil Taylor’s early albums feature his name alone (collaborators, when listed at all, appear in much smaller type), and when the cover photographs feature musicians, they nearly unanimously show Taylor alone. Also, like Coleman’s, the music clearly derives from solo-based improvisational structures not entirely dissimilar from earlier jazz forms excepting the previously standardized adherence to pre-ordained harmonies, rhythms, and forms. While Coleman’s and Taylor’s music—and those of their contemporaries who fought to loosen the reins on improvisation—is indubitably monumentally important, the Music Group highlights the aspect of collective creation and concomitant attenuation of the individual ego to a greater extent. By doing so, the Music Group more directly challenges traditional musical values that prioritize virtuosic mastery over one’s instrument; instead the group foregrounds the material characteristics—one might even say agency—of the instruments themselves. In fact, as

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74 The institutional bias toward star soloists in jazz is also at work, record companies for instance exerting significant force in deciding album titles and covers. This bias reveals itself even in the way in which some newspapers advertised AMM in their early performances as The Cornelius Cardew Quintet (!).

75 There is, of course, a significant racial aspect to these practices. In the late 1950s and early 1960s in particular, many African-American artists were asserting their individual agency through improvisation despite—and in strong opposition to—the systemic racism that sought to suppress their agency. The subsequent growth of artist collectives like the Association for the Advancement of Creative Musicians (AACM) and its member groups such as the Art Ensemble of Chicago illustrates the emerging tendency toward individual empowerment through collectivism.
we will see, these attributes—present already in the work of the Music Group—are all hallmarks of electroacoustic improvisation in general.

Second, in prioritizing the “concrete” Tone clearly identifies with the aesthetics of Schaefferian *musique concrète* while simultaneously distinguishing the Music Group’s process: their music is spontaneous—that is, improvised—rather than planned or composed, and it avoids the electronic manipulations so characteristic of classical *musique concrète*. Tone explicates the group’s relationship with *musique concrète* when he writes, “In May of 1960 the members of our group chanced to encounter [sôgû shita] an experiment concerning an absolutely new music. It was an improvisational work of *musique concrète* done collectively.” He stresses the two important aspects that distinguish this new music from its predecessors: “our adoption of improvisation within *musique concrète*, and our recording of the actual sound without the addition of any mechanical processing to preserve the purity of the spontaneous method.”

Similarly, Mizuno recognizes the significance of Schaefferian *musique concrète* while lamenting its renunciation of performance. *Musique concrète*, Mizuno argues, constitutes “the search for an acoustic world of infinite rhythm and...infinite interval” but lacks the essential dialectical component of performance, which is “replete with the experience of existence.” The act of performance is therefore primary, and the creation of a work is at best secondary, Mizuno avers: “[P]reserving a masterpiece is done for nothing but for the sake of a pathetic act called aesthetic appreciation.” Kosugi agrees, arguing that, “[I]n improvisational practice, even if the vestiges of forme are preserved [e.g., via recording], it is the act within flowing existence that is

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the purpose.” That the indeterminate forms created in this mode of improvised performance “may be grasped through the repetition of practice” further suggests that in studying the Music Group one be concerned with the practices of the group rather than wholly or predominantly with the works (or, as Mizuno and Kosugi term them, formes) resulting from these practices. In fact, this proposition guides the present inquiry: the analyses that follow aim to view performances as windows into the practices of performers rather than as works in the typical sense, and although as unique events belonging to specific times and places with marked beginnings and endings they may be treated and analyzed as distinct entities, they belong to, and are in some sense synecdoches for, larger networks of practices.

Not only does the discourse of the members of the Music Group assert the primacy of the ensemble’s method—creating musique concrète through live improvisation—so, too, do the titles of the pieces recorded at Mizuno’s house on May 8, 1960, and at a live performance the following year, released on the album Music of Group Ongaku. The first piece is entitled “Automatism,” clearly portraying their practice as analogous to the Surrealists’ automatic writing. Moreover, automatism—defined by the Oxford US English Dictionary as “the avoidance of conscious intention in producing works of art, especially by using mechanical techniques or subconscious associations”—highlights two key aspects of the group’s performance practice: first, the performers attenuate their own conscious intentions, and concurrently the mechanisms or agencies of their implements-cum-instruments (or instruments-cum-implements) thereby become ever more important. Such strong opposition to the intentionality that typifies most music-making produces—unsurprisingly—radically distinctive music, which in this piece is

marked by a barrage of bells, roaring metal sheets, the inside of a (possibly prepared) piano, what sounds like a vacuum cleaner, an alto saxophone, a radio (that occasionally grabs fragments of broadcast music, often quite distorted), and numerous other acoustic and electronic sounds, both identifiable and not. The piece seems most successful at its midpoint, when the layering of unrecognizable electronic sounds creates an abstract soundworld apparently divorced from both direct performer intention and listener identification.

The record’s second piece is entitled “Object,” a clear reference to the Schaefferian sound object. Here the sounds are generally more abstract, unpitched, and less conventionally musical than in the previous piece, and their sources are less readily identifiable. There is an abundance of transient percussive sounds, some of which pass through an echo effect that sometimes feeds back and produces bursts of noisy distortion. Occasionally we hear banging on metal cans, water filling a cup, and a vacuum cleaner. The piece ends with a spoken sound bite (perhaps from a radio) and an electronic punctuation.

Finally, the third piece, recorded from a live performance on September 15, 1961, at Tokyo’s Sogetsu Kaikan Hall, is titled “Metaplasm 9-15.” “9-15” obviously refers to the date of the performance. “Metaplasm,” meanwhile, requires a bit more explanation. A metaplasm is a change made to a word’s letters or sounds; examples include the numerous differences between word spellings in British and American English, for instance “aluminium” and “aluminum,” or poetic modifications to words, as in the phrase, “The taffeta was lavender, Was lavend, lavender, lavenderest” from Ogden Nash’s “The Private Dining Room.” Thus the title “Metaplasm 9-15” both unites Tone’s preoccupations of poetry and sound and emphasizes the here-and-nowness of the group’s practice. The performance begins with violin scratches and inside piano flourishes, and soon we hear plucked string instrument glissandi, high frequency electronic oscillations,
post-Webernian piano gestures (now played using the keys), and low *arco* cello notes. The music here is often highly gestural and explores continuums of both dynamics and rates of activity, frequently incorporating dramatic uses of pregnant silences preceding flurries of activity. A freely honking saxophone shapeshifts to sound like electronic oscillations, which in turn sound similar to the violin’s high-pitched *glissandi*. Twice there is clapping; is it from an audience member, possibly one who has heard enough? The second time the clapping occurs it is interrupted by a *fortissimo* drumset barrage, lasting just a minute before retreating and revealing the saxophone, now much more distant. Later, the piano returns, accompanied by percussive and electronic scrapings, amplified whispering and sucking sounds. In the group’s frequent use here of low dynamics, silences, and presentation and subsequent abandonment of new ideas, it betrays a patient comfort with experimentation. After a string’s harmonic *glissando* (perhaps a low piano string being scraped), what sounds like a flanged, low-pass filtered church organ accompanies gurgling sounds and whispers. What is presumably an accordion noodles chromatically over beds of amplified and distorted voices, and reedy clusters ebb and flow alongside noisy electronics, until eventually the clapping succeeds in marking the end of the piece.

Describing the sound sources for the 1960 pieces, Tone writes,

> [W]e prepared a variety of materials for music concrète for recording onto the tape. Numerous items such as drum cans, washtubs, water jugs, forks, plates, hangers, metal and wood dolls, a vacuum, ‘Go’ stones, cups, radio, gardening reference books, a wall clock, cello, a rubber ball, an alto saxophone, prepared piano, etc. were readied as sound sources.\

Note that Tone does not classify or differentiate between traditional musical instruments and everyday objects; rather, he considers all equally to be “sound sources.” In so doing Tone critiques common concepts of musical instruments that not only distinguish from but privilege

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musical instruments above quotidian implements, arguing, “A musical instrument is an object, and it’s fundamentally no different from other objects.”

Fellow member Mieko Shiomi elaborates on the Music Group’s democratic approach to instruments by describing their peculiar methodology, which sought to liberate music through the emergence of Schaefferian sound objects:

This explosion of activity was characteristic of our insatiable desire for new sound materials and new definitions (redefinition) of music itself. Every week we discovered some new technique [or] method for playing a previously unthought-of ‘objet sonor,’ [sic] and argued endlessly about how to extend its use, and what relationships of sound structure could be created between each performer. We experimented with the various components of every instrument we could think of, like using the inner action and frame of the piano, or using vocal and breathing sounds, creating sounds with the (usually unplayable) wooden parts of instruments, and every conceivable device of bowing and pizzicato on stringed instruments. At times we even turned our hands to making music with ordinary objects like tables and chairs, ash trays and bunch of keys.

Significantly, Shiomi explicitly references the Schaefferian objet sonore and implicitly describes bricolage when detailing the use of ordinary objects to make music. Regarding the sounds of these commonplace objects, Tone says, “These innumerable emitted sounds that in everyday life go unnoticed or are recognized only out of necessity made us feel as if with the movement and collision of the materials themselves, the items cancelled themselves out, and we could grasp their materialized unconscious breath.” This observation in particular bears striking similarities to Schaeffer’s assertion regarding the relationship between the “implement” and the “instrument” described in the previous chapter. Schaeffer writes that while at the origins of music the implement and the instrument were likely one and the same, when used for music, “The signal that referred to the implement becomes a pleonasm, cancelling itself out by repetition. Sound

objects alone remain . . . Instrumental activity, the visible and first cause of every musical phenomenon, has the distinctive quality that first and foremost it tends to cancel itself out as material cause.”

Schaeffer’s “sound objects” for Tone transcend their mundane material sources and the listener’s normal conceptions of them while simultaneously and paradoxically revealing another aspect of their material existence, their sonic essence. The attitude of Tone and his compatriots seem to approach reduced listening as a way not only to ignore or bracket the sound sources qua material objects but to more fully and deeply experience and understand them.

As the preceding chapter described, for Schaeffer, the concept of the instrument is challenged when “false instruments” are introduced and when traditional instruments are played so as to mask their usual identity (as with many extended techniques, for instance). Chion gives the example of a gong used in an orchestra as a “false instrument.” According to Schaeffer via Chion, when a traditional instrument’s intended technique is subverted, the instrument is no longer used as an instrument but rather as a “sound body.”

In the former case, it is difficult to imagine a gong as failing to qualify as an instrument, even if it is in some respects rather limited. It should also be noted that it does not seem like an instrument ceases to be an instrument when its usual technique is abandoned. Regardless, judging by the recorded evidence and the writings of its members, in Schaefferian terms the Music Group intends to use both traditional instruments and everyday items primarily as “sound bodies” with which to produce

87 Schaeffer alternately describes gongs and other percussion as instruments or as “false instruments.” What is clear is that he finds them lacking. About “gongs, cymbals, cattlebells, and other maracas,” he writes, “In fact, rather than a collection of distinct objects which could be ranked according to an abstract quality, these instruments produce stereotyped objects, albeit in various samples, which are differentiated by their concrete characters only” (Schaeffer, Traité, p. 51, trans. Carlos Vicente de Lima Palombini, quoted in Palombini, “Pierre Schaeffer’s Typo-Morphology of Sound Objects,” doctoral thesis [Durham, UK: Durham University, 1993], 75).
“sound objects.” As the resulting music is largely concrete, the auditor theoretically is able to more easily engage in reduced listening, by listening to the intrinsic properties of the sounds themselves without necessarily associating the sounds with their causes or with meanings they are intended to convey. Although there are objections to Schaeffer’s ideas of reduced listening and sound objects, for the time being it suffices to note how in their adaptation of Schaefferian musique concrète the Music Group adopts a practice of collective improvisation that foregrounds the material agency of their “sound bodies”—what we call their instruments—and radically challenges traditional notions of musical instruments.

Although the Music Group was a relatively short-lived ensemble, the attitudes it espoused have continued to inform the work of its members, several of whom have gone on to have long and influential careers in experimental music. Yasunao Tone, for one, became active in Fluxus and has significantly worked with processes foregrounding material agency, most prominently via glitches in digital audio media, documented on recordings including 1997’s Solo for Wounded CD and 2011’s MP3 Deviations #6+7. These works draw the listener’s attention to the technologies that normally convey music while remaining ideally transparent. In their misuse, however, they become like Heidegger’s broken tool, which demands the user become aware of it. Notably, Tone has also recently performed with electroacoustic improvisers including Otomo Yoshihide and Sachiko M, the subjects of Chapter Four.

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For Heidegger, tools in use enter the mode of “readiness-to-hand” (Zuhandenheit). Readiness-to-hand reveals itself most clearly when the user—while using the tool—is no longer conscious of the tool. Heidegger refers to this situation as “withdrawal”: the tool withdraws from the user’s consciousness. On the contrary, a broken tool exhibits “unreadiness-to-hand,” and withdrawal becomes difficult or impossible. Thus the broken tool presents its unreadiness-to-hand to the user, forcing its way into the user’s consciousness.

[“When we concern ourselves with something, the entities which are most closely ready-to-hand may be met as something unusable, not properly adapted for the use we have decided upon… We discover its unusability, however, not by looking at it and establishing its properties, but rather by the circumspection of the dealings in which we use it.” (Heidegger, 1962: 102)]
Takehisa Kosugi likewise involved himself with Fluxus and in 1969 formed the group Taj Mahal Travellers, comprised of “six meta-music creators” and an “electronic engineer.” These “meta-musicians” set out—like the Music Group had—to create a new music, something beyond that which is commonly understood as music. Not only do the Travellers bear relationships to the Music Group in their non-traditional use of traditional instruments and employment of everyday objects as musical instruments within improvised performances, but they supplement these with typically heavy amplification and the use of electronic instruments and effects, particularly tape delay, liberally applied by Kinji Hayashi, the electronic engineer. The delay effects create a virtual space—paradoxically both within but somehow larger than the performance area—that the entire group inhabits, contributing to a unified group sound encompassing all the performers, no matter how varied their means. The delay effects also lengthen individual sonic events, causing even short, percussive sounds to assume a sustained character. The electronically lengthened sounds more readily congeal into a sonic whole, further creating the impression of a unified group sound. Additionally intimating both the group’s creation of a singular immersive and multi-sensory experience and its attempt to extend beyond the confines of the concert hall is the practice of accompanying the group’s performances with a film of waves crashing on a Japanese beach, the inclusion of light shows, and the use of incense.\(^89\) But the Travellers not only suggest spaces outside the concert hall, they in fact regularly performed outdoors, embracing the attendant informality of such performances by referring to them as “picnics”; their performance in Brussels on October 2, 1971, for instance, was billed “A Picnic Band,” and their performance in Tokyo on October 16, 1977, was advertised as a “sound-picnic.”

The group’s instrumentarium was large and varied; a compilation of album credits lists

the members performing on the following instruments: Takehisa Kosugi on electronic violin, vocals, harmonica, and radio oscillators; Ryo Koike on electronic contrabass, santoor, sheet iron, and harmonica; Yukio Tsuchiya on vibraphone, shenai, santoor, and tuba; Michihiro Kimura on electronic guitar, percussion, harmonica, mandolin, self-made instruments, and yeyogotion (perhaps a name of a self-made instrument?); Seiji Nagai on electronic trumpet, Mini Korg synthesizer, timpani, harmonica, castanets, and tree-branches; Tokio Hasegawa on vocals, stones, bamboos, and winds; and Kinji Hayashi, electronic engineer. On the album *August 1974*, Hirokeszu Satō (percussion and voice) replaces Hasegawa, and a poster advertising the group’s October 2, 1971, concert in Brussels also mentions shakuhachi and sho as well as amplifiers and oscillators. Piekut adds to this list several wooden flutes, a sheng, a biwa, a khaen, and “hand percussion of all types,” some of which instruments can be seen in the film *On Tour* (1972). Furthermore, for at least some performances, like that at the Young Vic in London on November 7, 1971, Kosugi set up fans so that microphones would capture their air flow. Also noteworthy are the techniques the musicians often favored: Koike, for example, laid his bass on its back and knelt over it rather than playing it upright with conventional technique.

For Kosugi, the Taj Mahal Travellers afforded an opportunity through improvisation to escape the fixity of composition, no matter how apparently open, but moreover to attempt to relinquish control over one’s music. If in the Music Group automatism represented a way of removing one’s conscious intention from the process of musical creation, in the Taj Mahal Travellers Kosugi discovered such a path in the application of electronics. Kosugi had earlier encountered an evident problem with improvisation, writing in hindsight, “I needed to liberate

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music from my own control, but improvisation is conversely still controlled by your playing habits. Improvisation is an immensely complex idiom, and the freer you become the more of a problem it is. To transcend his own playing habits, Kosugi adopted an electronic system that allowed him to engage with electronics but not completely control their behavior. A network of low-frequency oscillators and voltage-controlled filters converted sounds from his violin into a slowly moving wave that could then be combined with other waves to form what Kosugi called “heterodyne analogy” third waves. Although the exact process used is not quite clear, it is clear that Kosugi feels his adoption of this system afforded him the ability to remove his ego from the music. He says, “Bringing your own music into contact with that created by electronic waves...through that I feel that I have been able to avoid the personal habits that plague improvisation.”

Significantly, this engagement with electronic systems over which one has little control characterizes not just Kosugi’s work but that of many other electroacoustic improvisers as well, as we will see.

Although the group’s plan to travel to the Taj Mahal and then dissolve seems to have been a joke, they did indeed tour Europe before embarking on a trip to the Taj Mahal (after which they continued to perform for several years). The fascinating film On Tour documents these travels. Upon their return to Japan, the Travellers presented a concert on July 15, 1972 at Tokyo’s Sogestu Hall, the same venue where the Music Group had recorded “Metaplasm 9-15” eleven years prior. A recording of the concert was subsequently released as the aptly titled album July 15, 1972. The album’s first track begins with what sounds like an organ run through a tape delay, to which harmonica, electronic oscillators, and a trumpet add their voices. A delay effect

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93 Ibid., 36.
94 Ibid., 37.
colors all of these sounds, and the trumpet’s play with intonation in a limited range coupled with this delay creates the impression of a larger, slowly moving mass rather than a traditional conception of a note *per se*. Meanwhile, mid-range distorted bowed strings and a low-range growl—all with delays—add to the heady mix and build the energy. A later series of several upwardly moving synthetic *glissandi* contribute to the accretive texture as the harmonica gets louder and is occasionally accompanied by percussive attacks. The second track features vocal droning on ever-changing vowels, like “Yoooowwoooyyyyyeeeee,” exploring the effect of changing formant structures on the drone’s spectromorphology. A vibraphone and trumpet appear alongside numerous impulsive attacks, again all run through heavy delay effects. The album’s third track begins with Kosugi’s violin, once again augmented by a tape delay, alternating phrases with wide *portamenti*, which take on a particularly synthetic, electronic character partly because of the delay. After some contributions from a plucked string instrument (perhaps a mandolin) and a series of long trumpet notes, eventually a modal drone emerges. Over and sometimes alternating with this drone are repeated and varied phrases and long tones, including by a singing voice. The subsequent addition of percussive pounding aligned with guitar articulations makes one question whether the percussion itself emanates from the guitar. Periodically open fifths emerge, interrupted by wild violin *glissandi* alternating with returns to the droning. One of the recording’s more obvious characteristics here is the way that electronic delays afford laminar textures, making it possible to extend relatively short events from even the voice and trumpet, that would otherwise require breaths, and from the violin, that would need to change the bow direction. The track ends with the violin mixing arpeggios of the harmonic series, repeated bowings, and the use of *portamenti* and wide vibrato.

In reviewing the performance—ostensibly only selected parts of which appear on the
album—critics identified some of the group’s significant hallmarks by lamenting their relative absence here. Kuniharu Akiyama noted that aspects of the performance, unlike the group’s earlier work, were “somewhat egocentric.”95 Likewise, Yuji Takahashi noted, “[T]he members of the group, who used to enjoy making sounds by breaking tree branches or hitting stones against each other, have now learned to play instruments bound by pre-made scales and conventional techniques, such as the guitar, or the Iranian santoor, and they value the virtuosity or stamina of their performance more than the unique discovery of sound by their own ears.”96 For these critics at least, what was significant and distinctive about the ensemble was their selfless, collective way of experimenting with sound, in sharp distinction from the normally prized mastery of musical materials and instrumental technique demonstrated by virtuoso soloists.

Comparing their 1960 writings, one sees that while Tone had characterized the significance of the Music Group by describing the procedural contrast from classical musique concrète lying in the recording of collective improvisations but with the same sort of teleological product, Kosugi had instead highlighted the importance of the process over the product, and the Taj Mahal Travellers illustrate this aspect by emphasizing the performative aspect of their practice, with recordings serving to document performances rather than to serve as the goal itself. Although the Music Group’s “Metaplasm 9-15” references the date of its recording, the titles of both the Taj Mahal Travellers’ album July 15, 1972 as well as the pieces contained therein reflect this documentary nature to a much greater extent: the pieces are respectively entitled, “The Taj-Mahal Travellers Between 6:20–6:46 p.m.,” “The Taj-Mahal Travellers Between 7:03–7:15

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p.m.,” and “The Taj-Mahal Travellers Between 7:50–8:05 p.m.” Moreover, audio recordings of the Travellers’s concerts fail to convey sensorial aspects seemingly integral to their performances, like the projection of films, incorporation of light shows, the burning of incense, and the performative act of vigorous tree-branch shaking.

A month after their Sogetsu Hall performance, the Taj Mahal Travellers—comprising only Kosugi, Koike, and Tsuchiya—would perform at the Roundhouse in London as part of ICES 72, the International Carnival of Experimental Sound. ICES 72, produced by Harvey Matusow, is remembered both for bringing together an amazing assortment of experimental musicians—including John Cage, David Tudor, Charlotte Moorman, Cornelius Cardew, John Tilbury, Anna (later Annea) Lockwood, the Sonic Arts Union, and the Portsmouth Sinfonia—and for not paying them. If some critics lamented that the Travellers had abandoned their earlier performative experiments, such a complaint was not registered by Lockwood, who recalled “the beauty of Kosugi and his Taj Mahal Travellers playing in layers of delays and reverb for hours, with film of waves rolling in behind them – gorgeous tone, and one of the loveliest uses of delays I’ve heard, still.”

Five days later, as part of the same festival, AMM would perform in the same place, like the Travellers in a stripped-down lineup—although for political rather than logistical reasons—consisting of tenor saxophonist Lou Gare and percussionist Eddie Prévost. Perhaps the organizers and audience were expecting a massive deluge of sound characteristic of AMM’s earlier work instead of the acoustic sax-and-drums duo that bore more surface similarities to free jazz; at the end of the performance there was, in Prévost’s words, “[N]othing. No applause, no cat-calls. Merely the empty sound of indifference.”

According to Gare,

98Eddie Prévost, “(Amidst) the Sounds of Indifference,” liner notes, *At the Roundhouse*, Anomalous ICES01.
Matusow himself gave the duo the backhanded compliment, “Nice jam, fellas.” Such a reception belied the import of the group, formed seven years earlier with, like the Music Group, the intention of no less than creating a new way of making music, or as Prévost would call it—significantly like Kosugi called the Travellers’—“meta-music.”

AMM was founded in 1965 by guitarist Keith Rowe, percussionist Eddie Prévost, saxophonist Lou Gare, and bassist Lawrence Sheaff. They were joined the following year by composer and pianist Cornelius Cardew. Like the Music Group, AMM set out to create an absolutely new music. Rowe, who remained in the group until 2004, says, “We wanted to make a form of music which had never existed ever before in the history of music.” Unlike the Music Group, however, AMM used not musique concrète as a model but rather jazz and free jazz, treating them initially as stylistic templates but later instead as inspirations for how to create a new form of music. Both Rowe and Prévost, the two most long-term members of the group, cite the influence of young, black, American musicians who had created a new form of music—jazz, and bebop in particular. Rowe and Prévost both realized the cultural imperative not merely to imitate the musical style of one’s inspirations but rather to reflect one’s own background, culture, lifestyle, and frames of reference within one’s music. Rowe says, “We were inspired by what black musicians had done: they . . . had invented a new kind of music called jazz, and we wanted to do that, but we were skinny white European kids; what did that mean?” Somewhat paradoxically, Prévost adduces jazz’s own aesthetic priority of asserting one’s

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99 Ibid.
100 Rowe would join the group for several performances in 2015, one of which is the subject of Chapter Six. That chapter also describes the circumstances surrounding his departure in 2004.
101 Phil Hopkins (director), David Sylvian et al., Amplified Gesture (Samadhisound, 2009).
102 Ibid.
103 Ibid.
individuality as the motive for AMM’s very divergence from jazz. Likewise noting the differences between the cultural and social milieus of the jazz musicians he idolized and his own, he says, “As young men in London in 1965, we ought to be doing something a bit different.”

He specifically cites the influence of Ornette Coleman and Albert Ayler, who emboldened the fledgling group by giving them the “permission to disobey” predominant musical practices. Rowe, however, was more inspired by his experience as a student in art school, where he learned that in developing as a painter, one’s uniqueness is of paramount importance. After being told by a professor he could not paint like Caravaggio, for “only Caravaggio can paint Caravaggio,” he suddenly found not only copying another’s painting style to be problematic, but also musically copying another jazz guitarist’s musical style. The musical ramifications of these realizations were profound for both the growth of AMM and Rowe’s unique approach to the guitar. In terms of the early development of AMM, Rowe says,

> Our point of departure was kind of free jazz. And within about six months, from about November 1965 to about June 1966, I think we pretty well ditched all the gestures, all appropriations that we took from jazz, but we retained its most important elements, that is, playing music which was created at that moment. Maybe AMM was one of the very first groups ever to exist that didn’t have a repertoire.

The absence of a repertoire is of course both a point in common with the Music Group (and the Taj Mahal Travellers) and a characteristic of subsequent practitioners of electroacoustic improvisation. In contrast with the Music Group, however, AMM’s members have been much more opaque regarding the origin and meaning of the ensemble’s name: Rowe, when asked about the name in an interview, responded, “The letters AMM stand for something, but as you probably

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104 Ibid.
106 Warburton, “Interview with Keith Rowe.”
107 Hopkins, Amplified Gesture.
Cardew famously described the way in which AMM was experimental, writing:

We are searching for sounds and for the responses that attach to them, rather than thinking them up, preparing them and producing them. The search is conducted in the medium of sound and the musician himself is at the heart of the experiment.¹⁰⁹

Cardew distinguishes AMM’s approach from the more traditional method of performance in which the production of sounds follows their imagining and preparation and which ostensibly is supposed to as near as possible approximate their imagined form. In this method, one would presumably want to exercise a significant degree of control over one’s materials to most accurately produce the intended sound. Cardew contrasts this attitude with that in which the performer’s control is lessened and the instruments acquire greater creative agency, reflecting the performers’ “open-ness to the totality of sounds.”¹¹⁰

AMM foregrounds instrumental agency both by fostering relationships with—rather than command over—their instruments, and by developing performance techniques that allow instruments to sound practically autonomously, with little direct performer intervention or control. These activities in turn problematize conceptions of musical instruments as fixed, static objects, as we will see. Cardew’s AMM associates concur with his assessment of the group, describing the ways in which this attitude manifests itself within their own practices. Eddie Prévost says, “[I]n the music we play we have a different relationship with the instrument. In other words, we’re not trying to command the instrument. We’re actually trying to explore the materials to see where they will lead.”¹¹¹ Prévost’s use of the word “relationship” is particularly significant, as it intimates that beyond the attenuation of one’s own will there is an attempt not to

¹⁰⁸ Warburton, “Interview with Keith Rowe.”
¹⁰⁹ Cardew, “Towards an Ethic of Improvisation.”
¹¹⁰ Ibid.
¹¹¹ Hopkins, Amplified Gesture.
treat the instrument merely as an object but to foster within it a subjective nature. He expands upon this notion: “[W]e’re looking to engage with the material to develop a relationship with it and indeed develop our own sensitivity and sensibilities through working in this case with objects that make sound, and that can obviously be extended to any other thing.”

The nature of this developing relationship not only reflects the distribution of creative agency to one’s musical instruments (and moreover, as Prévost suggests, to all things) but also illustrates the extent to which technique and instrument are intertwined. Prévost highlights these attributes while also foregrounding the material contingency inherent in his performance practice when he writes:

> I am looking—yes, hoping—that something unexpected will crop up. The gongs, chimes, bells, strings, skins and resonating boxes are a rich environment. You never know for sure what you will dig up. I bow, scrape, pluck and hit direct and glancing blows in my engagement with the materials with which I have to work... The point is to mix myself with this stuff. Make it something other than it seems. Make something other of myself too.

Prévost’s materials demonstrate their agency not only in their facilitation of unexpected and perhaps uncontrolled sounds, but in their power to change the player and not just be changed by the player.

Likewise, Rowe exhibits a similar relationship with both his table-top guitar and radio, particularly in the ways they afford instrumental agency. He argues that conventional guitar technique facilitates the guitar becoming an extension of the performer, while on the other hand, laying the guitar on a table can effect its relative autonomy, partaking of both an increased material contingency and creative agency. He says about the guitar, “If you’re a blues player or a jazz player it’s very much like you, who you are, what you’re about comes through and out through the guitar.”

One thinks of Charlie Parker’s famous adage, “If you don’t live it, it won’t

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112 Ibid.
114 Ibid.
come out your horn,”\textsuperscript{115} to which George Lewis adds, “The clear implication is that what you do 
live does come out of your horn.”\textsuperscript{116}

On the other hand, when laid flat, a guitar, more than conveying the experiences of its 
performer, demonstrates its own agency to a greater extent, Rowe argues: “When the guitar is on 
the table it’s much more detached in that sense. It’s much more reflective rather than expressive, 
it’s more reflecting an environment, the world . . . And that also allowed making long sounds.”\textsuperscript{117}
These “long sounds” differ significantly from sounds made possible by conventional technique, 
not only because of their duration and their lack of a typical plectral attack which strongly 
contributes to the identification of a typical guitar-like spectromorphology (both of which 
characteristics can efface the otherwise identifiable sonic character of the instrument and can 
thereby more readily allow it to participate in the formation of a new meta-instrument), but also 
because these long sounds can be made with very little or no direct manipulation by the 
performer. Imagine, for example, the wail from undamped strings transduced by electromagnetic 
pickups, highly amplified, and output through speakers that in turn form a feedback loop by 
exciting the strings. Or think of a fan placed above the strings so that the blades repeatedly and in 
quick succession strike the strings, while the pickups simultaneously capture not only the strings’ 
vibrations but also the whirr of the fan’s motor as its electromagnetic field oscillates 
continuously. In such cases—common in Rowe’s practice—sounds may to some extent depend 
on their initiation by the performer, but for the bulk of their duration they act relatively 
autonomously from the performer. They might even change without further input from the

\textsuperscript{115}Michael Levin and John S. Wilson, “No Bop Roots in Jazz: Parker,” \textit{Down Beat} 61, no. 2 (February 1994): 24– 
25; (originally published September 9, 1949).

\textsuperscript{116}George E. Lewis, \textit{A Power Stronger than Itself: The AACM and American Experimental Music} (Chicago: 
University of Chicago Press, 2008), 119.

\textsuperscript{117}Hopkins, \textit{Amplified Gesture}.
performer when, for example, the speaker’s feedback begins to excite a string’s upper harmonics more so than its fundamental, or when the motion of the fan striking the strings causes its own position to change and it now strikes the strings at a different angle. A similar lack of direct control over an instrument by the performer is evident in Rowe’s use of the radio, which he often allows to play for extended stretches without personally interfering with its autonomous operation. In fact, among the many reasons Rowe gives for his adoption of the radio qua musical instrument are that it is “independent,” provides “unpredictable content,” and “challenges the notion of authority that came from technique.”

A clear example of Rowe eliciting a “long sound” from his guitar as well as his use of a radio occurs at the beginning of “Radio Activity,” the aptly titled first track from *It had been an ordinary enough day in Pueblo, Colorado*, the 1980 album recorded with Prévost under the group name AMM III. The track begins with a long sound already in progress. Rowe later adds a radio to the proceedings, and as it and the long sound continue, he makes it clear that both are operating independently of him when he begins simultaneously playing another guitar more traditionally. Instrumental independence, unpredictability, and abandonment of technique—all of which are among Rowe’s desiderata—are clearly and intentionally at odds with traditional practices that seek to make the instrument as wholly as possible dependent on the performer and offer predictable responses to given input, and that bestow authority on performers that demonstrate superior technique.

Rowe further problematizes traditional conceptions that describe musical instruments as fixed and self-contained objects when, for example, he places the radio above the guitar’s pickups, which then respond to the electromagnetic field of the radio’s speaker. The radio, while physically separated in space from the guitar, now becomes associated with the guitar, and the

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118 Rowe, “Above and Beyond.”
guitar’s pickups, effects pedals, and amplifier in turn significantly color the radio’s signal. This modular aspect is in fact another of the reasons Rowe gives for his use of the radio. Through the lens of modularity one can identify Rowe himself as well as his guitar, radio, picks, bows, eBows, motors, preparations, effects pedals, and amplifier all as modules in his instrumentarium. One might go a step further and examine the distinct component parts of the guitar—its strings, pickups, body, etc.—as individual modules. Looked at in this light, it is clear that all of these modules, their arrangement, and their associations with each other are not permanently fixed but are in flux, and therefore too is the instrumentarium as a whole. The practices of many electroacoustic improvisers illustrate such a concept of a modular instrumentarium, one to which we will return.

AMM’s embrace of long sounds, alongside material contingency and the attenuation of the performer’s control over one’s instrument, facilitates a mode of performance in which the individual contributions of each musician are of considerably less significance than their total combination, one which Evan Parker has called a “laminar” approach. 119 The individual contributions may be difficult or even impossible to isolate from the ensemble texture, not only for the audience but for the performers as well. Indeed, Cardew notes this precise characteristic: “as individuals we were absorbed into a composite activity in which solo-playing and any kind of virtuosity were relatively insignificant.” 120 The composite activity replaces more individualistic or atomistic modes of improvisation practiced not only by jazz and free jazz musicians but also by other contemporaneous British improvising groups such as the

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119 “The description of AMM’s music as ‘laminar’ came from Evan Parker, in a lecture he gave on improvisation during an Actual Music Festival at the ICA in London during August 1980.” (Eddie Prévost, liner notes to AMM, Laminal, Matchless MRCD31, 1995)
120 Cardew, “Towards an Ethic of Improvisation.”
Spontaneous Music Ensemble. Whereas the burgeoning practices of groups like the latter could resemble the work of multiple simultaneous soloists, AMM was instead, as Rowe has suggested, more akin to several accompanists without a soloist. In superseding such models AMM, like the Music Group, demonstrated the formation of the ensemble’s “new individuality.” This new individuality might be reflected in AMM’s philosophy—articulated later when the group had solidified into a trio of Prévost, Rowe, and pianist John Tilbury—that three is four: “the three players plus the group is four,” as Rowe says.121

Further fostering this situation—what Matthieu Saladin refers to as the “désidentification des individualités sonores” (“disidentification of sonic individualities”)122—are the use of a multiplicity of sound sources, high levels of amplification, and the ritual of performing in near or total darkness, all characteristics especially of early AMM performances and which might furthermore facilitate the acousmatic situation. Cardew describes this attribute while suggesting that a sonic composite supplants individual lines: “This proliferation of sound sources in such a confined space produced a situation where it was often impossible to tell who was producing which sounds—or rather which portions of the single roomfilling deluge of sound.”123 This torrent, this “new individuality” resulting from the group’s composite activity, encourages another conception of instrumentality, one of a compound meta-instrument, contained to some extent by the room in which the performance occurs, and including each performer and their respective instrumentaria as modular components.124 Compare this situation with that of the Taj

121 Warburton, “Interview with Keith Rowe.”
123 Cardew, “Towards an Ethic of Improvisation.”
124 Even in solo performances and recordings, electroacoustic improvisers often note the significance of rooms, suggesting they might be considered part of an enlarged concept of musical instruments. Note, for example, how Rowe describes the difference between playing solo as opposed to playing in a duo or trio: “If you are on your own the room is quite complex and you are absorbing everything in the room,” whereas “The room is apparently a more complex room if you’ve got two or three [performers],” in which case one’s ability to listen to everything
Mahal Travellers; the confined space and high levels of amplification in AMM performances create the effect of a sonic totality not dissimilar to the application of delays and amplification in Taj Mahal Travellers performances.

Within this sonically dense composite activity, and in their search for sounds conducted in the medium of sound, “[T]he AMM musicians were tracking the sounds, in the way that a hunter tracks an animal.”125 The hunter does not engender the animal; neither then, in this analogy, is the performer’s primary relationship with sounds that of creator but rather that of observer. The focus shifts from the act of playing towards the act of listening. Indeed, the frequent density and nigh-impenetrability of AMM’s early performances practically demanded such a shift. Tilbury notes, “Sometimes the only way the performer himself could determine the nature of his own contribution would be to stop his activity and try to identify the difference; thus the musician’s own relation to the music he was creating took on a speculative aspect.”126

This speculative aspect requires that one prioritize listening above playing, going so far as to suggest that one stop playing completely in order to better facilitate listening. In an oft-cited

is limited (John Eyles, “Keith Rowe: One Bird Flying Through,” All About Jazz, September 2, 2009, http://www.allaboutjazz.com/php/article.php?id=33846&pg=1). In his 1971 manifesto Cardew argues that AMM’s music is “derived from the room in which it is taking place – its size, shape, acoustical properties, even the view from the window” (Cardew, “Towards an Ethic of Improvisation”). The room is not merely a container for the musicians, instruments, and audience, nor does it only passively add a sheen of reverberation to the music already occurring within it, but it actively influences the creation of the music. Although Cardew makes this statement as part of an argument against the recording of improvised music, a point explored in depth by David Grubbs (Records Ruin the Landscape: John Cage, the Sixties, and Sound Recording [Durham, NC: Duke University Press, 2014]), Rowe musically responds to this statement, somewhat ironically, in his recordings A View From the Window (with Axel Dörner and Franz Hautzinger, 2004) and The Room (2007). The latter, in tribute to both Cardew and Mark Rothko, is a culmination of a preoccupation with “atmosphere, in particular the kind of atmosphere that one finds surrounding a Mark Rothko painting” (Keith Rowe, liner notes for Duos for Doris, Keith Rowe and John Tilbury, Erstwhile 030, 2003). Regarding his and Tilbury’s 2003 collaborative recording Duos for Doris, Rowe writes, “I wanted to move what I’m doing (intention) towards this notion of atmosphere, an activity where we’re not aware of technique, of instrument, of playing, of music even, but instead as feeling/sensation suspended in space, perhaps what Feldman meant by music as time, energising the air, making the silence (unintention) audible” (ibid.).

126 Ibid., 300.
conversation with Rowe and Prévost, Christopher Hobbs, who played with AMM in the late 1960s and appears on both *The Crypt* and the first disc of *Laminal*, says, “One of the nice things about the Crypt record is that it’s quite impossible much of the time to tell who on earth is doing what,” to which Rowe replies, “And what is doing what!”\(^{127}\) This exchange pointedly reveals at once two of the most germane aspects of AMM’s practice: its frequently noted focus on ensemble texture rather than individual contributions, and what is here especially significant, the cultivation of instrumental agency. In AMM’s music, the what that is doing is often just as important as the who that is doing; the instruments frequently have as much agency as the performers.

This instrumental agency and concomitant ceding of performer control is not only characteristic of electronically assisted instruments but is obvious as well in Tilbury’s relationship with the piano. Tilbury, who in addition to performing with AMM is a prominent interpreter of Morton Feldman’s music, argues that pianists demonstrate a relative lack of control over their instruments. He writes:

> With the great Feldman players, like David Tudor and Cardew, it is the dialectic of, on the one hand, the extreme fingertip sensitivity and control – embodying the notion of intention – and on the other hand the recognition, through an awareness of the contingent, of the ultimate impossibility, indeed the undesirability of control. Intimately, at close quarters, as it were, the performer experiences the vulnerability of intention and the inevitability, and acceptance, of failure.\(^{128}\)

Feldman’s music in particular highlights the contingent by calling for extremely soft dynamics, which are exceptionally difficult to produce consistently; Tilbury suggests that the acceptance of such contingencies is in fact desirable. Regarding Tilbury’s own approach to piano performance,

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his student and fellow electroacoustic improviser Sebastian Lexer notes perceptively, “He considers the act of striking the piano key as an attempt to control that accepts the contingencies of the activity – rather than to minimise uncontrollable factors. As soon as the hammer has left the repetition lever on its way towards the string, the pianist is stripped of any further control but to release the key or pedal to silence the string with the damper. Everything happening within the duration of the sound is highly contingent, but potentially goes unnoticed by an inattentive listener.”\(^{129}\) Tilbury moreover argues that pianists deal with contingency in another significant way, saying, “Being a pianist is a truly experimental profession because you can’t take your instrument with you.”\(^{130}\) A pianist might be unfamiliar with the instrument on which she is to perform and so may not accurately predict how the piano will respond to her gestures, and while this consideration is always a factor to pianists, Tilbury (and other experimental pianists) attempt to foreground rather than ignore or minimize it.

We might attempt to summarize some salient and interconnected characteristics of AMM’s practice by noting, in addition to improvisation, the formative influence of electronics and the concomitant affordance of long tones; the creation of a laminar, cohesive group sound rather than simultaneous soloists; the prioritization of listening above playing; and the embrace of contingency.

If AMM’s brand of meta-music had, as Prevost argues, “no legitimate lineage or tradition,”\(^{131}\) it would nevertheless create one—eventually. In the years following AMM’s


\(^{130}\) Hopkins, *Amplified Gesture*.

founding, other groups—including MEV and Voice Crack—engaged in practices similar to AMM’s, yet many were slow to do so, leading Prévost to remark in 1982, “What’s certainly perplexing is that really, apart from Musica Elettronica Viva, there have been very few manifestations of the kind of group which use, to use Evan Parker’s term, a ‘laminal’ approach; layered textures … I mean, why don’t we have lots of imitators?” Practices of electroacoustic improvisation truly flourished transnationally beginning in the mid/late-1990s, variously in response to such things as new technologies like more powerful laptops that afforded live musical performance, predominant modes of improvisation, increasingly wide distribution and easier access to historically and musically significant recordings, internet-fueled discussion, encounters on stage and in the studio, and the growth of venues, festivals, and labels that fostered experimental approaches to music-making. Significant communities of improvisers addressing similar musical concerns developed in places including Berlin, Boston, London, Tokyo, and Vienna. Rather than presenting a chronological, historical survey of the growth of these communities and the musical encounters of their members, this section briefly outlines the ways that younger generations of improvisers embody and carry forward some of the distinctive characteristics explored in the practices of the Music Group and AMM.

Mark Wastell, as both an improviser and the owner of the influential London record store Sound323, is uniquely situated to describe the latter-day growth of the practice of electroacoustic improvisation. He asserts that the movement directly emerges from the development of digital music. He says, “I do think that it is music informed by the digital era. The musicians have digital ears. By that I mean the contemporary players are listening to forms of music that did not exist 10 or so years ago: pre-and post-electronica, digital sound arts, the post-techno scene,

digital musique concrète, live laptop sound processing.” Despite the influence of new
technologies and their accessibility, Wastell notes that the practices of contemporary
electroacoustic improvisers are clearly shared with AMM, arguing, “AMM have always been a
digital group, it’s just taken the rest of the world 30 years to catch up.” How, then, do younger
electroacoustic improvisers describe their practices? As in the praxes of the Music Group and
AMM, several interrelated themes emerge, including the influence of electronics, the
prioritization of listening, and the minimization of ego and intention through loss of control.

As noted in the introduction to this chapter, many electroacoustic improvisers cite the
importance of electronic music to their individual creative attitudes. Harpist Rhodri Davies, for
example, writes that for the musical development of his generation of improvisers based in
London and Berlin, “The influence of electronic music was important. We were searching for
timbral sounds that were electronic sounding but acoustically produced, white noise, and filtered
sounds like breath and air.” Such a description clearly recalls both Rowe’s description of a
developing European school of improvisers attempting to create electronic sounds with acoustic
instruments as well as Bhob Rainey’s previously mentioned assertion, “I can’t tell you how many
times people told me that they were trying to sound like ‘electronic music.’” Saxophonist John
Butcher likewise explicitly cites electronic music’s influence, saying, “Some of the stimulation I

134 Ibid. Curiously, although many in the younger generation of improvisers employ laptops, when Rowe was asked
if he was using a laptop to make music, he replied, “I don’t very much. When I first got it, I tried using it but it
was so slow. Maybe it was just me, but it seemed really really slow...I wouldn’t rule out using the sound
capabilities at some point, but just at the moment I find it slow” (Ronsen, “Interview with Keith Rowe”).
Furthermore, when Rowe has used a laptop in performances, he has used Reaktor not to synthesize or process
sound but rather as a CPU load in order to activate the computer’s fan, thereby creating a changing
electromagnetic field to be transduced by an electromagnetic pickup (Mark Flaum, “AMPLIFY 2008: light,”
Selbstbestimmung einer Szene / Self-Defining a Scene (Hofheim: Wolke Verlag, 2011), 70.
136 Rainey, “Re: EAI: Roots and Influences.”
got for directions I went in on the saxophone came from listening to early electronic music...’50s and ’60s tape music, the kind of possibility of juxtaposing extremely different kinds of sounds.137 Graham Halliwell points specifically to the influence of Éliane Radigue’s long, timbrally rich and slowly evolving analog tones on his own work involving saxophone feedback, noting that in his practice, “It’s as if everything – saxophone, microphone, speakers and room acoustics – merges into one extended instrument.”138 In his incorporation of electronic devices into his instrument not only does Halliwell illustrate the influence of electronic music—particularly Radigue’s—on his own practice but also the development of an expanded concept of instruments, the “extended instrument” like a modular instrumentarium comprising not only the conventional saxophone but also a microphone, speakers, and the acoustic properties of particular rooms.

In describing their practices, several electroacoustic improvisers also cite the priority of listening above playing. Guitarist and turntablism Otomo Yoshihide (a subject of Chapter Four), when asked by Davies, “What are you doing with your music?” answers that he is “Listen[ing] to the non-existent things that may exist in the future.”139 Toshimaru Nakamura, who performs on the “no-input mixing board,” states, “Listening is the major part of playing music. First you have to listen.”140 Sampler artist Sachiko M (another subject of Chapter Four), characterizing the practices of her fellow improvisers in the so-called onkyō school of Tokyo-based musicians, says, “[F]ocuses are on hearing the sound, not physically playing musical instruments.”141 And Xavier

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137 Hopkins, Amplified Gesture.
139 Otomo Yoshihide, “What are you doing with your music?” in Marley and Wastell (eds.), Blocks of Consciousness, 8.
141 Clive Bell, “Ah, the Sweet Torture: Sachiko M,” in Marley and Wastell (eds.), Blocks of Consciousness, 70.
Charles, who performs on clarinet and vibrating surfaces, writes, “It’s through listening, therefore, particularly trying to find out how to listen, that my own practice has taken shape and enriched itself.”

Finally, numerous contemporary electroacoustic improvisers cite the significance of removing one’s own intention and control by embracing instrumental agency. Percussionist Sean Meehan, for example, clearly attempts to circumvent his own intentionality, describing his practice as “a heightened sense of awareness rather than a goal or intention, a ‘doing’. It is without a desire to inflict or alter.” Otomo, in addition to similarly questioning the role of intentionality in his work, further cites the significance of unexpected outcomes arising from instrumental agency. He says, “It’s far more interesting when the unexpected occurs, and it doesn’t work if I do it by myself. If I do a solo with my guitar, it’d be nothing more than what I do. So I love making a machine run wild or getting feedback on a guitar because I can’t control them.”

He suggests that improvising with other people is not about control and thus requires embracing chance: one can not control what one’s playing partner does, and so one must welcome the unexpected. This characterization calls to mind several of Cardew’s “Virtues that a musician can develop:” selflessness, forbearance (“accept[ing] not only the frailties of your fellow musicians, but also you own”), and preparedness (“for no matter what eventuality”). Otomo attempts to cultivate the unexpected and the attenuation of control even when playing solo: he says, “I try to create an uncontrollable factor when I play solo.” Fellow turntablist Maria Chavez also makes chance and randomness central aspects of her work. She, like Otomo,

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142 Xavier Charles, “What are you doing with your music?” in Marley and Wastell (eds.), *Blocks of Consciousness*, 88.
144 Cardew, “Towards an Ethic of Improvisation.”
cultivates the dynamic and the uncontrollable in her use of the turntable, saying, “I think that’s why I love the turntable so much. It’s not stable.”\textsuperscript{146} Also like Otomo, she fosters contextual contingency and the improvisational imperative it affords: “Once I sit to perform, I enjoy creating unstable situations...the goal is to encourage the present moment to dictate the sound pieces.”\textsuperscript{147}

Nakamura, who had previously been a guitarist, exhibits a similar approach in his adoption of the no-input mixing board as his primary instrument. The no-input mixing board consists of a mixing board used without any external sound input and whose outputs are fed back into its inputs, creating complex, often unpredictable feedback loops. In performance Nakamura often augments the mixing board with several guitar effects pedals. Nakamura, like Prévost, describes his choice of instrument in terms of a relationship.

I find an equal relationship with no-input mixing board, which I didn’t see with the guitar. When I played the guitar, "I" had to play the guitar. But with the mixing board, the machine would play me and the music would play the other two, and I would do something or maybe nothing. I would think some people would play the guitar and create their music with this kind of attitude, but for me, no-input mixing board gives me this equal relationship between the music, including the space, the instrument, and me.\textsuperscript{148}

Thus Nakamura, too, clearly illustrates the primary place that instrumental mutability and distributed agency\textsuperscript{149} have in his performance practice, again suggesting that the relationship he

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\textsuperscript{147}Daniel Neumann, “The Turntable Just Happened to be There – Chance and Turntablism(s),” \textit{eContact!} 14.3 (January 2013), http://econtact.ca/14_3/neumann_chavez.html.
\textsuperscript{149}Georgina Born is largely responsible for the currency of this term. In her 2005 article, “On Musical Mediation: Ontology, Technology and Creativity,” she traces some of the ways in which musical creativity may be distributed not only among “subjects” and “objects”—or human and non-human actors—but across space and time. Among other examples she gives is that of George Lewis’s \textit{Voyager}, an improvising computer program that not only problematizes clear-cut boundaries between composition, improvisation, instrument design, and programming, but demonstrates how creative agency may be distributed among a (typically human) performer and a piece of software.
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fosters with his instrument facilitates the instrument’s own subjectivity.

While there does not seem to be a strong direct line of influence extending from Group Ongaku to the onkyō musicians, for instance, the similarity in their approaches is readily apparent. Otomo Yoshihide notes this resemblance, saying, “I wasn’t directly influenced by the work of Tone or Group Ongaku . . . [but] some of their concepts were similar to the current ideas of Taku Sugimoto and Sachiko M.” And indeed Yasunao Tone has more recently performed with Otomo and Sachiko on several occasions, including at Otomo’s April 2015 residency at The Stone, a different set from which is the subject of Chapter Four.

On the other hand, clear lines of influence extend from AMM to younger improvisers, as noted by Wastell among many others. Olivia Block, for instance, cites the importance on her development of AMM’s performance in Houston (apparently the performance on April 19, 1996, later released on the CD Before driving to the chapel we took coffee with Rick and Jennifer Reed. Furthermore, the AMM musicians have performed and recorded with many of these improvisers, including Toshimaru Nakamura and Sachiko M, with Rowe’s increasingly prolific collaborations documented on the Erstwhile label in particular. Significantly, Rowe says that when first encountering younger Japanese improvisers they met on equal footing. When Rowe met Nakamura, “[I]t was like meeting a brother, a musical brother and we just clicked.” The chain of influence is in some cases reciprocal. Rowe cites the idea of permission in discussing his relationship with Taku Sugimoto, for instance: “[W]hen I heard Taku’s recording

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151 Matchless MRCD35, 1996.
153 Olivia Block, e-mail message to author, November 6, 2015.
for the first time, it was like a permission to think about doing that.”

In examining the development of electroacoustic improvisation as a practice by focusing on the Music Group and AMM, I have identified some salient characteristics as exhibited in these groups and noted how these attributes—including the prioritization of listening above playing, the cultivation of instrumental agency and mutability, and the creation of a group sound in lieu of a multiplicity of soloists—inform the similar practices of subsequent electroacoustic improvisers. Now we turn to specific performances of electroacoustic improvisation, investigating them to understand how these characterizations reveal themselves in actual practice.

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155 Ibid. This is perhaps intentionally suggestive of Feldman’s characterization of Cage’s influence on him: “The main influence from Cage was a green light. It was permission, the freedom to do what I wanted.” (“I Met Heine on the Rue Fürstenburg,” Buffalo Evening News, April 21, 1973, reprinted in B.H. Friedman [ed.], Give My Regards to Eighth Street: Collected Writings of Morton Feldman [Cambridge, MA: Exact Change, 2004], 112–121.) Also, recall Eddie Prévost citing the examples of Ornette Coleman and Albert Ayler for the “permission to disobey” hegemonic musical practices.
Chapter Four
Otomo Yoshihide and Sachiko M at The Stone, April 14, 2015

As the doors open ten minutes before the announced performance time, the twenty-two people waiting in line on the sidewalk outside The Stone—John Zorn’s East Village haven for experimental music—match the audience demographic often typical of shows of this ilk: all are male, and most are white. By the time the performance starts twenty minutes later, the audience has grown in size to about fifty and in diversity to include at least ten women. The performance area—there is no stage *per se*—features two tables opposite one another, separated by a space of several feet that doubles as an aisle allowing audience members to get to the bathroom (located directly adjacent to the performance area) or to the rear seating section. The table to the left presumably holds electronic equipment, but a cloth placed atop it shields this from view; recognizable is only a Crown pressure zone microphone on the near corner of the table, which microphone is connected via a cable to a recording rig manned by Hideki Kato, who will be recording all of the performances during Otomo Yoshihide’s weeklong residency here. On the other table, in addition to a matching pressure zone microphone, are a Technics SL-1200 turntable and a Rane Empath 10 DJ mixer (both borrowed from turntablist Marina Rosenfeld), an eBow, a cylindrical device holding a contact microphone, and several small mint tins, one of which is in a later performance revealed to contain alligator clips (to be used as guitar preparations) while another holds guitar picks. Beneath the table are several effects pedals, including a Boss Metal Zone, Ibanez Tube Screamer, Klon KTR, Boss Volume, and Boss Digital Delay, which form the central part of a chain between a Gibson ES-175 hollowbody electric
guitar (once owned by Otomo’s former teacher Masayuki Takayanagi) and a Fender Deluxe Reverb amplifier.

Ten minutes past eight o’clock, Otomo and Sachiko M emerge from the basement-cum-backstage (the smell of which, Otomo would write in a later blog post, is that of sewage) and assume their positions, Sachiko M to the left and Otomo to the right. Sachiko M removes the cloth to reveal her usual setup, comprising an Akai S20 sampler (whose preset sine wave is the only sample she uses), two Fostex TT-15 test tone oscillators, and an Audio Technica AT-PMX5P mixer. The mixer is connected not only to the main amplifier and loudspeakers—shared by Otomo—but also to headphones that lie on the table in front of Sachiko’s other equipment and whose purpose is not immediately obvious. While the frequency of the Akai S20’s sine wave is
variable over a large range, the Fostex oscillators are each intended to only produce a sine tone at

one of five different fixed frequencies: 40 Hz, 400 Hz, 1 kHz, 10 kHz, and 15 kHz. Furthermore, while the sampler has a continuous volume control, the oscillators each only allow three possible, set volume settings.

The loudspeakers are positioned alongside the right wall so that while from Sachiko’s position they function as a typical stereo pair, from the main audience seating area they act less
as left and right speakers and more as far and near speakers (see Figure 4.3). The performers take

![Diagram of the performance area at The Stone for Otomo Yoshihide and Sachiko M’s performance.](image)

their respective positions and after a pause sufficiently long to be awkward the audience applauds.
Section 1

The performance begins with Otomo casually placing the needle on the turntable with his right hand and then turning up the volume control on the mixer with his left to make the turntable audible. The turntable, however, has no record, and the resulting sound is a seven-second block of slowly undulating lowpass-filtered noise, stippled with four transients. And then there is silence. After a few seconds, the turntable sounds again; now the block of noise is much lower in amplitude and serves as a background texture above which low-frequency pops stand out, initially in a slow ostinato at a tempo around 45 beats per minute—obviously related to the turntable’s speed of 45 revolutions per minute—and then in unpredictable rat-a-tat bursts. The turntable solo fades out twenty-five seconds after it begins. Whereas Otomo’s posture and motions are nonchalant, Sachiko’s are austere, her body like an actor’s in a Robert Wilson production: upright, with every movement deliberate and studied. Her musical entrance, in contrast, is sudden, unannounced by obvious physical gestures. Unsurprisingly to those familiar with her work, her first sound is a sine wave, around 11390 Hz and just a staccato blip lasting a mere 40 milliseconds, followed a second later by a longer tone around 9500 Hz and lasting a second and a half. Again there is silence.

Thus are we, in the first minute of the performance, introduced to both the basic motivic materials and the numerous dichotomies that will be developed over the course of the performance: broadband noise versus sine tones, sustained sounds versus transients, the presence of a quasi-regular 45 bpm pulse versus its absence, Sachiko versus Otomo, and sound versus

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156 Section marks are included in attempt to clearly present ways of hearing large-scale form in these performances but with caveats: doing so necessarily involves making subjective decisions, and oftentimes sectional boundaries are blurred by musical material that bridges successive sections. (An instructive example might be the formal divisions of AMM albums into individual and distinctly named tracks. Although not pursued here, it would be interesting to note the ways by which the musicians themselves decide to partition live performances in post-production.) See Figure 4.8 on page 98 for a spectrogram with these heard sectional boundaries added.
silence. Moreover, Sachiko’s first two sine tones are at frequency ranges (roughly 9300–9700 Hz and 11000–11700 Hz) that will recur conspicuously throughout the present performance. Therefore, despite the apparent ways in which Sachiko and Otomo radically depart from traditional practices of Western music, they here somewhat paradoxically clearly suggest a few of the most classically prized values of Western music composition, economy of means and motivic development.

The frequencies of Sachiko’s first two tones are notable for a few reasons: both are above the frequency (roughly 5 kHz) at which the sense of pitch begins to disappear, and both are in the same ranges as those that occur prominently in other of her performances. Both here and in video recordings, it appears that she elicits these tones from a Fostex TT-15 oscillator by simultaneously partially depressing multiple buttons. Thus, while the sonic palette afforded by the oscillator remains extremely limited, by “playing” it in this way Sachiko at once employs both bricolage and a type of extended technique.

Significantly, in this performance—as the first minute already suggests—frequency range, spectral spread, and duration are of considerable significance, more so than precise harmonic, melodic, and rhythmic relationships, and in this respect the performance differs from much conventional music. Thus, although certain recurring rhythms characterize the performance and do not translate well to spectrograms (graphical representations of spectral content over time), it is remarkable the extent to which spectrograms correspond to the aural perception of the performance, much more so than they do in most other musical practices.158

157 For instance, both these approximate frequencies—as well as a third, around 13kHz, which she will use conspicuously in the final section of this performance—figure prominently in her performance with vocalist Ami Yoshida (as Cosmos) at the AMPLIFY 2002 festival, released on compact disc as CD 3—festival on the AMPLIFY 2002: balance box set (Erstwhile 033-040, 2003). See https://www.youtube.com/watch?v=O1ACMELPbg.

158 Indeed, even spectrograms of performances using similar practices are not necessarily enlightening. For instance,
Figure 4.4 is a spectrogram of the entire performance, and it makes clear such important qualities as frequency range, spectral spread, relative duration, and use of silence. (See Figure 4.8 on page 98 for a similar spectrogram to which perceived section boundaries have been added.)

while spectrograms of this performance are particularly instructive, spectrograms of the following analyzed performances are not especially insightful and thus are not used.
After the introduction of the initial motivic material, there are three seconds of silence before Otomo articulates another short burst of lowpass-filtered noise, after which Sachiko enters immediately with a tone at the same frequency as her last, this time sustaining it for five seconds. One is tempted to hear Sachiko’s tone as a response, but here—to a greater extent than in other improvisational practices connected more closely with call-and-response interaction—proximity

Figure 4.4: Spectrogram of Otomo Yoshihide and Sachiko M’s entire performance at The Stone on April 14, 2015. In this performance—contrary to many conventional musical practices—frequency range, spectral spread, and duration are of relatively more importance than precise pitch and rhythmic relationships, and thus these spectrograms more faithfully describe what is heard than do spectrograms of much other music. Clearly obvious, for instance, are the contrasts between sine tones and broadband noise, the relative duration of events and in particular the several very long sine tones, and the use of silence. (Note that in this and the following spectrograms, the frequency range, shown on the y axis, is from 0 to 22050 Hz [half of the recording device’s sampling rate], and the duration, shown on the x axis, is in this excerpt from 0 to 2723 seconds [that is, 45 minutes and 23 seconds], and includes applause at the end, shown as a sustained broadband noisy texture.)
and correlation do not necessarily indicate causation, and it is not entirely clear whether Sachiko intends to respond to or answer Otomo’s noise-burst. During Sachiko’s tone Otomo now sounds a second-long burst of lowpass-filtered noise, using his right hand to position the turntable arm and his left to control the mixer’s volume and panning knobs. A few more seconds of silence are interrupted only by the sounds of a chair leg striking the floor, a chair creaking, and a muffled conversation from the sidewalk outside the building, the first of many “non-intentional sounds” that will enter into the performance. These “non-intentional” sounds are notably important to electro-acoustic improvisational performance practice, particularly that of Japanese improvisers of the onkyō movement including Otomo and Sachiko (see sidebar).

**Sidebar: Listening practices and non-intentional sounds**

As Lorraine Plourde makes clear, in onkyō listening practices cultivated at Tokyo venues like Off Site, “non-intentional” sounds during quiet or “silent” parts of performances have a significant role in the music as a whole, and performers and audience alike concentrate on many of these sounds as intently as they do to the intentional, performed sounds.\(^{159}\) With some exceptions, performers welcome these non-intentional sounds into their music, and audiences do likewise.\(^{160}\) As an example of the latter, one regular onkyō audience member, who prefers to listen with her eyes closed, says, “When I close my eyes I try to get rid of these types of associations, such as ‘this is the sound of a chair,’ etc., as much as possible.”\(^{161}\) Thus this listener is focusing on every sound and actively avoiding referents, whether or not these sounds

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\(^{160}\) One is reminded of John Cage’s assertion: “The way to test modern painting is this: If it is not destroyed by the action of shadows it is a genuine oil painting. A cough or a baby cry will not ruin a good piece of modern music” (John Cage, *Silence: Lectures and Writings* [Middletown, CT: Wesleyan University Press, 1961], 160).

\(^{161}\) Plourde, “Disciplined Listening,” 228.
are created by the performers, and is thus attempting to engage in Schaefferian reduced listening. While as I have suggested earlier it is clear that sounds interact with indicative networks extending far beyond only source/cause relationships, what is significant here is that the listener is not merely associating sounds with their sources and causes but is, either instead of or perhaps in addition to any reflexive responses, concentrating on the material and aesthetic qualities of sounds as they are perceived. Thus, in this example, the listener is certainly at some level immediately aware that the sound is coming from a chair, but the “chairness” of the sound is not of primary importance. Likewise, the sounds that spurred this discussion—a chair scraping the floor, a chair creaking, and a conversation—immediately suggest their sources to me, and in fact to describe these sounds while avoiding mentioning their sources would seem counterintuitive and silly. However, in hearing these sounds I am aware not only of their sources but also of their sonic attributes, how they change in time, what motions they imply, and, crucially, the ways in which they relate to the intentional sounds of the performers. For—significantly—these listening practices in turn inform the performance practices of the musicians. Otomo, for example, suggests that the types of listening his colleagues engage in and the music that results from these would not have been possible without the dedicated listening habits cultivated specifically at the venue Off Site.162 Sachiko also highlights both the improvised listening habits of audiences and the consequent effect these habits have on the music, saying, “I think listeners have discovered for themselves that it’s interesting to hear this kind of music in this way.”163 She continues, “Their auras sort of lean forward, and I think the attitude of quietness is the result of that.” At the present performance, three listeners sit opposite

162 Ibid., 283.
the main seating area on the far side of the performers, and their postures are clearly visible to me. One young man sits upright and motionless, his hands folded neatly on his lap and his eyes closed. Another shifts his gaze from Otomo to Sachiko, occasionally glancing elsewhere, tousling his hair, or adjusting his seat. A young woman leans forward, alternately holding her hair in front of her face, with one closed eye just barely visible and her elbow resting on her crossed knee, or remaining still but intently watching the performers. What these listeners illustrate is a tendency, during performances of electroacoustic improvisation, to close one’s eyes, perhaps to better concentrate on the subtle nuances of the sounds, whether intentional or not. In light of this discussion, it is unsurprising that non-intentional sounds play an important role in this performance by Otomo Yoshihide and Sachiko M.

After a quick volley of high-frequency sine blips and turntable pops punctuating a low-amplitude background wash of turntable noise, Sachiko sustains a tone that begins roughly where her previous sustained tone left off, around 9500 Hz, but quickly and abruptly moves to 11,190 Hz for four seconds (during which a chair creaks loudly) before descending again to around 9400 Hz, where it remains for eight seconds. While this tone is sustaining, the sounds of a police siren and an accelerating truck on the street outside the venue enter into the performance. These external sounds seize the sonic foreground when Sachiko’s sine tone drops out, and they become even more prominent when Otomo cuts the volume of the turntable, leaving the sounds of vehicle engines and emergency sirens to dominate the performance for a full sixteen seconds of would-be silence, while Otomo deliberately places a cylindrical contraption containing a contact microphone around the spindle of the moving turntable without turning on the volume of the microphone. Sachiko finally adds to this vehicular dialogue a brief
tone around 9740 Hz and then five seconds later a longer tone beginning around 11240 Hz, rising over sixteen seconds to 11650 Hz, and gradually descending over sixteen seconds to 11470 Hz. Curiously, this minute change in frequency is practically imperceptible on hearing alone and is only confirmed by later spectral analysis. As it turns out, extremely subtle frequency changes characterize many of Sachiko’s long sine tones, and while this drift is usually not obvious, it simultaneously suggests two otherwise hidden aspects of the instrument. First, the frequency drift ostensibly results not only from intentional manipulations on Sachiko’s part but also perhaps from the oscillator itself, caused for example by infinitesimal changes in the position of the controls governing the frequency or by idiosyncratic behavior of components in the oscillator circuit. If this is so, then it is an example of a minor way in which the machine asserts its agency. Second, and somewhat paradoxically, the assertion of machine agency via frequency drift makes the oscillator—which is sounding an obviously synthetic and “unnatural” sine wave—more natural and organic. As this slowly drifting tone lingers Otomo turns the volume of the contact microphone on, creating a hollow noise with resonant peaks around 2400 and 7000 Hz and, together with Sachiko’s sine tone and the outside siren and engine noises, forming a “laminar” texture suggestive of Evan Parker’s characterization of AMM; here, as in much of AMM’s work, the building up of layers is of greater concern than more point-to-point or call-and-response interaction, no matter whether these layers are intentionally performed by the musicians or not. The idea of layers is in fact here more than just a metaphor, as the four main sounds—sine wave, contact microphone, siren, and engine—each occupy a unique place in the frequency spectrum, with the siren’s fundamental frequency varying smoothly between approximately 700 and 1500 Hz and the bulk of the engine sound’s power centered around 100 Hz (see Figure 4.5). This layering of sounds, in addition to presenting a clear example of a texture comprised of several
distinct streams, points to a distinctive treatment of the performance space (including ostensible instruments, the room, internal and external non-intentional sounds, etc.) as a meta-instrument. Such an approach characterizes a goodly amount of electro-acoustic improvisation, not least of which the early music of AMM. Recall, for instance, Matthieu Saladin’s apt description of the “dis-identification of sonic individualities” of AMM’s early music as facilitating the creation of a unified yet heterogeneous mass. This particular sort of dis-identification was in AMM’s early performances afforded not only by their ritual of performing in near-darkness—facilitating the acousmatic situation—but also by the proliferation of sound sources, the use of high levels of amplification, and the favoring of long tones. While in the present example the performers are

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well-lit, the amplification is moderate, and the distinct sonic identities are obvious, the long
tones—both intentional and not—and the concomitant paucity of individual gestures either seen
or heard suggest a collective, meta-instrumental approach. (And, as we have seen, listeners can
choose whether or not they wish to open their eyes to look at the performers.) One further aspect
of this laminar texture deserves special mention. Sachiko’s sine waves are nearly always in the
high frequency range, occupying—aside from silence—the least amount of spectral space
possible. Meanwhile, most of Otomo’s sustained sounds are in the mid- to high frequency
ranges. This leaves the low frequency range largely unoccupied by the performers. This not only
suggests ways in which we might hear the sounds as unrooted or suspended in air but also

Figure 4.5: Spectrogram of 2:10 to 2:15 showing four distinctive layers within a laminar texture:
(from the top down) Sachiko’s sine wave, Otomo’s contact microphone, a police siren, and
towards the very bottom a truck engine.
practically means that non-intentional low-frequency sounds are not masked but instead are clearly audible. The low-frequency hum of traffic on the streets outside the Stone therefore provides a near-constant background to the performance, perhaps additionally setting the predominantly high-frequency sine waves into relief.

As the police siren recedes into the distance, Otomo adjusts the knobs on his mixer, subtly changing the equalization and volume to bring the turntable’s sound more to the foreground, culminating with two short bursts of filtered noise at 2:36. At 2:42, perhaps in response to the textural rupture insinuated by these bursts, Sachiko abruptly cuts off the sine wave before a second later articulating three short sine tones at the same frequency as the previously held tone. After six seconds of absence, Sachiko’s sines return, accompanied first by a prominent blast and then a more subtle bed of Otomo’s filtered noise. At 2:59, Sachiko begins to play with the amplitude and fine tuning of her sine tone, introducing occasional glitches into the texture and hinting at a greater amount of motion. At 3:14 Otomo picks up a credit card and then at 3:17 presses it against the turntable at roughly the same time as Sachiko changes the frequency of the sine tone from 11260 Hz to 9444 Hz; note again that these are in the approximate frequency ranges of her first two tones. Three seconds later, the sine tone returns to the higher of the two frequencies, and a series of rustles emerges from the turntable before a trio of staccato car horn beeps sound on the street outside. At 3:29, Otomo again presses the credit card against the turntable needle, producing a slowly shifting band of noise with resonant peaks around 2 kHz. Interestingly, a noticeable portion of this sound is acoustic rather than electronic: we hear sound emanating from the credit card and needle directly rather than from the speakers. This spatial element adds a further dimension to our understanding of the instrumentarium, as the readily perceivable distinction in tonal quality and localization make it clear that these objects
are not only part of a signal chain leading to the speakers but both are more directly audible and engage the acoustics of the room in a different way. This also points to a significant aspect of the performers’ attitude towards space: there are no reverberation or other spatialization effects added to their respective instrumentaria, and so rather than creating a virtual space—as much electroacoustic music does—that is then conveyed to the audience via the speakers (whose role in which case is to be as neutral as possible), the musicians emphasize the acoustic properties of the actual room, further foregrounding the here-and-nowness of the performance and allowing non-intentional sounds to inhabit the same space as the intentional sounds. While Otomo does use the panning controls on his mixer to route signals to the stereo speakers in differing amounts, the effect is fairly subtle from the audience’s perspective, and it suggests much more a sense of localized movement than of an alternative virtual space.

Otomo’s turntable rustlings and scrapes now augment the long-sustaining sine tone and in their increasing prominence and internal rhythms suggest processes of forward motion and accretion, which are suddenly arrested thirty seconds later by the abrupt change in the sine tone’s frequency to the much lower 2217 Hz, with a transient blip separating the two frequencies. This new frequency corresponds with the MIDI standard for the pitch C#7, indicating that Sachiko is using the Akai sampler to emit it. Otomo drops out after three more seconds, further portraying the abandonment of a process and leaving the sine tone alone with an occasional non-intentional exterior or interior sound. Although he makes no sound, Otomo’s hands remain on the apparatus: the fingers of his left hand rest on the mixer’s knobs and with his right hand he moves the turntable arm. He then picks up the credit card again, and at 4:21 presses it against the turntable arm. He keeps the credit card in this position until removing it at 4:50, adjusting several mixer knobs with his left hand, and repositioning the turntable arm with his right. At 4:59, pressing the
needle to the empty turntable while continuing to manipulate mixer knobs, Otomo draws out a band of filtered noise with a resonant peak around 695 Hz that assumes the foreground. Twelve seconds later, he removes the needle from the turntable, and in so doing stops the foreground noise to reveal a hollow, noisy background texture with a resonant peak at 811 Hz. The fits and starts here again halt the impression of appreciable forward motion, despite the increasing tension the sustaining sine wave might otherwise effect. At 5:17 Otomo replaces the turntable arm and removes his right hand from the turntable, producing a band of noise with several resonant peaks in a slightly higher frequency range between 1100 Hz and 1873 Hz.

Section 2

Several seconds later, at 6:07, Otomo places the first of several coins on the turntable mat; the coins interfere with the needle’s path along the mat, creating transient pops and fractures in the wash of noise. When a moment later Otomo places another coin onto the turntable, the acoustic sound of the coin dropping is clearly audible, standing apart from the otherwise noisy turntable texture in its percussive envelope and sharp resonances. As Otomo slowly adjusts a mixer knob with his right hand while keeping his left hand on the mixer, the noisy texture begins to skip, introducing rests into the previously steady-state sound. While in some sense this skipping is a development or variation on the texture, it is also in an obvious way a sort of subtraction, again thwarting progressive motion, and in fact the skipping becomes part of a gradual fade-out as the texture dissipates. When, at 6:04, Sachiko cuts off the sustaining sine tone this sense of stunted progress becomes even stronger. The overall impression of the first several minutes, then, is one of exploration rather than of progressing toward a goal. Although in this searching it sometimes seems like ideas fail to gain traction, the deliberate and unhurried
presentation of these ideas simultaneously foreshadows their later development and suggests appropriately patient modes of listening, encouraging one to attend to subtle internal changes in the textures.

A few seconds later Otomo places another coin on the turntable mat, and we again hear the acoustic chiming of the coin’s acoustic sound. When after several seconds Otomo removes and then replaces another coin, once again this coin rings. Whether by intention or not, this coin’s chiming—percussive, with a sharp resonance around 12.5 kHz—seems to inaugurate a new section, distinguished by short, staccato articulations by both Otomo and Sachiko. Otomo’s left hand rapidly moves among several different mixer knobs, quickly changing settings while issuing a volley of glitchy, broadband transients. Sachiko’s retorts are primarily sine cheeps centered around 9.5 kHz and 11.1 kHz—in the ranges noted earlier. Also present are a number of chirps around 13.5–14 kHz whose steady-state portions are much lower in amplitude than their wide-bandwidth attacks and releases; without clear visual clues but given the subtle distinction between these and the other sine tones, it is likely that these chirps are Otomo’s. Whereas the earlier laminar texture resulted from several distinct sounds united by their concurrent placement in time as well as their unique positions in the spectrum, here the comparable short durations and frequencies suggest that the listener associate them by similarity and proximity, for in the main they occur not simultaneously but in close temporal proximity. This latter aspect is in particular more reminiscent of call-and-response interaction, despite the extremely pointillistic content. In contrast with Otomo’s swift hand movements, Sachiko remains still; however, we still hear quickly moving gestures in the rapid-fire dialogue and perhaps (consciously or otherwise) associate them with the type of activity Curt Sachs refers to as the “instrumental impulse.” Sachs describes the instrumental impulse as “not melody in a ‘melodious’ sense, but an agile movement
of the hands which seems to be under the control of a brain centre totally different from that which inspires vocal melody.”\textsuperscript{165} Such quick motion, Sachs argues, “is not merely a means to a musical end but almost an end in itself which always connects with the fingers, the wrists and the whole of the body.”\textsuperscript{166} Even when performers do not bodily manifest it—and in fact the eschewal of such gestures might be seen as a hallmark of electroacoustic improvisation in general—the instrumental impulse can still convey itself to the listener via gestural surrogacy. As this brisk exchange wanes and a steadier wash of subtle turntable noise takes over, Otomo begins making adjustments to the PA mixer, which he continues to do for nearly a minute, during which time the texture is occasionally marked with granular pops and clicks until abruptly stopping. After a few seconds of silence while Otomo places a record on the turntable, the preceding volley is renewed, at points with even greater vigor and gestural rapidity, effected on a few occasions by bursts of music from the record, which while too short to be immediately recognizable contribute an additional layer of gestural activity. After about a minute of this exchange, Otomo lets the record play; while we now hear no obviously pre-recorded music, a steady tempo of 45 beats per minute takes hold despite an ever-changing pattern of clicks within each revolution. This simultaneously suggests a circular motion indicative of the turntable itself and a more erratic movement within this.

\textbf{Section 3}

The quick gestural momentum of the preceding section is now taken up more smoothly by the new rhythmic element of the turntable’s clicks, and a few seconds later, at 9:04, Sachiko

\textsuperscript{166}Ibid.
adds a sustained sine tone, first in the previously heard range around 11.1 kHz and then four seconds later around 4700 Hz. (The MIDI note number 110, D8, corresponds to 4698.6 Hz, suggesting again that this tone comes from the Akai). In this way Otomo and Sachiko dovetail into what seems to be the impending arrival of a new formal section while carrying the momentum generated in the previous section forward.

As the ostinato continues, Otomo first manipulates various knobs on the DJ mixer before adjusting knobs on the PA mixer for fifteen seconds. At 9:44, Otomo removes the needle from the record, thereby stopping the rhythmic ostinato and even more clearly heralding the arrival of a new section. The sine tone continues, however, and five seconds later Otomo places a cylinder with a contact microphone on the turntable’s spindle before slowly, over the course of fifteen seconds, turning a volume knob clockwise with his right hand and gradually fading in the contact microphone. After thirty seconds, occasional crackling sounds and bursts of fairly undifferentiated noise add to the bed of noise until, at 11:00, the foreground noise ceases and is replaced by a new ostinato, consisting mainly of clicks in steady tempo, once more 45 beats per minute. Eighteen seconds later Otomo picks up the credit card again and presses it against the needle, adding another layer to the texture. When, at 11:40, the sine tone stops, it does not indicate a loss of momentum, as the ostinato continues, but instead continues the tendency established a few minutes earlier in the dovetailing of thematic elements in place of clear-cut formal boundaries. Beginning at 11:55, there are several short sine bleeps around 13.7 kHz in addition to those around the two more prominent ranges, until, at 12:13, Sachiko sustains a sine tone around 9425 Hz—with some glitching—and then sixteen seconds later adds another, louder sine tone around 11080 Hz.

Irregular glitching, tremolos, and slight changes in frequency continue and take over the
foreground, especially once the ostinato ends at 12:29. Again the effect is not so much a loss of momentum as a passing of energy and change of focus to another element. The sine tones proceed until Otomo re-enters, now not with a steady ostinato but with irregular jabs of noises with their own inherent actively gestural arcs. Sachiko responds in kind by stopping the sustained sines and engaging in a rapid back-and-forth not unlike those in the previous section. At 13:05, Otomo creates a sonic gesture similar to a bouncing ball or a door hinge creaking, representative of the increased sonic gestural activity in this subsection. Otomo puts an end to this activity by unleashing a twenty-second block of undulating noise, after which there is an obvious sonic rupture. The relatively loud mass of noise puts into stark relief the following quietude.

Section 4

The clicking ostinato—again at 45 bpm—returns to punctuate this quietude, and despite the preceding rupture, this ostinato continues to provide a link to what immediately preceded it. For the next minute, we hear the ostinato, car horns and engines outside, a few transients, several sine tones of varying duration and frequency (but again largely centered around 7.4 kHz and 11 kHz), and an occasional series of turntable articulations like the earlier creaking gesture.

At 15:15, the ostinato ends and Otomo removes the record from the turntable while the sines continue, changing frequency slightly every second or two. Fifteen seconds later Otomo places a new record on the turntable and then turns up the volume, introducing occasional transients, sometimes in quick succession, and gradually other isolated pops become more frequent. By 16:20, both the sines and the glitchy transients have become quite active and remind one of the previous more gesturally energetic sections, although here there is much less negative
space and the sines’ activity is marked more by changes in frequency than in amplitude. Like earlier we again hear several short bursts of the record’s music as Otomo manipulates the needle’s placement with his right hand and the volume with his left; again, too, are some of the sine tones Otomo’s (see Figure 4.6).

In the background one may or may not detect an extremely high frequency sine tone at around 21600 Hz, near or above the theoretical limit of human hearing (see the line towards the top of the spectrogram in Figure 4.6). (Note that 20 kHz is the commonly given upper limit for human hearing, and this limit generally decreases as one ages; however, the brain apparently reacts to sound above this frequency, even if one is not consciously aware of it). Despite its nigh-
imperceptibility, upon close analysis it is obvious that this tone is much higher in frequency than Sachiko’s, and the later correlation between a bodily gesture of Otomo’s and the cessation of this sine tone makes it clear that this sine tone, too, is Otomo’s.

A minute later the various sine tones have become more steady-state; at 17:35, for example, there are sine tones at 7613 Hz (along with its second harmonic around 15182 Hz, indicating some harmonic distortion in the signal chain), which is presumably Otomo’s; 1318 Hz, Sachiko’s (note that the MIDI frequency for E6 is 1318.5 Hz, indicating that this comes from the Akai); and 9343 Hz (also with its second harmonic, around 18686 Hz), also Sachiko’s. Otomo briefly drops out before reentering. For the next minute the high sustained sine tones dominate the texture, with one burst of the record’s music and a few transient pops interjecting into the otherwise homogeneous texture. Sachiko spends much of this time making minute adjustments to the volume and frequency of the sampler with her left hand, while her right hand rests on the mixer. Otomo contributes additional sine tones (around 18:11) until the higher sines stop en masse at 18:30, cut off by a click, which suggests that these sine tones were Otomo’s and which soon repeats in a steady 45 bpm tempo. One sine remains, at the much lower frequency of 1318 Hz. The sudden tutti cutoff of the sines, coupled with the return of the clicking ostinato and the droning lower sine tone, indicate a clear formal division, unlike the previous sectional borders, which were relatively porous and where thematic elements of successive sections overlapped smoothly.

Section 5

Otomo now moves his hands rapidly around the mixer, adjusting various knobs, although there is no clear relationship between his motions and the sound until he lowers the volume fader
to remove the clicking and reveal an extremely faint brushing sound. His hands are now nearly completely still on the mixer and turntable for several minutes, during which time automobile traffic is once again obvious, later joined by occasional high-frequency scraping sounds from the turntable and one transient. At 20:39, Otomo produces a succession of several pitched tones around 2257 Hz; this is one of only a very few times in the performance where a standard musical interval is heard, this tone combining with the droning 1318 Hz sine tone to form a major sixth. After the brief addition of a much higher sine tone around 13716 Hz, Otomo introduces a rhythmic brushing ostinato, again at the tempo of 45 bpm. If the previous click ostinato was a cross-stick on a snare drum, this new ostinato is the equivalent of a brushed snare on a jazz ballad. Out of this brushing emerges an intermittent and understated friction-induced pitch hovering around 1171 Hz. Again a standard musical interval materializes, this time a major second. Over the next couple of minutes, the music is extremely focused, this interval emerging and receding sporadically, with only a few mid-to-high frequency transients punctuating the texture, and Sachiko eventually (at 22:16) adding a sine tone at 9427 Hz, sustaining it for four seconds, resting for several seconds, and then sustaining it for twenty more seconds. Otomo’s gestures match the musical focus: he is now almost completely still, his left hand on the mixer and his right on the contact microphone, while his head is bowed and his countenance shows deep concentration. Sachiko is meanwhile characteristically reserved and measured as she keeps her left hand on an oscillator and with her right adjusts buttons and then the volume knob of the sampler. On one button press, she ends the sustaining 1318 Hz sine tone before sounding several short blips each comprising three frequencies around 9400 Hz, 11000 Hz, and 13700 Hz.

A car with a loud bass-heavy stereo nears the club and then lingers outside on the street. Gradually, as if to mask this, Otomo and Sachiko become more active, inserting numerous sine
beeps in the two most used frequency ranges and turntable pops complementing a number of loud transients and then a cyclic whirr and crackle (again in a 45 bpm tempo) from the contact microphone. Eventually the car stereo is no longer audible, at which point the texture becomes sparser again, with intermittent glitches, transient pops, and sine blips continuing after the brushing ceases at 24:30.

Section 6

A half a minute later, Otomo signals a formal partition when he issues the first of many loud bursts, ranging from a half a second to several seconds, each actively gestural and noisy yet spectromorphologically diverse, reflecting both the contents of the record as well as direct manipulations of the turntable needle. Pregnant pauses separate many of these bursts, creating a palpable tension and heightened sense of drama. Intermittent sine blips, a remnant of the previous section, continue and serve to bridge the passages. Otomo rapidly changes the mixer’s volume knob with his left hand, and a short while later a lively crackling begins, not so much a regular ostinato but instead resembling popcorn noise. Sachiko’s sine blips continue, but now they have taken on a distinctive character, their attacks and releases having broadband transients such that they are reminiscent of kisses. Furthermore, it becomes clear that these sine tones are emanating not from the PA speakers but rather from the headphones on Sachiko’s table. Not only do these headphones add another dimension of spatialization to Sachiko’s sines, but they color the sine tones’ spectral response as well. Sachiko uses both the test tone oscillators and the sampler to emit an active yet irregular stream of crisp sine tones which continues for the next minute, gradually becoming more intermittent. At 27:09, she uses the sampler to sustain an additional, lower sine tone at 3520 Hz (corresponding to MIDI note 105, A7). Twenty-five
seconds, later Otomo fades in the contact microphone, eliciting a further hollow texture. At 27:48, he removes the needle from the turntable mat, and the crackling ceases while Sachiko’s sines continue. He now once again applies the credit card to the turntable, bringing forth an array of scrapes and hisses, and, at 28:29, a fast, regular, rhythmic beating. Twenty seconds later, Otomo removes the credit card, and the turntable now sounds just a slightly pitched tock like a muted clock (again at—you guessed it—a 45 bpm tempo). Otomo now adds the contact microphone, providing sporadic scrapes and hisses until forty seconds later as it crescendos dramatically it joins the rhythmic ostinato in an insistent brushing. When the ostinato ends after twenty more seconds, Sachiko glissandos from the sustaining sine tone’s 9380 Hz to 11100 Hz. After several seconds, Otomo removes the record from the turntable and then holds the turntable arm in his right hand while adjusting mixer knobs with his left, eventuating in several low-mid range pops in rat-a-tat succession. A short while later, the sustaining sine tone quickly slides back to around 9380 Hz before returning to 11150 Hz and then halts precipitously, ending the high drone that had marked the previous several minutes and perhaps heralding a sectional close. Indeed, this is confirmed when, a few seconds later, at 31:11, Otomo blasts a fifteen-second block of noise dotted with a handful of transients that ends as abruptly as it began and is succeeded by a prolonged silence, interrupted only by the sound of a truck accelerating past the club. The block of noise seems to serve almost as an exclamation point to the section, and the protracted silence that follows it marks the clearest sectional boundary in the performance yet.

Section 7

Twenty more seconds of silence follow, while Otomo adjusts mixer knobs. Out of this silence, Otomo gradually fades in a heartbeat-like rhythmic ostinato in an exact shuffle rhythm,
once again at 45 bpm, beginning nearly imperceptibly. Otomo slowly increases the amplitude with his right hand on a mixer knob over the course of thirty seconds. A few significant aspects of this ostinato stand out. First, in its steady tempo and repetition of a rhythm that could be described as a quarter-note followed by an eighth-note it connotes distinctly traditional musical qualities, while at the same time in its similarity to the rhythm of the heartbeat it indicates the human body and life. Second, while the human it implies is presumably at rest (given the slow tempo), and even the use of the term “ostinato” indicates something static and unchanging, this figure also suggests movement in several ways: in its repetition it suggests both a circular motion (clearly related to its source, the rotating turntable) and a plodding minuet-like dance, and in its gradual increase in volume it suggests something approaching, moving from far to near. The spectromorphology reinforces all of these connotations: in contrast with both Sachiko’s sine tones and many of Otomo’s pops, cracks, and scrapes, here the spectral energy is concentrated in the extreme low end of the spectrum—resembling lowpass-filtered noise with a low cutoff frequency—and its rhythm is articulated by a percussive attack with no obvious continuant or release. Both the rhythm and spectromorphology give a sense of groundedness and—especially coupled with the gradually increasing volume—heightened tension. The listener’s sense of expectation is put into high gear.

When the ostinato’s volume finally reaches its plateau at 32:31, Sachiko enters with a quiet, high-frequency, sustained sine tone initially around 13815 Hz. Ten seconds later, Otomo holds the contact microphone to a plastic guitar pick and presses the pick against the revolving turntable, in effect using the pick as a turntable needle and the contact microphone as a cartridge. From this comes a hissing whisper, a breath of highpass-filtered noise with several formants: the noise starts around 1500 Hz, the amplitude increasing with frequency, with prominent resonances
at 5100 Hz and especially 7200 Hz, as well as lower-amplitude resonant bands centered around 12000 Hz and 17500 Hz. Otomo sustains this sound for several seconds, rests for fifteen, and then sounds it again. He repeats this pattern irregularly over the next minute, during which Sachiko adds a prominent, sustained sine tone at 2960 Hz, corresponding to MIDI note number 102, F#7. As it turns out, this is the same frequency sine tone used in several of Sachiko’s live performances, including those at Amplify 2002 with Cosmos,167 with Otomo and Jim O’Rourke on April 20, 2009,168 and on October 21, 2011 at Sonorous Duration,169 as well as on recordings, most notably for the entire (!) 60-minute duration of 2004’s Bar Sachiko. While maintaining its overall profile, Otomo’s hissing occasionally changes slightly: at 33:42, it is lower in amplitude, more crackly, and with an additional resonance around 3000 Hz; a few seconds later it undergoes a sequence of subtle changes in its resonant frequencies and their relative prominence. After becoming louder and more crackly still, the hiss promptly stops for five seconds before resuming, and is fifteen seconds later accompanied by a loud sucking sound—apparently emanating from the contact microphone—that continues for ten seconds until Otomo drops the contact microphone, causing two loud transients. Periodic returns to the sucking sound are answered several times by Sachiko with short sine tones around 9500 and 11200 Hz.

At the end of one of the sucking sound’s decrescendos, the high sine tone around 13750 Hz ends, and twenty seconds later Otomo’s sucking sound gradually morphs into a clearly pitched tone centered around 1176 Hz, with several harmonics and with occasional tremolos to the octave below. After fifteen seconds, the pitched tone ends and returns to the contact microphone’s scraping and sucking sounds, and this texture continues for the next minute and a

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167 See https://www.youtube.com/watch?v=O1ACMELPpG.
168 Released on DVD as Ensembles 09: Pre-opening Live at Shinjuku Pit Inn (No Idea, 2009).
169 See https://www.youtube.com/watch?v=qRV2XU0sy98.
half. At 37:58.5, there is a loud transient followed by two quieter answers, and twenty seconds later the heartbeat ostinato ends abruptly while the scraping contact microphone texture and sine tone continues, with occasional transient interjections.

After another half a minute, Sachiko elicits an additional prolonged sine tone from the sampler at 2217 Hz, corresponding with MIDI note number 97, C#7, and with the already droning sine tone forming another standard musical interval, a perfect fourth. A short while later, Otomo blasts a series of staccato noises until they eventually coalesce into a more steady-state lower amplitude noise. Over the course of the next minute, Otomo trades a mixture of fractural noises and muted clicks with Sachiko’s sine tones around 9300 Hz, 11000 Hz, and 13800 Hz that become generally shorter and glitchier. Otomo eventually responds to Sachiko’s sine tones with several of his own, staccato, with transient attacks and releases, and with a gestural snippet from the record at 41:28.5. At 41:38, he sustains a 15200 Hz tone for twelve seconds, and five seconds after it stops Sachiko ends her 2217 Hz sine tone. Otomo’s final gestural phrase is a five-second-long sequence of seven sine tones marked by loud transient attacks and culminating with a barely perceptible, extremely high-frequency tone around 21750 Hz—again at or above the commonly assumed upper limit of human hearing—and then a final appearance of the 45 bpm pulse. The pulse fades and dissolves until fully vanishing fifteen seconds later, leaving only Sachiko’s 2960 Hz sine tone and Otomo’s faint and practically imperceptible 21700 Hz tone.

After thirty seconds, it seems as though Sachiko’s sine tone is fading out, although after moving one’s head it is no longer clear that this is the case. This reveals a fundamental aspect of Sachiko’s practice: the exact position of a listener’s ears determines to a significant extent one’s perception of a sine wave much more so than with other sounds, even when the sine wave is basically static with regard to frequency and amplitude envelope. In this respect the sine tone
resembles an object like a chair that might require a series of adumbrations by the perceiver in order for it to be fully perceived. A chair has a very different appearance when viewed from the front than it does when viewed from the back, and even though with experience gained from viewing many chairs from many different angles the perceiver may at one glance more or less understand the physical form of a chair newly presented, the perceptions of this chair inevitable change significantly depending on the viewing angle, just as one’s perception of a sine tone changes significantly depending on listening angle. Perception strongly influences the formation of meaning, and thus one could argue that meaning here is, to a greater degree than normal, predicated on one’s own experience of the performance rather than on what is physically performed.

A minute and a half later, however, it is clear (regardless of one’s listening position) that Sachiko’s tone is gradually fading, and over the next twenty seconds the tone disappears completely. Otomo keeps his hands on the turntable and mixer, and eight seconds later a transient chirp cuts off his possibly imperceptible sine tone and signals the end of the performance to the audience, who responds by applauding almost immediately and continuing for forty-five seconds. For a performance characterized by its patience, use of silence, and minimal material (not least of which the sine tone), such an ending could hardly be more fitting: the only clearly audible sine tone lingers for whole minutes while eventually fading into nothingness, leaving only the sine tone above the commonly accepted upper limit of human hearing until the final glitch serves as punctuating marker separating the performance from the time surrounding it.
In this performance, the sense of formal divisions emerges primarily from disruptions that separate sections—in the form of extended silences; loud, broadband, noisy textures; or both—and from material that unites a section. In this latter category is Otomo’s frequent use of rhythmic ostinati, tied to the agency of the turntable and its speed of 45 rpm. Likewise, material that continues while other aspects change often serves to bridge successive sections; Sachiko’s sustaining sine waves at several points function as connective links. A spectrogram of the performance helps illustrate some of the ways in which sections exhibit distinguishing and unifying material and, on the other hand, material can serve as connective links between sections. Figure 4.8 once again shows a spectrogram of the entire performance, although

\[\begin{array}{c}
\text{Frequency (Hz)} \\
\text{Time (s)} \\
\end{array}\]

Figure 4.7: This spectrogram shows the last 126.6 seconds of the performance. Sachiko’s lower sine tone at 2960 Hz fades out gradually, while Otomo’s practically imperceptible sine tone at 21700 Hz ends abruptly at the very end of the performance.
Sachiko’s instrumentarium is in some sense more easily reconciled with concepts of instruments (like Schaeffer’s idea of the pseudo-instrument) that ascribe an instrument to the real or imagined source of sound objects (or events) that share a similar spectromorphology. Recall Schaeffer’s definition of a musical instrument: “Every device from which a varied collection of sound objects – or a variety of sound objects – can be obtained, whilst keeping in the mind the permanence of a cause, is a musical instrument in the traditional sense of an experience common
to every civilisation.”¹⁷⁰ The “permanence of a cause” in Sachiko’s instrumentarium is represented by the sine tones: regardless of the various frequencies the sampler and test-tone oscillators can produce, they all take the shape of a sine wave. This sine-ness suggests to the listener that the tones, regardless of frequency, come from the same source.

![Diagram of Sachiko M's instrumentarium on April 14, 2015 at The Stone.](image)

The sine waves are for Schaeffer a permanence in characteristic (which characteristic is the elusive “timbre”), while the different frequencies are variations of a value; the simultaneous permanent characteristic and variable value seem to satisfy Schaeffer’s chief requisites for a musical instrument (or a pseudo-instrument). The identifiable character of Sachiko’s sine tones satisfies even classical descriptions of timbre despite the typical spectromorphology of her sounds, which do not adhere to the archetypes of instrumental spectromorphology: the spectral content of her sine tones generally varies not at all or only imperceptibly over their durations.

and the tones have immediate onset and release phases. Despite—or indeed because of—this permanence, Schaeffer would likely critique the instrument for its reduced capacity for play (“jeu”). As John Dack summarizes, “instruments should ideally display a capacity for jeu or play. Jeu expresses the instrument’s potential for shaping the sound’s dynamic and spectral evolutions.”171 Furthermore, the ascription of a source is occasionally problematic, however, when, for instance, Otomo emits sine tones from his instrumentarium, which is obviously much different from hers both in its physical constitution and performance techniques. Additionally, a listener might attribute Sachiko’s sine tones to a single source, yet in some sense there are not one but three sources: the sampler and the two test-tone oscillators. It is more helpful to consider Sachiko’s instrumentarium not as a single, fixed, unchanging object but as a network of dynamically interconnected components that assert their agency in their affordances and—in particular in this case—their constraints. These constraints include the limitation on waveform, a sine wave that varies neither over the course of a sonic event nor among distinct events; amplitude envelopes, which in general are static over the duration of an event; and the limitations on frequencies (especially obvious with the Fostex test-tone oscillators). The instrumental agency results, to a large extent, through these constraints; the constraints grant the instrument a high degree of agency relative to Sachiko. It is these constraints that limit the instrumentarium’s potential for jeu. Contra the common historical impulse to break through constraints—constraints of instruments like the fixed amplitude of harpsichord notes ceding to the dynamic flexibility of the pianoforte’s, constraints of technique ameliorated by practicing works like Franz Liszt’s Transcendental Études—Sachiko has deliberately chosen these constraints. The agency which these constraints engender might in other contexts be minimized but is instead here

Considering instruments as dynamic networks rather than fixed, static objects is also helpful in analyzing Otomo’s instrumentarium. For example, what does it suggest for our conception of instruments when Otomo, employing the turntable as an instrument, uses a guitar pick and contact microphone as a sort of *ad hoc* turntable needle and cartridge? The turntable needle and cartridge are both components in a turntable that might normally be connected to the usually present record, which itself is another component. By assuming an enlarged, modular conception of musical instruments comprising unique connections among possible components within possible networks, a guitar pick and contact microphone act as components just as a needle and cartridge do, and the mat of an “empty turntable” is a component just like a record is (see Figure 4.10). Additional components include mixers and speakers and rooms, contributing—as things that matter and that make a difference—both to the performers’ practices and consequently to the music.
Figure 4.10: A modular conception of Otomo Yoshihide’s turntable instrumentarium showing some possible connections.
Chapter Five

Maria Chavez and Olivia Block at AMPLIFY 2015: exploratory,

October 30, 2015

It is the first night of AMPLIFY 2015: exploratory, the ninth edition of a festival started in 2001 by Erstwhile Records owner Jon Abbey. This year’s installment is a co-production of Erstwhile and ISSUE Project Room, whose space in downtown Brooklyn is under renovation, and so it takes place instead in SoHo’s Fridman Gallery, a multi-disciplinary venue hosting performances, exhibitions, installations, and lectures. The festival’s marketing blurb trumpets Christoph Cox’s description of the first edition, in 2001, as “the first annual summit of the new global improv” and notes that “while AMPLIFY has not been quite annual, and has partly moved away from improv, it continues to hopefully suggest potential future directions in cutting-edge music.” Although the 2001 and 2003 editions, as well as the two most recent, in 2011 and 2013, took place in New York, Tokyo hosted the festival in 2002 and 2008, Cologne and Berlin in 2004, and Prague in 2005, underlining the transnational nature of the festival. Of the artists performing in this year’s three-night festival, only Taku Unami is based outside of the United States, the Peruvian-born Maria Chavez residing in Brooklyn and the UK’s Graham Lambkin in Poughkeepsie. Each night presents three duos, five of which are meeting for the first time, accounting for this edition’s “exploratory” subtitle. Maria Chavez and Olivia Block—second on tonight’s program and the principal subjects of this chapter—are among the first-time collaborators. Given the festival advertisement’s assertion that “the performance order is carefully structured so that the whole is greater than the sum of the parts,” and despite the
obvious marketing purposes made explicit in the exhortation that “Attending all three nights is highly recommended,” in addition to focusing on Chavez and Block’s set it is worth contextualizing it within the sets that bookend theirs.

Despite some similarities in Chavez and Block’s backgrounds—both had lived in Texas, and both had received tutelage directly or indirectly from Pauline Oliveros—and although they had previously shared a bill (on a June 13, 2014 performance at Studio Z in Saint Paul, Minnesota), this would be their first performance together. If Prévost distinguishes his work from more traditional musical practices by adopting the term “meta-music,” Chavez in her discourse attempts to sever the tie completely, claiming she is not a musician but rather an abstract turntablist, improviser, and sound artist. Within improvisational communities, decrying records is more common than eschewing their creation, with some of the most prominent dissenters simultaneously the most prolific. In Records Ruin the Landscape: John Cage, the Sixties, and Sound Recording, David Grubbs explores this point at length, focusing in particular on Derek Bailey and AMM. Chavez, on the other hand, puts her money where her mouth is, shunning the release of commercial recordings of her work. She explains her rationale by asserting, “As a sound artist, I’m not making music, so I don’t have to participate in making music objects.”

Indeed, after the 2004 release of her debut recording Those Eyes of Hers, her next commercial release of any sort was the self-published 2012 book Of Technique: Chance Procedures on Turntable, which she contextualizes as both a didactic manual and an interactive art piece that allows readers to use the book’s pages to form their own turntable compositions. Block, meanwhile, well aware of the nebulous area between music composition and sound art, describes

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174 Maria Chavez, Of Technique: Chance Procedures on Turntable (Brooklyn: Maria Chavez, 2012).
her works as “electroacoustic sound compositions.” Asked about the borderline of music, Block says, “I try to deal with this question in my work, because I don’t know the answer, but the question is important to me.” While the practices of both Chavez and Block extend to multiple varied contexts including installations, improvised performances are significant parts of these diverse contexts.

While Chavez and Block are among an increasing number of female improvisers, they both identify with being outsiders in a field still dominated by males. Chavez says, for example, “I’ve never felt like I belonged anywhere. I was always the only, you know? The only Peruvian in school, the only girl in audio engineering school, the only girl on the bill for a noise show, so I’m used to it.” Block similarly identifies as an outsider, saying, “I feel like I am always on the brink of being marginalized as an artist because of my gender.” Significantly, both Block and Chavez feel their outsider statuses place extra pressure on them to stay informed, particularly about music history in Block’s case or the latest technological developments in Chavez’s. Moreover, Chavez says that she decided to obtain a degree in audio technology in part specifically to counter the stereotypical gender-based bigotry she encountered as a DJ.

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177 It seems somehow characteristic of the gender-based assumptions that still exist in the field that one of Tobias Fischer’s “15 Questions to Olivia Block” uses gender-specific language in the question itself, “Do you feel an artist has a certain duty towards anyone but himself?”
178 For their part, AMM has apparently felt uncomfortable with the fact that they had not included women among their ranks. The cover of AMM’s 1994 album Live in Allentown USA (Matchless MRCD30) includes a painting by Rowe he describes as “Allentown viewed from the AMM yellow truck (Elektra 1966) with reference to Georgia O’Keeffe, ‘New York with moon (1925).’ The homage to O’Keeffe is, according to Rowe, “Amm’s apology to women, the yellow phallic structure viewed through a vagina,” the apology referring to “the fact no women had been part of AMM, something we felt was incorrect, but we never found the appropriate player. We took responsibility for that, hence the image.” (http://ihatemusic.noquam.com/viewtopic.php?f=3&t=4595&p=182790#p182768)

In a 2002 interview Prévost discusses the issue of gender disparity in improvised music. He says,

In improvisation, the balance of gender is changing. Slowly—perhaps still too slowly. But there is
At twenty minutes before 8pm, twenty-five people are already sitting in the black folding chairs that are nearly the only furnishings in the space that are not white. The walls, ceiling, columns (which obstruct the views from the seats behind them), several folding tables, and even the PA speakers and subwoofers atop which they rest are all white. Given all this pallidity, the ebony grand piano slightly to the stage left side of center looks slightly out of place and makes one think that this setting is one of the few in which a white grand piano might be more appropriate. The industrial concrete floor and a few “original details” assure one that this is neither an Apple Store nor a plastic surgery clinic. The audience, like that at Otomo Yoshihide and Sachiko M’s performance, is heavily slanted towards males, but there is notably more diversity in age, the bulk of the audience apparently fairly evenly distributed between the ages of 30 and 65 or so. A few minutes before 8 o’clock, all the seats have been claimed, making it clear that the folding chairs, arranged in four rows of about ten chairs each are—as they often are—slightly too close to their neighbors, causing their occupants to literally rub shoulders or otherwise hunch inward. To the audience’s right is a table with a large mixing board and a laptop, presumably to record the audio of the festival’s performances.

As at the Stone, there is no proper stage, and the performers will occupy the same level as the audience. Unlike at the Stone, however, one needn’t cross the performance area to access the bathroom, but there is apparently another area behind the performance space, which fact is revealed mid-way through the first set when—somewhat startingly, given the sparse nature of

—a shift. I see it reflected in my workshops where I could never get all the women to come in the same day. So that normally there might be only one or two women in a class of 12-15. Last week however, I had four women in a class of twelve. Progress—maybe! The only thing that maybe is surprising is how long this has taken. After all, there seem to be so many particular practices—‘operational qualities’—in collective improvisation that reflect feminine aspirations. What I mean here is that part of the music-making process is the development of a social relationship between the musicians, and for women coming to the music that is an attractive element to them. (McKay, “Eddie Prévost.”)
both the sounds and visuals—a man emerges from this space, later retreating and then re-emerging with a glass of red wine. Offstage left, against the wall, is a table holding a turntable and DJ mixer, presumably Chavez’s. Towards the rear of the would-be stage is another table, holding several cardboard boxes, an audio interface and laptop, a mixing board, a paper grocery bag, and six white candles in mason jars. There are several oscillating fans towards the front of the performance area.

At 8:15, Lawrence Kumpf, ISSUE Project Room’s artistic director, assumes the front of the room and takes a microphone, and gradually the seventy or so audience members (about twenty-five of whom stand in the area behind the seats) quiet down. After a brief introduction and announcement of upcoming events, Kumpf hands the microphone to Jon Abbey, who thanks the co-producers and audience members before introducing the first duo, Taku Unami and Sean Meehan, noting that this is the first time they are performing as a duo since 2009.

As the audience applauds, Unami and Meehan take their places on the performance area. They sit down on the floor, and from the fourth row they and their instruments are completely obstructed from view. This performance is then to many of the listeners quite clearly acousmatic, not because the lights are dimmed, as they are for some similar performances but are not here, but because the seating arrangement blocks the performers from view. The performance emerges out of relative silence, with the building’s own ticks and growls combining with the wind and traffic outside to contribute as much sonically as the performers themselves. Gradually, Unami begins turning the fans on and off, their whispered breaths at first nearly imperceptible. Occasionally the fan’s power buttons add transient clicks to the proceedings. The pianissimo crescendos and decrescendos of the fans occupy the first several minutes of the performance.
before Meehan enters with what sounds like shaking metallic windchimes, creating a upper-frequency texture lasting for twenty seconds. (It is revealed after the performance that Meehan is using two contraptions each comprising seven small bells similar to Tibetan singing bowls that are struck by metal tangents attached to a motor-driven spinning rod, controlled by Meehan. Embodying the festival’s “exploratory” theme, Meehan has constructed these instruments specifically for this meeting and is performing with them for the first time.) The ebb and flow of Unami’s fans continue and are sometimes punctuated by relatively loud—given the otherwise extremely low dynamic level—button presses. Soon we hear the fans blowing paper; from the perspective of many of the audience members this must be implied by the sound alone, but this seems to be confirmed later, after the performance, when Unami and several helpers pick up scraps and place them in garbage bags, which bags were evidently also strategically placed so as to billow with the fans’ blowing. Also made clear only after the set is that Unami is not principally manually turning the fans on and off but is using a lighting mixer to do so from the opposite side of the performance area, next to Meehan. Meehan now rolls mallets on a sizzle cymbal, again forming a textural block that ends as abruptly as it began. Soon a latecomer opens the gallery’s door, and the crescendo and diminuendo of the wind-blown soundscape outside serendipitously matches those of the fans. Now the building’s ventilation system fires up and is—for a time at least—louder than the performers’ sounds. Perhaps in response, Unami now turns his fans to higher speeds, producing louder breaths slightly higher in frequency, and Meehan again rolls on the sizzle cymbal. After these sounds recede, a regular rhythmic clicking in a clear triple meter, presumably from an oscillating fan, takes the fore (see Figure 5.1).
This rhythm continues for a while, and Unami adds a much louder, wind-like noise layered atop a whirring motor. (Is it a handheld vacuum cleaner? After the performance, it turns out that this is in fact a hair dryer.) The fans again ebb and flow for a while before the hair dryer returns, answered by Meehan’s bells, now louder than before. A quick succession of articulations from Unami’s fans and hair dryer suggests that the performance is centrally concerned with the play of spectral space; the fans and hair dryer largely create broad bands of mid-frequency noise, while the bells and sizzle cymbal have more concentrations of high frequencies and have narrower resonant peaks betraying their metallic construction. The relative fullness of the room has increased the ambient temperature, making one wish the fans were pointed at the audience, and when a listener in the row ahead struggles over the course of a couple minutes to suppress a coughing fit, another type of tension imbues the performance.

Upon close listening, it becomes clear that several of the fans have in addition to broadband noise a clear fundamental frequency, and Unami seems now to play with this pitched quality. While a lower-pitched fan runs, he simultaneously turns on a higher-pitched fan and lowers the speed and therefore the pitch of the first fan. After a second or two, he then simultaneously turns off the higher-pitched fan and increases the speed of the lower-pitched fan. As if in response to this play of pitches, Meehan now sounds several of the bells by manually striking them one at a time, their individual pitches now clearly obvious and in succession forming the only traditionally melodic phrase of the set. The fans subtly and irregularly click, and again the door opens and matches their amplitude envelope. Around thirty minutes into the performance.
performance, it seems like Unami and Meehan have said all they have to say, and one wonders how much longer they can, or more urgently, will continue. Almost immediately, they stop, perhaps thinking the exact thought, and come to an amazingly well-timed ending, at once surprising yet utterly appropriate. The audience erupts into applause. On the set break it is made clear that Unami had been playing four oscillating fans, one box fan, and two hair dryers, and the clean-up of paper scraps leads one to wonder how much of a performative element was missed by those out of sight of the performers. Nonetheless, it strikes one as an effectively subtle performance. The generally extremely quiet dynamic level of the set prepares the audience for closely detailed listening, yet it also suggests that the evening’s later performers may want to use greater variety of dynamics, as one imagines that such a low volume might tax fatigue the audience.

Unami’s use of the fans calls to mind Takehisa Kosugi in the Taj Mahal Travellers pointing fans at the on-stage microphones. However, while in the Taj Mahal Travellers these fans both amplified and among many other diverse instruments, Unami’s are—tonight at least—his only instruments, paired with Meehan’s similarly minimal bells.

During the break, the folding table holding the turntable and DJ mixer is moved to stage right and angled in slightly to face the center of the room (see Figure 5.2). The turntable is a Numark TTX Direct-Drive, which offers the ability to play 78 RPM records, to play as slowly as 16.5 RPM, and to play records backwards. Although it is Chavez’s preferred turntable, she does not travel with it, and on tour she instead requests the industry standard Technics SL-1200MK2,

179 This set as well as several others on the festival had substantial visual components, leading Jon Abbey to write on the ihatemusic internet forum that he was “not sure if there will be any ErstLives coming out of this...a lot of the sets were not just 'exploratory' but had large visual components that would obviously not be part of a CD outside of a still photo or two” (http://ihatemusic.noquam.com/viewtopic.php?f=3&t=9891).
similar to the one Otomo Yoshihide used. Notably, whereas most turntablists, especially within the realm of more DJ-oriented practices, use two turntables, Chavez, like Otomo, generally performs with only one. For a mixer Chavez normally uses an Allen & Heath Xone:92 full-featured DJ mixer, but for tonight’s show she instead uses the smaller Numark M3. The Numark mixer features for each channel three spring-loaded “kill” switches; when pressed, each switch mutes one of three frequency bands, “bass,” “mid,” or “treble.” Although the frequencies of each band are fixed, the amount of gain of each is adjustable via a knob. Chavez removes from a cloth bag a stack of records with covers and then a larger stack of records without covers or sleeves, placing them atop each other to her left on the table. (As she explains in a video of a workshop on abstract turntablism, “If they’re new records, I keep them in their case so that the sound can still stay crisp while I’m getting to know it. And then sometimes they’ll just one day end up in my regular pile of 'vocabulary,' and then they’re done being new and they’re 'in the family.'”) She then removes several fragments of broken records and places them on a small stack of 45 rpm records. The stage lights dim to half.

Meanwhile, Block produces and places inside the piano a yarn mallet, two milk frothers, an eBow, several guitar strings, a piece of frosted glass, walkie-talkies, and a Critter and Guitari Pocket Piano. Block meticulously threads the guitar strings through the whips of the milk frothers, a different gauge string in each, and then puts a new battery into an eBow. A microphone is positioned above the center of the piano’s soundboard. Perpendicular to the piano

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180 Chavez notes, “I only use one turntable for performances. I can perform with two but it’s a bit too much for me to focus on. What matters is the result of the improvisation, not the amount of equipment I have. And a two turntable set up is an old DJ mentality, in my opinion. I’m not DJing when I’m performing. I do DJ as well, for parties, fashion shows, art museum openings, but that is a different area of my work as a creative person.” (Iversen, “The Language of Sound.”)
181a Maria Chavez – Abstract Turntablism Workshop at Girls Rock Philly 1/23/2015,”
https://www.youtube.com/watch?v=yCqczSCNEy.
181b The different gauges of string cause the milk frothers to rotate at different speeds, the frother with the thicker string rotating at a slower speed.
keyboard is a folding table, and on it are a microcassette recorder, more strings, two large tuning forks, and a foil sheet.

Section 1

When Chavez and Block are ready to begin, the audience lights dim completely, and conversation fades. Immediately Chavez produces in quick succession a sound resembling a woodblock and then two rapid mid-low frequency punches, already differentiating her approach from Otomo’s by displaying greater spectral spread and high fidelity, if such a phrase can be used to describe glitchy abstract turntablism. Not everyone seems to have noticed that the performance has begun, however, as a few people continue talking and laughing, while a sine tone emerges around 810 Hz, corresponding to G#5. Perhaps from the eBowed piano, this sine tone soon recedes before appearing again, sustaining for several seconds, and then fading. Chavez offers an occasional low-frequency thud, demonstrating the extended low-frequency

Figure 5.2: The stage setup for Maria Chavez and Olivia Block’s performance on October 30, 2015. Not shown are two speakers to the rear of the audience.
response, clarity, and definition of the PA system, especially notable in comparison with that of
the Stone. There is a protracted near-silence during which one hears another, more subtle sine
tone around 268 Hz (just north of middle C) but slowly drifting; this tone continues for
practically the entire performance and seems to be a non-intentional sound from somewhere in
the building. As this sine tone mixes with HVAC sounds and outside noises, Block begins to
slowly scrape the piano strings with the yarn end of the mallet, producing something like a
\textit{pianissimo} ride cymbal alternately rolled and scraped. The finely detailed and subtle nuances of
the scrapes make it clear that the piano is fairly heavily amplified. As Block continues to
massage the strings, Chavez thumbs through her stack of records, places one upon the turntable,
and then places a clear plastic sheet above the record. With her left hand, Chavez slowly turns up
the volume of the mixer, and for the next minute, the sine tone and scraping continue while
Chavez drops the occasional low-frequency transient. The presumably non-intentional sine tone
briefly fades out while lowering in pitch before reentering a few seconds later, with a slight
scoop before returning to its previous pitch; for the next while it will drift in frequency and
volume while Chavez begins an irregular report, like something between a feathered bass drum
and distant fireworks, that continues until 4:15, gradually gaining momentum. During this time
Block continues to scrape the piano strings with the mallet held in her right hand, likewise
slowly increasing in amplitude and activity. With quiet subtlety Block and Chavez
simultaneously portend the patience, attention to detail, and use of tension that is to characterize
the performance.

With her left hand, Block picks up a milk frother, whose whip is threaded with a guitar
string, and turns it on. The frother begins to irregularly strike metal preparations she has placed
above the tuning pins, normally in groups of two successive hits but sometimes singly and
sometimes in larger groups. This flurry, along with Chavez’ s, increases the forward musical momentum and tension, and at 4:32 Chavez issues a dramatic low-frequency double attack. Over the next minute, the texture thins out somewhat but continues to feature various combinations of droning sine tones (both at the previous frequency and also around 421 Hz), turntable thuds, and motoric, metallic strikes. By 5:30, Block is now holding a frother in each hand, and in addition to the previous metallic impacts she alternately produces rapid bursts—like a small alarm bell—by holding the frother to the piano’s bridge, more aggressive inharmonic strikes on a metal sheet, and repeated excitations of the high piano strings. All of these gradually increase in amplitude and general rate of movement, creating a palpable sense of heightened tension. Chavez likewise adds to the mounting tension with foreboding low-frequency rumbles while she rapidly adjusts the mixer’s knobs with her left hand. At 6:21, while a series of mid-upper-register piano chords sustain, Block turns one of the frothers to the foil sheet on the table to her right, producing a quick, noisy blast, before a yet more intense and erratic volley lasting until 7:00.

Section 2

At this point Block’s frothers continue, but are now noisier and less clearly pitched, quieter and more regular. Occasional pianissimo plucked strings augment the frothers’ oscillations; their continuation at a lower dynamic, and the abandonment of the metallic impulses and Chavez’s glitches suggests a dovetailing between smaller formal sections. Here as elsewhere, obvious musical changes—in dynamics, texture, rate of activity, timbre, etc.—mark sectional boundaries, while certain other musical elements continue through boundaries and bridge successive sections. Out of this new texture, Block plucks a B5 piano note and then immediately sets a frother whirring more prominently, and as the B5 piano note decays she plucks, extremely
softly and vibraphone-like, first F#6 and then C6. With the B5 these pitches form an [016] trichord, apparently—given her use of it later in the performance—a favored harmonic combination (see Figure 5.3).

![Figure 5.3: Block's plucked piano notes at 7:16.](image)

At 7:22, she strikes three D6s in quick succession. The whirring continues and along with the droning sine tone throughout the section forms a textural bed atop of which Block strikes upper-register piano strings singly or in chords and Chavez places thunderous booms. At 7:50, the whirring becomes a metallic ringing when Block positions the frother over the piano’s bridge. With her right hand Block alternately places the frother over the bridge, upper-register strings, or the metal sheet inside the piano, and with her left hand she picks up a walkie-talkie and manipulates its settings while holding it close to the piano’s microphone, producing broadband mid-frequency noise. Meanwhile, Chavez adds to the noisy texture and dots it with infrequent and loud low-range punches, which at first seeming to excite some of the piano strings later instead seem to be characteristic of the record itself. By 8:35, the frother is again steadily whirring in noisy oscillations; no longer does it strike the piano strings or the metal sheet, and the absence of pitched tones suggests a transition into a new section.

The focus now shifts to the walkie-talkie’s breathy exhalations, which Block articulates with frequent transient attacks. Chavez too participates in this noisier texture with a series of rapid percussive strikes, again decaying quickly into pitched tones. Out of this flurry arises a sine wave at 363 Hz (around F#4), which swells—suggesting feedback—before gradually fading. The
texture continues until Block turns the frother off and sets it on the table to her right. She now picks up another walkie-talkie with her right hand. Fifteen seconds later the steady-state walkie-talkie noise fades, and taking its place is an alternating dialogue of whistles and hisses. As these continue, Chavez begins a fifty-second-long, gradual, and dramatic crescendo. The subwoofers’ low-frequency extension becomes increasingly obvious here, as does the arrangement of the speakers in a quad formation surrounding the audience, creating a powerfully immersive experience. After the crescendo reaches its apex, there is a brief respite before Chavez returns with a series of resounding booms that are each part of internally variegated, gestural microphrases and are by far the loudest peaks of the performance yet. The extremely wide dynamic range that Chavez and Block employ capitalizes on both the audience’s focused and attentive listening in this live situation and the capabilities of the sound system. The effectiveness of this dynamic range would be difficult to convey over a recorded medium alone, it seems.

Meanwhile, feedback from Block’s walkie-talkie feedback produces several clear pitches, with prominent resonances in the region around 700 Hz, though obviously outside of twelve-tone equal temperament. The walkie-talkies’ hisses and beeps fade until eventually, at 11:25, settling on one pitch, with a fundamental frequency around 1005 Hz (corresponding to B5), which swells and recedes in amplitude, apparently controlled by Block.

Twenty-five seconds later, a second clearly pitched tone joins in, with a fundamental frequency of 663 Hz, corresponding to E5, a perfect fifth below the first. Unlike the first tone, this new pitched tone maintains a steady amplitude envelope. Block holds a walkie-talkie in her left hand as it continues to drone, and with her right she begins playing on the piano keyboard, first a prepared note with a clear pitch at F5. Again not only do we hear direct acoustic sound from the piano, but more prominent is the amplified, distorted sound, conveyed from the string
via the metal sheet to the contact microphone, which is in turn connected via an equalizer pedal to a small Radio Shack amplifier and finally picked up by the piano microphone.

Next Block plays another piano note, E5, that matches the pitch of the existing drone, and follows this with A#5. Combining the piano pitches with the droning E5-B5 dyad results in the progression of ordered pitch-class intervals \((7) \rightarrow (16) \rightarrow (7) \rightarrow (61) \rightarrow (7)\). The two trichords are not only both members of the \([016]\) set class—like the succession of plucked string notes were earlier—but are also clearly inversions of one another (see Figure 5.4).

![Figure 5.4: Pitches of the drone combine with Block's piano notes to form chords (the second and fourth) that are inversions of one another. (The treble clef is implied.)](image)

In this phrase Block plays with the alternation of the consonant perfect fifth with the dissonance of the minor second. In fact, as Block continues this sparse piano melody atop the harmonic drone of the perfect fifth, she emphasizes pitch classes that are major or minor seconds apart from the drone’s E and B, and she often moves from note to note by intervals (in pitch class) of seconds (see Figure 5.5).

![Figure 5.5: Block's piano melody beginning around 12:00.](image)

Moreover, as this melody continues, the droning B5 varies more and more in pitch, furthermore
adding to the tension between consonance and dissonance, regularity and its opposite.\textsuperscript{183}

Around 13:30, one additionally senses a play with spatialization and filtering; we not only hear the acoustic piano directly and through the PA speakers but also distorted (loudly, and low-pass filtered) through the speakers. Gradually the space between the piano melody’s notes decreases, lending a sense of directionality to the section. Mid-way through the melody the droning B5—which has become louder and more erratic in both pitch and amplitude—is replaced by a swelling sine tone hovering around 408 Hz (G#4), apparently from a walkie-talkie interacting with the piano.

By the end of Block’s melody, the droning G#4-E5 are left to continue, bridging sub-sections, and seemingly sensing the melody’s conclusion Chavez now comes to the foreground with increasingly active turntable growls. These glitch-like ruptures articulate what sound like reversed, low-pass filtered piano notes. Block enters this fray twenty seconds later, playing the piano keyboard to sound a forte, distorted Bb3, letting it decay for seven seconds, and then playing another note a tritone lower, E3. The distorted piano matches Chavez’s low-fi fragments, \textsuperscript{183}

\textsuperscript{183}This play between consonance and dissonance, the tonal quality of the drone’s perfect fifth and the largely “atonal” melody, as well as the clear use of pitch-based material in this section as opposed to much of the rest of the performance calls to mind Block’s response to an interview question on the relationship between harmony and dissonance. She says,

For me the question is not of choosing between types of tonality (or atonality), rather whether to use tonality (or pitched material, to be more exact) as a constant element in a piece, as is the case in most traditional music, or whether to use it as one incredibly powerful element in a larger composition which also includes non pitched sounds, and the lack of sound. I think of this in visual terms, where shades of blacks, whites and grays are used to create the larger parts of a canvas, and colors are used sparingly, yet effectively. Too much color can cheapen the effect of the color. Too much pitch can cheapen the effect of tonality. With this larger point in mind, I think that when tonality is used, harmony and dissonance can be used in one work. I don’t like limiting myself to one type of tonal system. I don’t think listening to a lot of atonal material is fun, and tonal harmonic material has gathered so many associations over time, so they should all be used carefully. (Fischer, “15 Questions to Olivia Block.”)

Clearly, Block in this performance is using pitched material as one element amongst many others, including non-pitched sounds and relative silence. The confinement of clearly pitched—and especially melodic—material largely to this part of the performance strongly contributes to the sense that it is a distinct formal section, tied to the preceding and following sections by the pitched walkie-talkie drones.
and now Chavez produces a crescendo of low rolled piano octaves on D, and when it is cut off at its peak Block answers it immediately with a forte F2. Several seconds later Chavez again sounds the low rolled piano octaves, to which Block adds a B♭3, and almost simultaneously Block plays a G2 and Chavez cuts off the record. Block now adds another note, B♭2, to the decaying G2, and Chavez pricks the reversed piano fragments with active, noisy transients. Block plays one last note, D2, and as it decays the droning sine tones waver in frequency and then dissipate. As they do, Chavez begins a short, low-frequency, dynamically extreme crescendo. The crescendo ends abruptly at its peak, marking a clear structural division, and leaves only the 408 Hz (G♯4) sine tone droning in its wake.

Section 3

Several seconds later, Block picks up the mallet again with her left hand and uses it to strike low prepared piano strings occasionally while her right hand adjusts knobs on an unseen device inside the piano. Block has prepared these strings with small alligator clips, and when these strings are struck they produce a percussive, inharmonic timbre. With her right hand she holds a microcassette recorder near the microphone, and above a bed of Chavez’s pops emerges a warbly, ambient melody, sounding like something between a Mellotron and a reversed recording of a piano. This melody worries the phrase D-B-E-A several times, the pitches sometimes occurring in different order and octaves, before ending precipitously fifteen seconds later. Chavez’s cuts and pops continue, and a few moments later Block again uses the mallet to strike a low prepared piano note, out of whose remains emanates afresh the warbly melody, now alternating with the same pitches in an ambient drone. This continues for the next thirty seconds while Block removes from inside the piano a small Radio Shack amplifier and an equalization
pedal. Block cuts off the tape melody, strikes the metal sheet, and immediately after once more sounds a low prepared piano note.

Section 4

The percussive, metallic clang heralds a new formal section, and Chavez stops the turntable and replaces the record. Block follows her prepared piano note twenty seconds later by two more, resembling church bells in their inharmonicity. Block continues playing similarly sparse prepared piano notes for the next minute and a half. Towards the end of this time Chavez begins dropping pebbles onto a record, and, having adjusted the mixer’s equalization settings specifically, produces occasional reports of several successive, spectrally rich attacks. Here Chavez uses the turntable as a type of contact microphone, magnifying the sounds of the pebbles striking the record. Immediately following one of these pebble drops, and as one more prepared piano note decays, Block picks up a spring drum with her right hand, and, holding it to her right side next to the piano bench, begins shaking it, producing a generally low-frequency, noisy, and reverberant texture. Chavez’s pebble drops become more frequent and louder, and Block plays several more low prepared piano notes with her left hand as the spring drum’s texture becomes more regular. During this section, a sine tone around 200 Hz (approximate G3) swells and recedes, its source not immediately obvious.

After Chavez’s loudest and most dense series of attacks—near the 21-minute mark—Block picks up a large tuning fork with her left hand and with it begins to bow the piano strings, eliciting a sequence of pitched, harmonic whistles, generally in the range of 1500–2500 Hz. She

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184 Of rose quartz and turquoise, Chavez informs me later.
185 Also known as a thunder drum. Interestingly, these names indicate aspects either of the instrument’s construction or its sound: a metal spring is attached to the center of one of two drum heads on either end of a tube-like body, and the sound the drum produces when shaken is not dissimilar to thunder.
meanwhile continues to shake the spring drum with her right hand as Chavez’s transients recede, replaced at 21:18 by a swelling sine tone around 91 Hz. At 21:45 Chavez’s large and vigorous gestures shake her entire table, drawing out a succession of low-frequency rumbles that ebb and flow until around 22:20, when, along with Block’s bowed piano string and spring drum, they fade to silence.

Section 5

Quietude pervades the proceeding minute, colored by occasional and very subtle high piano scrapes first around 4200 Hz and later around 2200 Hz. At 23:12, while still bowing strings with her left hand, Block begins using her right hand to chromatically sweep across the piano strings in gestures reminiscent of those in Henry Cowell’s “string piano” compositions like The Banshee. Meanwhile Chavez returns with a thirty-second volley of transients followed by background harmonic tones as earlier. Block’s sweeps and scrapes decelerate until Chavez resumes with pops and clicks punctuating occasional glissandi, Block’s gestures gain momentum until 24:59, stopping when Chavez blasts a harmonically rich tone, somewhere between a didgeridoo and a foghorn, with a fundamental frequency around 53 Hz. As this tone fades, Chavez moves her fingers about the mixer and turntable, and the pops and clicks that emerge differ in their stereo panning, some appearing to emanate from the left speakers and some from the right. These continue until dissolving into relative silence at 25:24. Gradually Chavez fades in very quiet mid-upper frequency turntable noise, and then at 26:00 Block adds occasional bursts of walkie-talkie noise, which become more steady-state around 26:45, at which point

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186 In adopting the name “string piano,” Cowell distinguished this use of the piano from more traditional piano technique using the keyboard. Contrast this with Cage’s “prepared piano,” in which structural modifications to a piano—in the form of bolts, screws, pieces of rubber, etc. wedged between its strings—lead it to be considered a distinct instrument. Both of these innovations already to some degree problematize extant instrumental concepts.
Chavez drops out. Block now again holds the microcassette recorder to the microphone with her left hand, and we hear a recording of church bells, lowpass-filtered and somewhat distorted, but still somewhat reminiscent of the inharmonic prepared piano notes Block played earlier. The bells fade while the irregular noisebursts continue.

After setting down the walkie-talkie, Block picks up a frother and places it first over the high piano strings and then, standing up, positions it near the bridge. The momentum and volume build, and by 28:30 Block’s frothing sounds are busily erratic and gestural. Chavez now adds to the energy, playing the mixer with the fingers of her left hand in almost a traditionally instrumental fashion, calling to mind Sachs’s “instrumental impulse.” Meanwhile she manipulates the record with her right, producing at 28:35 two clearly pitched tones, around 1000 and 2000 Hz respectively, in quick succession, the second sounding an octave higher than the first. Chavez is using the mixer’s “kill” switches to mute and unmute different frequency bands (“bass,” “mid,” and “treble”). When the bands are muted, she adjusts their gain so that each time a band is unmuted the spectrum of the resulting sound is variously sculpted. The record, it turns out, is a test tone record, and over the next two minutes Chavez plays primarily short, clearly pitched tones, with fundamental frequencies around 52 Hz (near G#1), 1000 Hz (B), 492 Hz (B), 3000 Hz (F#), 355 (F). Occasionally there seems to be a suggestion of low, fragmented, and slowed-down speech. By 30:00, the texture has begun to thin, with Block, still standing, removing the frother and in its place scraping out a band of low-pass filtered noise that recedes until ceasing entirely at 30:51.

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187 Similar to the fundamental frequency of the earlier didgeridoo-meets-foghorn blast; was that also from this test tone record?
Section 6

Thirty seconds of silence are broken by a pianissimo exchange of Block’s high piano notes and microcassette fragments and Chavez’s needle scrapes and buzzes. At 32:20, Chavez again plays a sequence of clearly pitched tones, while Block picks up the yarn mallet with her right hand and anew scrapes inside the piano, fading out over the course of the next minute. Microcassette snippets become sparser until dissolving into a succession of two long, quiet drones, like bandpass-filtered, barely-there buzzes. Several shorter fragments, the last ending at 34:09. Block sits poised, cat-like, and turns toward Chavez. After the two exchange a series of knowing nods and smiles, the audience applauds as one.

Whereas Otomo Yoshihide and Sachiko M had performed together as a duo frequently over the course of seventeen years, this is the first duo performance by Block and Chavez. And if anything, Block and Chavez perhaps make more conscientious efforts to directly engage dialogically with each other in order to foster a sense of trust and shared responsibility. Chavez quite obviously follows Block’s movements with her eyes and often seems to respond fairly directly to her contributions. Block, whose piano faces away from Chavez, makes visual contact with her only at the conclusion of the performance, yet one has the sense that Block is listening intently throughout the set, and the numerous points at which both performers facilitate directionality through complementary activity gives one the impression that they are—to use an inappropriate metaphor—on the same page. In fact, this sense may even result from the fact that this is the duo’s inaugural meeting: whereas long-standing collaborations often establish a level of trust that gives individuals license to experiment and engage with one another more obliquely, a first performance may instead encourage more direct engagement.
Although the long history of Sachiko M and Otomo Yoshihide’s partnership clearly distinguishes them from the nascent collaboration of Block and Chavez, they are both duos, and the ubiquity of duo collaborations within practices of electroacoustic improvisation warrants some consideration. It is significant, for instance, that—while as Abbey notes the AMPLIFY festivals have grown to include compositional elements—all nine of this edition’s sets are by duos. We have already seen some possible reasons for this prevalence. Otomo, for instance, expresses his preference for the unexpected, which to him is directly linked to his lack of control: lack of control over both one’s instrumentarium and the actions of a playing partner. Thus he favors situations involving other collaborators, instrumental and human. Rowe notes that the room in which one performs becomes apparently more complex when there are two performers rather than one, and with collaborators comes the expansion of the range of listening options: when playing solo, one presumably is engaged in listening to everything one is doing, but when playing with others one may choose what to listen to (or what not to listen to). Extending this, with even more collaborators the range of listening options again diminishes, as one in many situations can not possibly listen to everything occurring in the room. Thus it seems for at least some improvisers, the duo format strikes a balance between the uncontrolled and unexpected and the range of available listening options. For his part, as a listener Abbey prefers duos because on the one hand solos offer no surprise nor interaction to the performer, while larger groups allow the musician to remain in the background. Duos challenge the performers while not allowing any hiding space.\footnote{Joe Panzner, “An Interview with Jon Abbey,” \textit{Stylus}, June 30, 2003, http://www.stylusmagazine.com/articles/weekly_article/an-interview-with-jon-abbey.htm.}

While Chavez’s instrumentarium is obviously similar to Otomo’s, she extends its modular
aspect in distinctive ways. For example, for much of his performance Otomo did not use records at all, instead concentrating on interactions between the mat and needle and at points with the needle and the room sound in a feedback loop. On the other hand, not only does Chavez use a surfeit of records singly but oftentimes in simultaneous combination with all or parts of others, the records—or shards thereof—becoming modular components that interact not only with the turntable and her bodily gestures but indeed with each other.\textsuperscript{189} Although perhaps difficult to observe from the perspective of the audience, her propensity for using variously damaged needles—like Otomo’s guitar pick-\textit{cum}-stylus, for example—furthermore illustrates the agency of particular modules, their brokenness compelling the observer to attend to their idiosyncrasies, their affordances and constraints, their agency, rather than treating them as transparent and innocuous. Connecting the turntable with objects like quartz pebbles furthermore suggests myriad ways in which turntables are extensible, capable of networking with practically limitless numbers of material objects. Moreover, the various modules demonstrate their dynamic nature as they change over time: the needles become damaged (or more damaged), records become scratched or melted or fragmented or chipped, and finally their damaged nature in turn affects the needle, perhaps further damaging it.

Michael Nyman described the experimental approach to musical instruments by coining the phrase “instrument as total configuration.”\textsuperscript{190} Nyman writes that experimental composers have extended the historical tradition that considers the piano’s keyboard-hammer-string mechanism from the viewpoint of the keyboard alone. Cage’s prepared piano experiments

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\textsuperscript{189} Among the many techniques cataloged and described in \textit{Of Technique: Chance Operations on Turntable} is the so-called “3 layered technique,” in which a 45 rpm record is layered atop a 7” record which is in turn atop a 12” record. The technique requires one to push down hard on the 45 rpm record, the performer’s gesture mediated by the several records and the way in which they interact with each other.

\textsuperscript{190} Nyman, \textit{Experimental Music}, 20.
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maintain this vantage point but addend the piano mechanism by placing objects between the piano strings, while works like Takehisa Kosugi’s *Distance for Piano (to David Tudor)* place objects between the performer and the keyboard and thereby become both extensions of the performer and the keyboard. On the other hand, one may view the piano instead from the perspective of the strings, as Henry Cowell’s “string piano” demonstrates. Or one may regard the piano as a large object with various exterior surfaces and a complex inner mechanism and choose to use any of these parts singly, in tandem, or with other objects. Consider, for example, the use of piano in Helmut Lachenmann’s *Guero* (1969), which even when using the keyboard employs it not to initiate the process of hammers striking strings but instead for the sound of the keytops themselves, thereby treating the piano as an elaborate type of percussive scraper instrument (the Latin American güíro to which the piece’s title alludes). Cardew’s 1964 piece *Memories of You* encompasses these emerging attitudes toward instrumentality in experimental composition, its notation comprising diagrams of a grand piano’s outline and circles indicating where in three-dimensional space sounds are to be made in relation to the piano. Nyman writes, “Thus the piano becomes a kind of ‘umbrella’ covering a range of sounding activities whose only direct connection with the piano may be the fact that they take place with reference to the 'piano space.’”

Block’s instrumentarium not only treats the instrument as “total configuration” but as total *possible* configuration, adding significantly to the number of components that may make up any such configuration. The piano, for example, does not have only one fixed configuration, but as an expanded or augmented instrument it has myriad possible configurations, dependent upon

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the particular relationship of its component parts and the various implements with which Block augments it: milk frothers, an eBow, walkie-talkies, a metal plate, a contact microphone, and so forth. Moreover, the instrumentarium’s configuration at a specific point may exclude the piano’s components altogether. For example, in the set the following night with Jason Lescalleet she barely uses the piano at all, instead using a shortwave receiver for much of the performance, and in performances at venues where a piano is not available Block often replaces it with an autoharp. Instrumentality is not predicated on actions done in relation to a commonly accepted traditional musical instrument, and the piano is not necessarily an “umbrella” in such cases, held aloft and encompassing all the sundry components. Rather the instrumentarium is a dynamic network in which the piano may or not participate at a given moment, specific configurations of the network existing perhaps only evanescently, and the total possible configurations varying from one performance to the next.

In this light, we might consider Rowe’s description of the project 4g, also known as “Four Gentlemen of the Guitar,” comprising Oren Ambarchi, Christian Fennesz, Toshimaru Nakamura, and Rowe himself. Rowe writes, “At the centre of this project is the guitar, perhaps the world’s most ubiquitous instrument. Here we are looking at its extended possibilities – that is to say rather than summing up guitar-ness in a Picasso-like way, we would be more interested in Mondrianesque extensions.”

One wonders what, for Rowe, the guitar’s “extended possibilities” are. He continues, “Christian and Toshi, although both guitar players, have performed in public mostly on instruments that have become physical and musical extensions of the guitar”—laptop and mixing board, respectively. Rowe and Ambarchi, on the other hand, have

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“preserved the basic form of the guitar, obviously exploring its ‘non-guitarlike’ possibilities, but always maintaining its essential ‘guitar-ness’.” According to Rowe, then, the guitar’s “extended possibilities” include components presumably initially used in conjunction with the guitar—laptop and mixer, specifically—that come to be used on their own, apart and not obviously connected, at least physically, with the guitar. Instead, they may be connected musically or conceptually. Rowe adopts a stance not dissimilar from Nyman’s characterization of Cardew’s Memories of You; where in Nyman’s formulation of Cardew instrumentality comprises actions done in spatial relation to a physically present piano, here instrumentality relates to a guitar that is physically absent but perhaps latent, existing in one’s historical connection with it. While we needn’t necessarily prioritize traditional musical instruments in our conceptions of new instrumental configurations, in Rowe’s view we might consider the ways in which components form networks not only in specific physical connections with other components but also in ways experiential and historical.
Figure 5.6: Maria Chavez’s instrumentarium for her performance on October 30, 2015.
Figure 5.7: Olivia Block's Instrumentarium for her performance on October 30, 2015.
While the set before Chavez and Block’s likely informed to some extent decisions they made during their set, the same could obviously not be so for the set that followed theirs, by Graham Lambkin and Michael Pisaro. However, it is worth considering the extent to which, to recall the advertisement’s words, the “carefully structured” performance order resulted in a whole greater than the sum of its parts. The overall impression of Michael Pisaro and Graham Lambkin’s set which follows is of Cage and Tudor meet CBGB, which is not entirely surprising given Pisaro’s pedigree as a prominent member of the post-Cage Wanderweiser collective, and Lambkin’s as the vocalist of the post-punk group The Shadow Ring. Especially Cageian is the simultaneous presentation of apparently unrelated works and ideas—Lambkin’s tape that runs through practically the set’s entire duration, Pisaro’s performance of various piano pieces (including, evidently, at least one of Cage’s), and uses of stones, percussion, and other “little instruments” in ways seemingly more prescriptive than a result of in-the-moment necessity. Meanwhile, Lambkin’s humming and growling as well as his *art brut* way of playing the piano, harmonica, and recorder—not to mention the uniformly loud volume—suggest a punk aesthetic. Often it seems that Lambkin menaces over Pisaro, physically towering over him, acting unpredictably, and frequently nearly drowning out his musical contributions, despite the piano’s fairly high amplification level. Early on in the performance, Lambkin, throwing the candle jars to the ground, extinguishes the main source of light, causing the bulk of the set to occur in near-darkness. When Lambkin finally literally pulls the plug on his electronics, Pisaro’s piano remains as he plays two final chords solo. As Pisaro’s last chord fades, it becomes clear that at least a decent portion of the audience is enthusiastic, shouting whoops of approval. The applause dies down rather quickly, leading one to wonder about the general consensus: did Lambkin lose the
audience’s trust? Did proximity and simultaneity trump interaction, and if so, was it to the music’s detriment?

Regardless, there does seem to be a clear arc in the order of the evening’s duos: Unami and Meehan playing quietly, on the floor, with the space fully lit; Chavez and Block playing using a wide dynamic range, sitting at chair-level, and with lights partially dimmed; Lambkin and Pisaro playing at a generally loud dynamic level, often standing or moving around, with the lights were completely out. Moreover, another arc connects the diverse approaches to instruments. Unami’s and Meehan’s methods employ severe constraints, both in the limitations their instrumentaria present and the ways in which they use them. Meehan, rather than playing distinctive rhythms on the ride cymbal, for instance, plays only textural rolls; similarly, although the bells of his contraptions may be played individually as discrete notes, he does so only sparingly, instead almost entirely playing them *en masse* to form a textural block. In the leveraging of constraints, Meehan’s and Unami’s attitudes here are similar to Sachiko M’s. Chavez and Block, on the other hand, foreground the modular, extensible natures of their instrumentaria, and also variously make use of pre-recorded sounds in the form of records and microcassettes. Finally, Lambkin and Pisaro—in their incorporation of a pre-recorded tape for practically the entirety of their performance, the notated compositions that Pisaro performs, and multiple simultaneous practices and instrumental approaches—embrace a maximalist stance, far from Meehan and Unami’s more reductionist one.
Chapter Six

AMM at the Huddersfield Contemporary Music Festival, November 29, 2015

Whereas Olivia Block and Maria Chávez’s duo meeting was a premiere performance, AMM’s performance on November 29, 2015, represents the opposite end of the spectrum. The performance—the closing concert of the Huddersfield Contemporary Music Festival—is in celebration of the fiftieth anniversary of the group, and includes original members Eddie Prévost and Keith Rowe. In fact, it is the first AMM performance to include both Prévost and Rowe since 2004, when an acrimonious rift precipitated by the publication of Prévost's book *Minute Particulars* caused Rowe to leave the group. At that time his departure—as well as what instigated it—fairly shocked the improvisation community, as not only had Rowe been a founding member of the group, but the trio with Prévost and Tilbury had formed the basis of the ensemble since the late 1970s, a long enough time for many to consider it to be the group’s “classic” lineup. At issue was a series of apparent attacks on Rowe that Prévost published—much to Rowe's surprise—in *Minute Particulars*. The nature of these attacks and the responses to them both engage with several of the threads running throughout this work and help present the context from which this particular performance would emerge, so it is worth reviewing them in some detail before discussing the performance itself.

In the book Prévost first singles out Rowe for criticism by asserting that Rowe “has quite vehemently denied that dialogue has any (conscious?) place within his music,” and that his work “suggests a preference for musical co-existence rather than conscious processive interactivity.”

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194 Ibid., 10.
Rowe’s eschewal of dialogue is for Prévost apparently a rather serious flaw. His previous book, *No Sound Is Innocent*, develops at some length the thesis that “meta-music” (meaning AMM’s improvisational practice) depends upon the “twin analytical propositions” of heurism and dialogue.\(^{195}\) In one of many similar formulations, Prévost writes, “Dialogue is the interactive medium in which the products of heurism are tested. Sounds are placed: placed in contrast to, in parallel to, in imitation of, in respect of, without regard to, other sounds.”\(^{196}\) By heurism Prévost means the process of experimental discovery in performance: “[I]mprovising musicians are searching for sounds and their context within the moments of performance.”\(^ {197}\) This contrasts with types of so-called “formal music e.g. a Beethoven string quartet or even a pop song,” where “most of the technical problems of preparing for a performance are solved and refined before the intended presentation.”\(^ {198}\) And whereas in such types of formal music a predetermined score or other prepared composition mediates the relationships between the musicians, in free improvisation there is no such mediation, and the relationships between the musicians are therefore directly dialogical. To shun dialogue—as Prévost accuses Rowe of doing—is therefore to remove the interactive, relational element so integral to the practice’s musical and political success, which in Prévost’s view are deeply connected.

He furthermore argues that the search for new instrumental means of production contributes to the dehumanization of performance: new technologies may encourage the


\(^{196}\) Ibid., 3.

\(^{197}\) Edwin Prévost, “Free Improvisation in Music and Capitalism: Resisting Authority and the Cults of Scientism and Celebrity,” in Mattin and Anthony Iles (eds.), *Noise and Capitalism* (Donostia-San Sebastián [Gipuzkoa]: Arteleku Audiolab [Kritika], 2009), 42. Prévost clearly bases the formulation of his twin analytical propositions—and heurism in particular—on Cardew’s famous quotation: “We are searching for sounds and for the responses that attach to them, rather than thinking them up, preparing them and producing them. The search is conducted in the medium of sound and the musician himself is at the heart of the experiment.” (Cardew, “Towards an Ethic of Improvisation)

\(^{198}\) Ibid.
abandonment of dialogic, interpersonal interactivity and along with it collectivism and creativity. “The potential interactivity of materials has assumed an ascendancy over the interactivity of people,” Prévost laments. In fact, Prévost reinforces the notion that electroacoustic improvisation as a practice foregrounds instrumental agency, but he simultaneously warns against doing so to such an extent that it displaces the interactivity of the human performers. As we have already seen in Chapter Three, Prévost himself seeks to foreground the agency of his instruments, so his warning seems to be one of degree and not of kind.

Later, in a section apparently aimed not so much at Rowe but at his musical associates in groups like M.I.M.E.O., Prévost decries the practices attendant with the ascendancy of electronic means of production, particularly laptops, within improvisation. While he notes the potentially liberating effects of computers and their potential to breathe new life into the medium of informal music-making, he also recognizes myriad troubling developments. He argues, for example, that command over programming languages has in some places replaced command over instrumental facility and that sampling has obviated the development of instrumental technique. Therefore, he suggests, electronic musicians do not need to develop a personal, physical, tactile relationship with their instruments in the way a performer of a traditional acoustic instrument would, and the implication is that this encourages a “soft alienation” from the physical world, in turn resulting in a more impersonal music. Again, for the present work, if true this does not dispute the theses but rather argues that this should not be the case, a point to which we will return shortly.

Prévost notes, as many other observers have similarly, that watching a laptop ensemble perform is akin to watching accountants or technocrats at work, and that any communication or

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interaction is neither spontaneous nor dialogic but instead only conceptual. He finds it problematic that musicians’ machines can operate while their users’ minds are elsewhere, and he rails against sampling and in particular the practice of taking another performer’s sound—oftentimes without one’s permission—and manipulating it. He argues that electronic musicians depend on loudspeakers for sound diffusion, and that due to the shortcomings of loudspeakers their sounds are thus inherently impoverished. Finally, he notes the tendency for electronic musicians to in a significant sense dominate other performers by means of their high volume.

A bit later Prévost attacks the reductionist movement centered around Berlin. He notes a possible precedent for reductionists’ use of silence and quietude in AMM’s long silence, and writes that “[I]f Radu Malfatti is indeed the Pope of reductionist music, then Keith Rowe is its Jesus Christ,” an apparent compliment. However, Prévost, continues, “Although at the moment even the messiah himself seems currently to be somewhat in thrall to the theology of reductionism.” The problem with reductionism, according to Prévost, is that, “What is produced seems . . . too often dull in its undifferentiation” and “comes over as a rather facile doomy religiosity.”

Prévost argues against subscribers to “anti-skill theory,” those who see practicing their instruments as a hindrance to spontaneity. This seems to be an implicit jab at Rowe, who has said, “I never practise,” and that fidgeting around on one’s instrument at home “dilutes the relationship between you and the instrument.”

Later Prévost spends two full pages denouncing Rowe’s 2000 album *Harsh* on the

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201 *Ibid*.
203 “Interview with Keith Rowe.”
204 “Interview with Keith Rowe.”
grounds that by musically representing harshness without offering obvious empathy or catharsis it serves as a masochistic endeavor. Rowe intended the album “rather than merely a ‘recording’ of a performance” to be “more of a statement about ‘Harshness’ . . . [e]conomic harshness, political harshness, cultural harshness.” Prévost, however, fears that listeners may identify with, and hence share the agony of, those subjected to the types of harshness Rowe wishes to represent. If so, according to Prévost, “[W]e are dealing with a virulent rash of virtual masochism.”

A subsequent chapter critiques MIMEO’s May 20, 2001, performance with John Tilbury at the Angelica festival in Bologna, Italy, as well as the recording of the performance, released as The Hands of Caravaggio Prévost quotes in entirety the note that Tilbury wrote to accompany the CD but which instead appeared on the Erstwhile website. The performance was designed as a type of twenty-first-century piano concerto, with the orchestra comprising a varied assemblage of electronic instruments and the pianist serving not as a triumphant Romantic hero but as a victim or anti-hero, at least in Tilbury’s view. For not only must Tilbury as piano soloist struggle against the power of the electronic concerto grosso, but his actions are impeded by another musician, Cor Fuhler, who simultaneously plays the inside of the piano. While Tilbury notes the complex ethical questions this situation raises, Prévost alleges moreover that the album apparently documenting this performance is edited to remove any sense of struggle or moral scruple. Therefore, Prévost argues, the recording is deceitful, covering up the metaphorical sacrificial slaughter alleged to have occurred. Prévost quotes from Alvin Curran, who informs Prévost’s viewpoint that the recording masks any sense of the conflict and compunction of the

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206 Keith Rowe, liner notes, Harsh (GROB 209), 2000.
207 Prévost, Minute Particulars, 62.
208 Erstwhile 21, 2002.
live performance. Prévost himself did not attend the performance and so relies practically entirely on the testimony of Curran in forming this argument.

It is one of several times in the book that Prévost positions Tilbury and Rowe on opposing sides of an argument, and it is clear whose side he takes. Such is the case a few pages later, when he takes Rowe to task for reputedly claiming to not listening to his AMM compatriots in the course of performance. Prévost writes, “Keith Rowe, on the onehand, maintains that he takes no heed of anyone else’s musical contributions in his performances – including those with AMM.” Tilbury, on the other hand, “asserts that his musical action is informed by listening to everything (both on and off stage) that is going on.” Prévost incredulously attacks Rowe’s alleged position and again criticizes his rejection of dialogical interaction, concluding that, “Rowe’s narrative suggests a solipsism . . . a realm of serious anti-social make-believe.”

Such pointed personal attacks validated Prévost’s warning in the book’s acknowledgements that the “no-holds-barred atmosphere” in AMM’s debates “is certainly reflected in some of the material below,” yet they nevertheless surprised critics and musicians alike—not to mention Rowe himself, who had no idea what Prévost had published until friends alerted him to a review. About his writing Prévost claimed, “The validity of this activity will be assessed ultimately by how resonant the responses are to these texts, even though many of my theses may come to be modified by myself or crucified by others.” Something approaching the latter happened rather quickly, with Walter Horn, in an extensive and highly critical review for *One Final Note*, concluding that much of *Minute Particulars* is “like so many country sermons, muddled, platitudinous, and wrongheaded.”

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209 Ibid., 91.
210 Ibid., 93.
211 Ibid., 3.
Electronic improviser and composer Paul Obermayer responded to many of Prévost’s arguments against electronics in a personal exchange later posted on the website of FURT, the duo of Obermayer and Richard Barrett. Obermayer’s general thrust is that many of Prévost’s grievances have historically greeted innovations in acoustic instruments and that in fact similar arguments can be made just as easily against acoustic instruments. He answers, for instance, that sampling is an extension of one’s memory much like drums and drumsticks are extensions of one’s arm movements. Both of these “extensions of self,” Obermayer argues, “require leaps of the imagination – which is often overlooked when it comes to acoustic instruments.” Similarly, arguments against the “unmusical” nature of laptops are akin to those made against early pipe organs; in neither case is it appropriate to dismiss a class of musical instruments wholesale, although one can note shortcomings in specific instruments and argue for their continued refined development. That minimal effort is required to produce a deafeningly loud sound on an electronic instrument is only a difference in degree and not in kind from a pipe organ or other acoustic instrument, for example. Furthermore, not only electronic instruments may have short-term memories and may be used while their operators’ minds are elsewhere, but so too may acoustic instruments, like a gong (clearly a pointed and well-considered example).

Prévost was rather more conciliatory in his response than in the book, replying, “It must be obvious to you that I have no problem with electronics from BARK! Or FURT. Or many other musicians. I played with two electronic musicians in trio just this weekend. As you rightly say, electronics and computers are means of production. Just as are “conventional” musical instruments. It seems to me to be totally appropriate that the new means of production should be part of the material that musicians use. . . . I suppose it is reasonable to assume that I must have

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given that impression. But of course instruments themselves are strictly neither musical or
otherwise. It is the musician than makes them carriers of musical expression.”

While Obermayer and Prévost reached a détente, concluding that on sampling they would
only have to agree to disagree, many other musicians were less willing to excuse Prévost’s barbs.
Violinist, laptop improviser, and M.I.M.E.O. member Phil Durrant, for instance, wrote on the
Reaktor forum, “i will never ever forgive eddie for this book. how anyone could play with a
musician for over 30 years and spend most of the book criticising him and the musicians he plays
with.....”

Jon Abbey, founder of Erstwhile Records, the label that released The Hands of
Caravaggio, wrote Prévost a letter detailing the errors in his chapter on the album. Abbey,
describing his letter, calls the chapter “absurd” and notes among other things that, “when a
concert is played in quad, with only 6 out of 12 musicians going into each of the four speakers,
there’s no place in the room except in the dead center where you can hear all 12 musicians
balanced.” Thus the perspective that Alvin Curran, offers, for example, would be quite different
from that of an audience member sitting elsewhere in the room, and this fact alone accounts at
least partially for the difference between Curran’s recollection of the concert’s sound and that of
the CD. Abbey continues, “Cor Fuhler (who was in the middle of the room) mentions in his
online liner notes that the CD accurately reflects his memories of the show, but Eddie chose to
ignore these as he didn’t want to hear about anything getting in the way of his ‘thesis.’” Abbey
suggests that some of Prévost’s errors might have been avoided had he only consulted with those

214Ibid. Prévost in fact released FURT’s 2002 album defekt on his label, Matchless Recordings.
-ambient-century-by-m-prendergast.26229/.
216Jon Abbey, “Eddie Prévost's 'Minute Particulars,'” July 3, 2004,
(including Abbey himself) directly involved in the process, noting that it is “rarely a good idea to talk about the difference between a concert and a CD when you weren’t actually at the concert, or to talk about the postproduction process without asking the people who actually did it what they did, when we were all readily accessible.”

Shortly after the book’s publication, Rowe left the group, “very likely for good,” in Abbey’s words.217 Rowe had concluded, as he said in a 2009 interview, that “I was just a complete irritant in Eddie’s side, and I don’t want to be an irritant to anyone.”218 In the interview, Rowe strikes a resigned, disappointed tone marked by a sense of broken trust and astonishment that a friend and playing partner of nearly forty years would publish personal attacks instead of addressing them privately. About Harsh, Rowe objects to Prévost’s conflation of a musical statement about harshness with masochism. Regarding listening, Rowe says, “He accuses me of never listening, and I never said I never listen. I said sometimes I don’t listen, sometimes I do.” And Prévost’s characterization of The Hands of Caravaggio is, Rowe says, “just wrong” and “nonsense.” He continues, “I met someone a week ago in Slovenia who was at the concert he is critical of, and this guy had done a mini-disc recording and he said the mini-disc recording is very much like the CD that came out as The Hands of Caravaggio and yet you’d think from Eddie’s essay that it was a complete fake, a hatchet job.”

The last AMM performance as the trio of Rowe, Prévost, and Tilbury before Rowe’s departure was on May 1, 2004, a concert shared with MEV and later released on the double-CD Apogee. Prévost and Tilbury continued to perform as AMM, sometimes with guests and sometimes as a duo, despite Rowe’s belief that AMM requires at least three musicians and for

217 Ibid.
both Prévost and Rowe to be involved.\textsuperscript{219} This was not the first time that AMM had been reduced to a duo: from 1972 to 1976 Prévost and Gare performed as AMM (or as AMM II, to distinguish it from the group’s earlier incarnations), documented on the albums \textit{To Hear and Back Again}\textsuperscript{220} and \textit{At the Roundhouse},\textsuperscript{221} a recording of the duo’s ICES ‘72 performance. And later Prévost and Rowe performed as AMM III, documented on the album \textit{It had been an ordinary enough day in Pueblo, Colorado}, recorded in late 1979 and released in 1980.\textsuperscript{222}


\textsuperscript{220}Matchless MR03, 1978.

\textsuperscript{221}Anomalous/ICES01.

\textsuperscript{222}ECM/ JAPO 60031. This record is something of an anomaly in AMM’s catalog, not only because of the uniqueness of the Prévost/Rowe duo. It contains the most “conventional” guitar playing in any AMM release, Rowe having for the previous few years played in Trevor Watts’s Amalgam, an ensemble which married avant-garde jazz and fusion. However, Rowe’s more traditional guitar technique does not in this case mean there are fewer contributions from his otherwise characteristic table-top guitar, for on the record Rowe plays two guitars, often simultaneously, one laid flat and one played conventionally. (In fact, photos from the studio recording session, including one used for publicity for the album, shows three guitars: a solid-body guitar Rowe plays conventionally, a hollow-body guitar laid flat on a table in front of him, and a partially obscured third guitar laid flat on a chair to his right perpendicularly. It is unclear if Rowe uses all simultaneously, however. It seems likely that the third guitar is also used conventionally in place of the solid-body.) In the album’s liner notes, Steve Lake, who was present at the recording session, in Ludwigsburg, Germany, describes at length Rowe’s use of the radio and guitars, and writes specifically about the instrumental configurations involved in several particular events:

\begin{quote}
[T]he whirling helicopter blades/industrial-tamboura drone sound of "Radio Activity" is provided by one of Rowe’s guitars played horizontally, the propellers of a tiny Meccano motor striking the strings at the bridge. In the opening moments of the same piece, Prévost harries the cymbals with a bow. On "For A", the horizontal guitar is prepared with a length metal (a metre rule, if I remember correctly) threaded through the strings. Struck at an end - with an elbow, say, or the stock of a second guitar - the metal bar swings up a down, creating the ambulance siren effect, which agonizingly underpins the music. (Steve Lake, liner notes, \textit{It had been an ordinary enough day in Pueblo, Colorado} [1991].)
\end{quote}

The album opener “Radio Activity” seems to have a modicum of compositional content, as the piece was first performed shortly before the session on Charles Fox’s “Jazz in Britain” BBC radio show on April 23, 1979, and it appears to describe a retrospective of AMM’s musical practices from its birth until then. Rowe’s more conventional treatment of the guitar might refer both to his own current preoccupations as well as to those of Lou Gare, who in the duo with Prévost played largely in a conventional manner.

While exceptional in AMM’s catalog, \textit{It had been an ordinary enough day in Pueblo, Colorado} is apparently not the only time Rowe has used multiple guitars simultaneously in AMM. A photo displayed at the group’s archival exhibit at the Huddersfield Contemporary Music Festival in November, 2015—undated, but by appearances presumably from around the time of this record—shows the Prévost-Rowe-Tilbury formation in performance, Rowe playing one guitar conventionally while another lies flat on a table before him. Rowe also used multiple guitars for several years in the late aughts, including at the AMPLIFY 2008: light festival, although neither was played conventionally, and one—a Shadow Reinaldo Rivero Virtuoso Fingertrainer—was not designed as a proper guitar at all but, having only six frets and no body, was intended rather as a device to help classical guitarists’ strengthen their fingers.
After Rowe’s departure and over the succeeding years the duo of Prévost and Tilbury continued to perform as AMM, several performances of which were released on albums, including *Norwich*, “AMM_09/11/06” from the collection *from that mysterious forest below London Bridge*, *Uncovered Correspondence: a Postcard from Jaslo*, *Two London Concerts*, *Place sub. v.*, and *Spanish Fighters*. A performance at Trinity College of Music in Greenwich, England on January 13, 2008, billed as “AMM with John Butcher,” paired the duo with the soprano and tenor saxophonist and was later released as the album *Trinity*. The 2010 album *Sounding Music*, released under the unambiguous heading of AMM, documented a performance in London on May 3, 2009, with Butcher, cellist Ute Kanngiesser, and Christian Wolff (playing piano, bass guitar, and melodica). Other performances paired AMM with guests, including Sachiko M on December 13, 2004, at London’s Museum of Garden History, and David Jackman on November 1, 2005, at the London Musicians Collective Annual Festival.

During Rowe’s absence from the group, he seemed to become more active than ever, no doubt in part due to Abbey’s championing. Between 2004 and 2015, Rowe appeared on no less than fourteen Erstwhile releases and performed in several AMPLIFY festivals. Prévost’s recorded output likewise continued to swell, primarily on his own Matchless Recordings, on which he released over twenty recordings. While many of Rowe’s tours brought him to the United States, Prévost and Tilbury stayed closer to home, perhaps in accordance with Tilbury’s pragmatic boycott of the US, which he announced publicly in March 2003 after the invasion of

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223 Matchless MRCD64, 2005.
224 Matchless MRCD70, 2008.
225 Matchless MRCD78, 2010.
227 Matchless MRCD91, 2014.
228 Matchless MRCD94, 2015.
229 Matchless MRCD71, 2008.
Iraq. (Tilbury’s spot as guest soloist at the Summer Institute for Contemporary Performance Practice in Boston in June 2014 was a rare exception.) That fact, along with the rarity of a performance by the classic AMM lineup, has enticed a number of foreigners to travel to Huddersfield for this performance.

The fiftieth anniversary of AMM is being fêted not only with the festival’s closing concert, but with a number of other events. An archival exhibition open for the duration of the festival displays AMM concert posters, photographs, reviews, concert programs, and a bespoke vintage wine label. On Thursday, November 26, 2015, a group of musicians from Prévost’s weekly improvisation workshop give a performance. The following day there are screenings of two short films related to AMM. One is an excerpt from Action Space Film, a work-in-progress by director Huw Wahl, that documents the 1970s art collective Action Space. The excerpt features AMM (in Prévost-Tilbury duo form) performing in an inflatable structure built in 2015 by members of the Action Space collective as well as contemporary artists. The other film is Cornelius Cardew 1936–1981, a 53-minute documentary from 1986 on Cardew and his legacy, directed by Philippe Regniez. After the film screenings, Philip Clark interviews Prévost about AMM’s history.

And on Sunday, shortly before AMM’s performance, David Toop delivers a lecture entitled, “Later During a Flaming Riviera Realm of Nothing Whatever: the convolutions of AMM.” Toop’s talk takes place in Phipps Hall, a 100-seat lecture hall on the second floor of the University of Huddersfield’s Creative Arts Building. At the center in the front of the room there is a table, a chair, and a microphone. On the table lay a record player, a mixer, and a laptop.

in front of which are several opened books and pages of notes. Propped against the front legs of the table are the outer sleeves of AMM’s early records *AMM Music* and *The Crypt*. In contrast to the audiences at the performances discussed in the previous two chapters, the median audience age here is above fifty. Right around 5pm Prévost and Rowe enter, greet a few friends, and take their seats in the fourth row, separated by their wives. Shortly after, Toop starts his talk. He begins by saying that presenting any singular, authoritative view on the group’s history would be inappropriate before tonight’s concert, so he instead wants to ask the questions, “what is the identity of a group?” and “when is a group not a group?” In observing the proliferation of late-1960s improvisation organizations whose names were three-letter acronyms—in addition to AMM including MEV (Musica Elettronica Viva), SME (Spontaneous Music Ensemble), FMP (Free Music Productions), and ICP (Instant Composers Pool)—Toop suggests that this triangular facet is a metaphor for the relationship between an individual and a group. Within a group one faces the opposing tendencies toward competition and cooperation. After asking “When is AMM not AMM?” he states that while he has clear ideas about what is and is not AMM—an oblique reference to the past decade, when Prévost and Tilbury continued to perform as AMM without Rowe—his ideas quite possibly differ from those of the members.

As a means of introducing his first personal encounter with AMM’s music, Toop plays from the group’s first proper recording, *Live at the Royal College of Art*, recorded in 1966. The excerpt is the same one that Toop chose for the compilation *Not Necessarily “English Music”: A Collection of Experimental Music from Great Britain, 1960–1977*, and it already features in nascent form many features that would characterize AMM’s music: copious silences (some quite long); unconventional instrumental techniques including saxophone multiphonics, plucked piano

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strings, and scraped guitar; patient musical development; and variation in textural density and rate of activity. At times Cardew plays familiar, tonal left-hand chords; at one point a seventh chord’s root resolves downward by semitone. After fading out the excerpt, Toop says, “Cardew’s contributions always make me laugh; they’re so gauche!” He bursts into laughter, proving his point. Toop notes that this recording is the closest we can get now to his first experience of hearing AMM live, on December 30, 1966, when they shared a bill with Cream. In Toop’s recollection, that performance was similar to the Royal College of Art recording yet even more extreme. In preparing to play, Toop says, AMM looked not like musicians, but rather, “they really looked like technicians setting something up.” Rowe laughs. Toop says that during AMM’s performance he simultaneously had no sense that music was taking place, yet felt it was totally cohesive. Afterwards, the members tore down their equipment as quickly as they had set it up, and Toop was left dumbfounded. Years later, Toop would mention the gig to Rowe and Prévost, who recalled it with a modicum of disgust, to which Toop protested, “But it changed my life!”

Toop proceeds to detail the various connections between AMM and groups like Cream and Pink Floyd, who were both, like AMM, beginning their journeys in London around the same time. He notes that at one point it was not difficult to imagine AMM playing huge stadium tours in the US to crowds of 50,000; *AMMMusic* was, after all, released by the major record label Elektra. Of course, such a fate did not precipitate.

Toop next plays an excerpt from *AMMMusic*, after which he describes the “silences within a silence” characteristic of much of the group’s music. Although apparently arrived at independently of Cage, AMM’s incorporation of “silence” proved a similar point: there is, in

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233 Speaking of AMM’s early history, Prévost says, “Actually, in 1965 not only were Cage’s ideas unknown to AMM, but most of the musicians had only the vaguest idea who he was! In an interview with [Barry] Miles of *IT [International Times]* I was asked about Cage’s influence, and simply assumed he was a drummer I hadn’t heard of. Awareness—and a certain confirmation—arrived with Cardew, though it was to be several years before I
our common experience, no such thing as silence, defined as the absence of all sound. Cardew apparently references this definition in his description of AMM’s early meetings when he writes of proximity to silence rather than silence itself: “Sessions generally lasted about two hours with no formal breaks or interruptions, although there would sometimes occur extended periods of close to silence.” Yet of course colloquially we use “silence” to describe not the total absence of sound but its relative absence. The amount and quality of sound that exists in such quietude varies tremendously. An entire performance might be considered a silence—a period of relative quietude—and portions of this performance might in turn be quiet relative to the rest: a silence within a silence.

From this point on—above and between selections from AMM Music, The Crypt, and finally “Aria” from 1996’s Before driving to the chapel we took coffee with Rick and Jennifer Reed—Toop reads excerpts from his forthcoming book, Into the Maelstrom: Music, Improvisation and the Dream of Freedom: Before 1970, the first of a planned two-volume set on free improvisation. At one point he discusses AMM’s “abnegation of individual control,” a trait shared with MEV and similar groups. Toop later explains, “It’s about giving up something precious for the sake of the group.” Control is thus shared by the group—and oftentimes with the instrumentaria—and alongside its abnegation comes the renunciation of all accepted standard musical elements. Such abnegation is one of the most salient features not only of AMM’s practice but that of electroacoustic improvisers in general.

If the group’s history does not already weigh heavily enough on tonight’s performance, Toop’s talk ensures that it will not be far removed from the consciousness of Rowe and Prévost.

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234 Cardew, “Towards an Ethic of Improvisation.”
236 David Toop, Facebook message to author, December 3, 2015.
The celebration is to move to London the following weekend, December 5 and 6, with a festival held at Cafe OTO and billed as “Exploration Weekend – Celebrating 50 Years of AMM.” (The title obviously highlights the centrality of the exploratory impulse to AMM’s practice much the way AMPLIFY 2015 illustrated its prevalence among younger electroacoustic improvisers.) The festival, like Huddersfield’s, will include a performance by Prévost’s workshop ensemble, a talk with Philip Clark, and a concluding performance by the trio AMM. Despite the coming opportunity to witness another performance by the classic AMM trifecta, it is unclear whether the three will continue performing together after these concerts, and not only does the weight of history bear on tonight’s performance, but so does the suggestion of rarity and impermanence.

As the concert approaches, the raw, cold dampness of the past few days gives way to a full deluge, and the foyer of St. Paul’s Hall—a former church built in 1829 and converted to a concert hall in 1980—provides a welcome refuge for the arriving, drenched concertgoers. By 7pm the foyer is already quite full, primarily with older men. Near the congested entrance a crowd huddles around a merchandise table displaying a number of AMM CDs and related books, including *Cornelius Cardew (1936–1981): A Reader*, a collection of Cardew’s writings, as well as Tilbury’s biography of Cardew, *Cornelius Cardew (1936–1981): A Life Unfinished* (Tilbury 2008). An air of excitement pervades the hubbub.

At 7:10pm the ushers open the hall doors, and the eager throngs scurry inside to claim the choicest seats. The seats, in red upholstery, are in ten rows of ten each, stadium style. In the center of the stage is Prévost’s instrumentarium, tonight comprising a concert bass drum lying on its side and resting on several blocks of wood, a snare drum, a 26” Paiste concert tam-tam, and

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several small and medium-sized cymbals mounted like bottom hi-hats with wingnuts to parts of hi-hat stands. There are also a number of smaller, unmounted cymbals and bells as well as bows, mallets, sticks, and sundry other implements.

The percussion is flanked to house left by a Steinway D concert grand piano positioned so that Tilbury will face Prévost. To house right a table houses Rowe’s guitar and accoutrements, perpendicular to the front of the stage and accompanied by a chair. On the table are Rowe’s current guitar—a small and lightweight, custom Lapstick travel guitar with twenty frets and two
pickups—a Behringer Xenyx 802 mixing board, a Grundig WR 5401 radio (with FM, shortwave, mediumwave, and longwave bands), a Roberts Sports R 984 radio (with FM, mediumwave, and longwave bands), a contact microphone, an eBow, and several effects pedals: a Boss PS-3 Digital Pitch Shifter/Delay, a Boss RC-3 Loop Station, and two Fender Mini EQs. Also on the table are a variety of implements, including a nail file, several pencils in a metal case, a quill, an American Express credit card, a green scouring pad, some steel wool, two pieces of sandpaper, several small stones, a golf ball, a rubber ball, an alligator clip, a coil, a spring, and a Slinky. Several small gooseneck lamps about the table illuminate the mixing board, effect pedals, and implements. Beneath the table is a Boss FV-50H volume pedal; the mixer’s output connects to the volume pedal’s input, and the pedal’s output connects to a Fender Twin amplifier.

239 This is a functional yet very inexpensive mixer. Whereas some other improvisers, like Cor Fuhler, a lament the sound quality of Behringer mixers and instead prefer more expensive models, Rowe is apparently content to use budget equipment. He explains this preference by referring to a political attitude that describes one’s relation to one’s surroundings. He says:

I’d never buy an expensive radio. I prefer the cheap ones. That goes back to the political thing we were talking about. Having a very expensive guitar when people in other places are very poor I find an obscenity. I don’t like that. I use a cheap wooden imitation of an American model.”
(Warburton, “Interview with Keith Rowe.”)

located several feet upstage of the table.

![Image of Keith Rowe's instrumentarium. Not shown are a Fender Twin amplifier and a Boss FV-50H volume pedal. (Photograph by author.)](image)

A surfeit of recording microphones surround the stage, including a stereo pair in the center of the stage, a wide stereo pair with one microphone at either end of the stage, another stereo pair positioned about seven feet apart from each other in front of the percussion, one microphone in front of the guitar amplifier, and several inside the piano, and a microphone apparently permanently mounted high above the audience. Behind the stage looms, almost like Chekhov’s gun, an imposing pipe organ; this had been a church, after all.

Around 7:34pm the triumvirate takes the stage and is greeted by sustained and enthusiastic applause. Tilbury, as he is wont to do, dons a vest, although tonight’s is particularly
celebratory, festooned with three embroidered champagne glasses and decorative glitter. Prévost and Rowe’s vestsments are more muted: Rowe wears a light grey shirt, a blue jacket, and black pants, while Prévost wears a grey shirt, black pants, and a black jacket. The three acknowledge the multitude’s welcome and assume their respective positions, Prévost behind the snare drum.

Section 1

Although we expect the performance to begin with sound, instead there is silence, and almost immediately we are faced with the problem of defining the bounds of the performance. We are reminded of one of the aphorisms that famously graces *AMM*’s liner notes: “An AMM performance has no beginning or ending. Sounds outside the performance are distinguished from it only by individual sensibility.” For the sake of convenience—and, I suppose, owing to my individual sensibility—we will consider the performance as beginning shortly after the applause ends, by which time the three musicians are at their stations and apparently ready to begin. They begin with what Toop would refer to as a “silence within a silence.” Notably, the hall’s walls shield the interior from the sounds of the wind and rain.
outside. The silence within a silence that begins this performance is interrupted after thirty-seven seconds by a listener’s cough. Nineteen seconds later Rowe, with his left hand, scrapes the steel wool on the strings above the guitar’s neck pickup, creating a noise that swells and then recedes both in amplitude and brightness, noticeably colored by the Fender Twin amplifier and lasting for four seconds. Prévost places his right hand on the snare drum and presses his fingers slowly against its head; any sound he creates is practically imperceptible. Tilbury likewise presses his fingers against the tops of the depressed piano keys. The sound of the friction he generates is, like Prévost’s, all but inaudible. Tilbury varies the amount of pressure he applies, perhaps to encourage notes to sound accidentally. At 1:19, twenty seconds after Rowe’s opening sound, the piano intones a pianissimoso Eb5, followed a moment later by a piano D4 and finally several seconds later by a pianissimo F4 (see Figure 6.4). Prévost accompanies this phrase by brushing with his hand on the snare, now faintly audible.

![Figure 6.4: John Tilbury's initial entrance.](image)

Rowe uses the steel wool to articulate a series of individual low-volume, low-frequency transients, while Prévost now massages the bass drum with his right hand in addition to the snare with his left. Tilbury reenters, floating an unhurried, distant-seeming phrase primarily using single notes and occasionally small clusters of notes (see Figure 6.5). Tilbury holds the sustain pedal down, giving the notes an air of disappearance rather than termination. At the generally extremely low dynamic level that Tilbury uses, the tones’ upper harmonics are significantly attenuated. Their spectra are dominated by the fundamental, lending them an almost sine-like
When Tilbury pauses (at the end of the first system in Figure 6.5), Rowe sweeps and swells another band of noise, recalling his initial gesture, although now he cuts it off at its peak. Prévost’s bass drum caress seems to continue and conclude the gesture. Coughing again smirches the texture; it is as if the blustery weather wants to make a mark on the proceedings despite the building’s shelter from the wind and rain. While Tilbury continues, Prévost picks up a small metal object and places it on the bass drum. Rowe’s colored noise now ebbs and flows, as Prévost continues brushing the bass drum head with his right hand, leaving faint hints of low-range rumbling to tint the silence, interrupted soon by more coughs. Rowe holds the steel wool in his right hand, and as he adjusts a pedal knob with his left hand he slides the steel wool along the length of the strings, eliciting a pitched, descending glissando—shades of Dick Dale. Prévost, in response, punctuates the gesture with a quick and forceful scrape of the bass drum head, after which emerges from the guitar a drone on D3, swelling gradually and peaking two seconds later, then fading out over the next ten seconds. Rowe with his left hand now manipulates the Grundig shortwave radio, although there is no obvious sonic result. At 3:49, there is a low-frequency
rumble—perhaps from Rowe—and a second later, Tilbury sounds a low Bb1 as if in reply. Prévost in turn responds to Tilbury with a softly billowing gong strike. Several seconds later, Rowe, his hands on the strings, draws forth another muted rumble. Prévost now begins bowing the gong very slowly, eliciting a clear and steady pitch corresponding to 1028 Hz that emerges from the rumble’s decay, swelling gradually to piano and then decaying over the next fifteen seconds. As it fades to nothingness, Rowe drags the contact microphone against the table with his right hand, his small gestures producing a disproportionately loud series of noisy plectral transients and scrapes, again colored by the amplifier; the amplifier’s distinctive tonal thumbprint unites Rowe’s soundworld despite the different sources, whether from a guitar pickup or contact microphone. Over this, Prévost again produces the same pitch as his previous bow-stroke, sine-like in its spectral purity and steady amplitude envelope. When Rowe’s scraping ends, at 4:36, Prévost continues, ten seconds later changing bow direction and momentarily producing a second pitch close to the first before settling back on the original pitch. After a few moments an additional frequency an octave above joins the first, and Rowe swells in a hum to create a laminar texture, at which point Tilbury reenters with upper-register clusters. Both Rowe’s and Prévost’s sounds rise and fade periodically, and Tilbury plays in succession Eb6 twice and then Eb7. Serendipitously Prévost’s bowed cymbal matches the pitch-class, producing a clear pitch at Eb5, fading out over eight seconds before swelling again, now more inharmonic and with several close partials, before again settling around 876 Hz (A5) at 5:24.\(^{240}\) It is joined a second later by a low-frequency boom, like a bass drum although apparently not; this is instead presumably from Rowe. Tilbury follows this immediately with a pianissimo note a whole tone lower than the droning bowed gong, at the gong’s previous pitch, G5. As the gong’s A5 fades, Tilbury at 5:33

\(^{240}\) In describing the frequencies of the bowed gong and cymbals, I include the names of the approximate pitches when the pitch seems relevant.
plays a Bb4. A few seconds later Tilbury sounds several low piano clusters, joined at 5:45 by a low rumble from Rowe and at 5:47 the return of the gong’s G5. Prévost increases the bow pressure, introducing more inharmonic partials, and then, removing the bow, allows them to decay slowly. As if to answer this stroke, Tilbury plays a low piano note, F1.

With his right hand, Rowe removes the steel wool and now produces a sustained and relatively loud low-frequency dyad, with fundamentals around 73 Hz (around D#2) and 82 Hz (E2), roughly a semitone apart. The proximity of these frequencies causes a prominent beating around nine times per second. At 6:06 Prévost’s bowed gong begins noisily before several seconds later settling in on a clear pitch around B3, at which point Prévost removes the bow. Tilbury responds a second later with a note a semitone lower, Bb3, as Rowe’s own semitone dyad fades along with the gong and piano.

At 6:19, Tilbury sounds a pianissimoso Ab3, and Prévost replies with a similarly quiet gong strike. Tilbury now plays a note a whole tone above his previous before sounding a prepared piano note twice, first almost inaudibly. This note has two prominent—inharmonically related—frequency components around 226 Hz (slightly flat of Bb3) and 503 Hz (flat of C4). After Tilbury plays this prepared note once more, Rowe briefly fades in a burst of broadband noise and several seconds later—presumably unintentionally—drops a block to the floor, puncturing the surrounding silence. Tilbury now quietly plays a different prepared note at Eb4, muted so as to have practically no upper harmonics but and having a very subtle partial at 401 Hz, approximately a major third above.

Soon Prévost resumes bowing the gong, now with quicker and more forceful individual strokes, generating spectrally rich inharmonic washes with occasional mid-upper register squeaks or strong pitches (especially around 340 Hz) that Rowe and Tilbury occasionally
accompany.

Around 7:00, an audience member in the row ahead begins a coughing fit that he struggles without avail to suppress. Simultaneously, a 2550 Hz tone emerges, its source unclear. Prévost continues to bow the gong, producing variously changing frequencies. When, at 7:18, Tilbury plays Eb and then Ab, the gong hovers around 530 Hz (near C4) to form a major triad. Rowe generates a number of guitar rustles around 7:35 and scrapes around 7:44, perhaps in response to the coughing fit, which—amazingly—continues unabated, the musicians apparently doing their best to accept it, like Cage’s shadow over a modern painting. Prévost now bows quickly back and forth, around eight times per second. From this activity emerges a louder tone with a prominent peak around 1544 Hz in addition to upper harmonics. Several seconds later Tilbury again plays the two prepared notes within a chord, after which he again massages the keytops, sounding a series of quiet kitten-on-the-keys clusters, including, at 8:04, a whole-tone ascending tetrachord, and, at 8:34, a mid-range pentatonic chord. Prévost’s gong wanes, and meanwhile Rowe adjusts several knobs. The effect is not obvious, and his subtle electronic hum continues along with Tilbury’s quiet notes (and, still, the coughing). Finally, another audience member gives the cougher a bottle of water, which seems to stem the phlegm, and the prevailing musical activity diminishes before Prévost, as if to punctuate the section, strikes the gong with a mallet. The gong decays over the next twenty-five seconds.

Section 2

The forty seconds of relative silence that follow are colored at one point by a police siren

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241 This is presumably a prepared note, but the coughing fit partially obscures it.
242 See Chapter Three, note 3. Cage wrote, “A cough or a baby cry will not ruin a good piece of modern music” (Cage, Silence, 160). Tonight there are many more coughs than one, however.
outside and later by two more coughs. Rowe adjusts mixer knobs with his left hand while Tilbury sits motionless, and Prévost picks up a cymbal around 14” in diameter and puts it on the snare drum.

At 9:42, Rowe fades in a low note around 77 Hz (D#2) that grows over the next twenty seconds. Simultaneously, Prévost begins to bow the cymbal, producing more spectral spread and a dynamic variety of resonances rather than one distinct pitch. Tilbury’s right elbow is now on the highest keys the of piano, his forearm covering several octaves of keys, and he sounds a few isolated notes before several clusters in the highest octave. Meanwhile, Prévost’s cymbal settles on a resonant peak around 1074 Hz (near D#6, the same pitch-class as Rowe’s drone). Tilbury plays A#4 and then several A#7s as the droning cymbal continues, and at 10:26 he sounds a left-hand cluster in the middle octave. Prévost now bows more rapidly, in single strokes, and by 10:48 the cymbal alternates between D#6 and a pitch a major third above, around 1604 Hz (approximately G6). Tilbury gradually moves his hands lower on the keyboard, occasionally striking black keys individually on in a cluster.

Rowe adjusts the radio with his left hand, and the drone fades until it is gone completely at 10:53, immediately after which Tilbury matches its pitch-class with a solitary D#4. Prévost’s strokes become slower and longer, and at 11:04 they produce a new distinct pitch around 737 Hz (roughly F#5) before settling around 797 Hz (G5) several seconds later. Tilbury again matches this pitch-class, first with a pianissimo left-hand G2 and then immediately after with a right-hand G5. A new bow-stroke on the cymbal produces a pitch an octave up, at G6, and as this pitch sustains Rowe fades in a swath of mid-frequency noise, presumably from the radio that he now adjusts with his left hand.

Prévost now forcefully bows single strokes and lets each sustain for a second or two
before bowing again, each stroke eliciting a number of inharmonic resonant peaks, with occasionally a predominant peak around 590 Hz (near D5). As these strokes gradually diminish in force, Tilbury plays first a piano E2 and then a number of seemingly random mid-low-register clusters, gradually descending in pitch. Meanwhile with his right hand Prévost bows the cymbal first more quickly, then more slowly, as Rowe manipulates first the guitar and then the radio with his left hand while holding the steel wool above the guitar pickup with his right. He now puts an earpiece—connected to the Grundig radio—in his left ear and adjusts the radio. As a cluster of low piano notes fades into nothingness, Prévost continues periodically and gingerly bowing the cymbal, producing sometimes shimmering multiphonics and other times distinct pitches, including at 12:53 one around 2725 Hz (near F7). Tilbury now sits motionless, his elbows on the keyboard, before lifting his left hand to sound a single note, a pianissimo Bb2. After it fades to silence and as Prévost continues bowing with individual strokes, Rowe places the earpiece—connected to the Grundig radio—above one of the guitar’s pickups and gradually swells in a rumbling band of low-frequency noise, adjusting with his left hand first the Loop Station and next the mixer. With his right hand, he drags the contact microphone along the top of the table, adding a swirling mid-range noise highly colored by the amplifier. Prévost’s cymbal scrapes continue, and Rowe, with his left hand, picks up from the floor the block that he had earlier dropped and now scrapes it along the guitar strings. At 13:42, Tilbury first sounds mid-upper-register clusters, then single notes. Rowe’s low-frequency rumbles continue, as before beating quickly, and now and again Rowe dots the texture with transients from the contact microphone. By 14:10 from the radio we hear hints of music—a rock beat with a lead guitar—in addition to noise, while Rowe scrapes the contact mic on the table with his right hand.

As these sounds continue, Tilbury plays a Bb3 followed by a C2 at 14:20, then more
seemingly random notes singly or in clusters. As in much of the performance, Tilbury is apparently actively cultivating the accidental, at times by placing his forearms on the keyboard and moving them laterally or gradually varying the pressure he exerts on the keys, and at times by depressing keys silently with his fingers and then pushing his weight against the keyboard, notes sounding more or less randomly when a key lifts and then descends again with sufficient force. Prévost is now bowing the cymbal discretely, producing distinct pitched notes. Rowe positions his left hand above the strings, then adjusts the Loop Station and next the mixer, while he continues manipulating the contact microphone to produce sweeps of noise punctuated by a succession of low and mid-frequency pops. The low drone persists, building gradually and then decaying quickly and repeating this pattern every thirty seconds or so, suggesting that perhaps it is a loop from the Loop Station. Now and again the radio’s music emerges like sunlight peeking out from behind passing clouds, yet these glimpses are infrequent and subtle enough to defer clear recognition. The various sounds—the low looping drone, the radio, the contact microphone, the bowed cymbal, the subtle piano notes—form a laminar texture that seems at once static and dynamic, outside of time yet with forward momentum.

Within this texture there are moments when both serendipity and the closely attentive listening of the performers become obvious, as, at 15:36, when from the radio emerges a lead guitar beginning a phrase on a held Ab5. Simultaneously, Prévost’s bowed cymbal produces the same pitch, and immediately after—seemingly in response—Tilbury plays first the identical pitch in his right hand and then a note exactly three octaves lower in his left.

Tilbury, after this moment of apparently clear intentionality, returns to his haphazard clusters. Prévost’s cymbal now latches onto a resonant frequency around 1300 Hz, and with discrete bow strokes he sounds a succession of clearly pitched tones, first every second or so and
gradually more slowly; Tilbury again occasionally matches the cymbal’s pitch-class. Prévost’s strokes get farther and farther apart, and simultaneously Rowe fades out both the radio and the contact microphone. The droning loop ends at 16:34, after Prévost’s final stroke, leaving an interval of silence.

Prévost reenters ten seconds later with a single, forceful bow of the cymbal, itself resting on the drum head, producing a short, isolated, noisy, and metallic honk that decays rapidly, the drum providing a faint trail of reverberation. Seven seconds later, he issues the next of what becomes a series of such sawing blasts, irregularly spaced, while Tilbury and Rowe contribute more subtly, Rowe with gradually more active pops and rustles and periodic radio fragments. Tilbury picks up a mallet and, with his left hand, uses it to rub the piano strings while, with his right, he occasionally and quietly plays notes via the keyboard. At 17:14, a high-pitched sine tone around 5000 Hz suddenly appears, sustaining and then decaying over the following fifteen seconds, its source not obvious but presumably from Rowe’s instrumentarium, perhaps the eBow. Rowe cuts it off with an aggressively loud low-range roar—the loudest gesture of the performance thus far—and Prévost responds a second later with a final clamorous saw on the cymbal, allowing it to resonate for several seconds, out of which the high sine tone reappears more quietly, only to end abruptly ten seconds later and leave another silence within the silence.

Section 3

Now it is Tilbury’s turn to break the silence. After ten seconds, he quietly plays F#2 and then A2, allowing them to sustain. He continues with a glacial left-hand melody for the next twenty seconds, and then, moving his right hand upward on the keyboard, he sounds an ascending pentatonic flourish on the black keys. The depressed damper pedal allows the gesture
to decay gradually into another silence of twenty seconds. During this silence, Prévost replaces
the cymbal and poses like a mirror image of Rodin’s Thinker, his left elbow on his leg and his
left hand in a fist under his chin, for the first time in the performance noticeably resting. Not long
after, Tilbury begins quietly rubbing the low-register piano strings with his left hand, and Prévost
abruptly likewise begins rubbing the outer edge of the bass drum’s head. The vibrating head
causes a small stone he has placed on it to rattle, in turn striking the head again. Prévost uses a
mallet to rub the outer edge of the bass drum head, generating louder and clearly though
somewhat varyingly pitched rumbles while also rattling the stone. At 18:54, for instance, he
produces a clear pitch with a frequency around 72 Hz, later several increasingly loud tones about
91 Hz, and then a series of voluminous tones again around 72 Hz. As he continues, Rowe, at
19:36, having picked up the fan, now holds it above the guitar with his right hand, generating a
motoric buzz concentrated an octave above Prévost’s pitched bass drum. Rowe adjusts pedal
knobs with his left hand and another tone, around 76 Hz, emerges and begins to drone. Prévost
now continues his assault, the play of low frequencies he produces with the bass drum interacting
with Rowe’s new booming drone and becoming even louder until its peak around 19:54, then
advancing and retreating until fading along with the drone a minute later at 20:51.

Prévost now stands, rubbing the bass drum, producing more subtle and higher-frequency
surface sounds rather than low-frequency pitches. Rowe has meanwhile set the fan down to the
right side of the guitar, and he now picks up the contact microphone, eliciting from it an
irregularly spaced series of clicks. Tilbury silently rubs the front of the piano’s case. At 21:26,
Prévost picks up and rings a small bell, cutting off the bass drum’s rumble, and Tilbury answers
immediately with a single note, G♯5. Twelve seconds later he repeats the same pitch, and then
eight seconds later he plays a note a half-step lower. He continues a quiet, self-effacing melody
(see Figure 6.6), to which Rowe occasionally adds subtle clicks with the contact microphone. Prévost looks at Tilbury as the latter continues playing. Rowe adjusts the mixer with his left hand and continues to manipulate the contact microphone with his right, his sparse accompaniment consisting of infrequent, subtle pops, clicks, and rustles. After Tilbury plays this melody, he places first his left hand on the keytops and then both hands, and moving them laterally, his fingers strike the sides of the black keys to create waves of unpitched medium-low frequency whirs. He is in effect treating the keyboard like a large guiro, not unlike Helmut Lachenmann does in *Guero*, although whereas *Guero* uses the white keys and relies on amplification, Tilbury’s gestures are—at least in the hushed context of this performance, and especially in comparison with many of his nearly silent caresses—readily audible. Where elsewhere in the performance the ways in which Tilbury cultivates the accidental in his exploration of instrumental agency is remarkable, here his treatment of the piano as a configuration of modular components is noteworthy. The keys for Tilbury are not only parts of the mechanisms with which to strike the strings but are capable of being used to create sounds in their own right.

Rowe’s contact microphone becomes gradually more active, building the momentum until Prévost enters, at 23:11, bowing the gong with his right hand while damping it with his left to elicit strident shrieks and whistles. Tilbury now plays irregular, occasional individual pitches,
and Prévost’s sawing diminishes until a forceful stroke, at 23:51, ends the preceding texture and is followed by several seconds of silence. A few isolated pianissimo whistles interrupt it. Prévost now saws back and forth, producing a regular series of squeaks as his rubbing gets faster, around 24:36, while simultaneously receding. His oscillating bowing transforms into discrete longer bows, inharmonic and hushed, while remaining in the foreground. Tilbury sits motionless.

Section 4
A minute later, Rowe, his left hand on a pedal, almost imperceptibly swells in a slow loop of two alternating chords, each with a gradual, smooth attack, almost no upper frequencies, and emphasizing a G major tonality (see Figure 6.7). Meanwhile occasional bits of muffled speech and then song appear from one of Rowe’s radios. Prévost stops, and Rowe’s loop assumes the foreground, accompanied by gradually increasing noise as Rowe manipulates a pedal knob with his left hand.

![Figure 6.7](image)

*Figure 6.7: Rowe’s loop beginning at 25:35: the most prominent pitches are shown, although the actual pitches are slightly sharp of standard tuning.*

After several seconds Prévost recommences his bowing, now eliciting distinct pitches near 1193 Hz (sharp of D6), and Tilbury, caressing the keytops, sounds infrequent pitches, including at 25:59 an Eb3 that rubs against Rowe’s loop and, makes it clear that the loop is not in standard tuning. Soon after, Prévost again bows quickly back and forth, generating more clear
pitches centered around 1204 Hz, sometimes plaintively falling. Rowe puts his hands on his knees as the radio continues. After a brief while, with his right hand he picks up a long thin object, perhaps a pencil, and pressing it to the contact microphone generates a series of clicks. Rowe again adjusts the mixer with his left hand mixer and then pedal knobs. The radio voice reappears as Prévost and Tilbury continue. With his left hand Prévost picks up a drum stick, and he presently begins scraping the gong with it using both hands. Around 27:25, the radio gets louder while Tilbury becomes slightly more active, at 27:42 sounding a clear and relatively loud dyad. Rowe meanwhile adjusts a pedal, then returns to the contact microphone briefly before putting both of his hands down. Prévost strikes the gong with a mallet at 27:49 before continuing his scraping. Rowe adjust the mixer with his left hand, and both the radio and the chordal loop continue. This texture continues for the next while, and after a minute a singing voice appears from the radio. A gong-like low-range rumble from Rowe at 29:10 augurs a textural change, although the transition is extremely gradual. Tilbury mostly silently caresses upper register keys; sometimes the hammers strike the strings. Rowe, after adjusting the mixer and a pedal, slowly fades out the radio’s music and then the chordal loop. The radio’s muffled voice returns as Rowe adjusts the mixer, and meanwhile Prévost damps the gong with his left hand while bowing it with his right. Tilbury becomes more active, playing single notes and occasional dyads, while Prévost stops bowing.

**Section 5**

Following several seconds of silence, beginning at 30:51 Tilbury plays an extended solo passage (see Figure 6.8).
There are several noteworthy things about this passage. First is the near-complete exclusion of multiple pitches attacking simultaneously. Even when there are chords, for instance at 31:46.5 and 32:29.9, the component notes are struck individually. The two exceptions in the transcription occur at 31:35.3, when Tilbury repeats the preceding dyad but now plays the notes simultaneously, and at 32:33.6, when the simultaneous duplication of the Eb pitch class in a wide registral spread suggests a locally significant point. The emphasis of Eb in fact grounds the entire passage, Tilbury having played it immediately before the Prévost and Rowe fadeout. Rowe now adjusts pedal knobs with his right hand, while Tilbury continues. Prévost begins thumping the gong by quickly removing his hand from it, an inversion of the typical striking gesture; perhaps unsurprisingly, the resulting sounds are disproportionately quiet relative to the size and quickness of the gestures. Rowe adjusts a pedal with his left hand, and radio fragments appear, beginning.

Figure 6.8: Tilbury’s solo beginning at 30:51.
with an excerpt of a nasal vocal melody with heavy vibrato, two notes descending by a tritone, at
32:42. Tilbury continues with variations of his last phrase while Rowe again operates a pedal
with his left hand pedal and the contact microphone with his right, eliciting occasional low-fi
pops and clicks. Prévost meanwhile reenters with barely audible bowed gong strokes. Rowe
adjusts a pedal with his right hand pedal and the mixer with his left.

Prévost bows more quickly now, as Rowe slides the contact microphone to his left along
the table. Prévost’s rapid bowing produces a succession of sustained, quickly pulsating, high
pitches. Tilbury places his elbows and forearms on the keyboard, periodically sounding
individual notes or dyads, as Prévost’s pitches swell and fade. A prolonged, rapidly bowed note,
beginning from nothing at 34:50, slowly crescendos, getting gradually louder and noisier until it
peaks loudly and dramatically thirty seconds later, by which point a metallic rattling has joined
it. Tilbury responds with low clusters and Rowe with left hand guitar rumbles. Tilbury slides his
elbows along the keyboard, striking a black-key pentatonic arpeggio at 35:35, after which he
diminishes in volume and returns to sounding occasional, erratically placed clusters. Prévost
likewise simultaneous fades before again bowing and scraping the gong, now in longer
individual strokes. Rowe adjusts a knob and returns his left hand to the guitar strings and then the
mixer. Tilbury now picks up a mallet with his left hand and uses it to massage the piano’s low
strings. Rowe adds a prominent low drone, centered at 74 Hz (beginning around 36:30), and
Prévost contributes occasional sine-like high pitches from the bowed gong. Rowe, his left hand
on a pedal and his right on the mixer, swells the drone at 36:45. It peaks twenty seconds later and
fades out over the next fifteen seconds, during which Tilbury simultaneously strikes a bass string
and the piano’s frame with a mallet, the frame’s metallic, percussive transient echoing through
the undamped strings.
Section 6

At 37:25, Rowe picks up the fan with his left hand, holds it above the pickups for several seconds to create a whirring drone, and then places it back on the table. There is relative quietude, marked only by Tilbury occasionally striking the piano frame. Prévost ceases his bowing, puts the bow down, and stretches his arms. He now turns the snares on. After Tilbury plays an upper-register major second dyad, Rowe, controlling the mixer with his left hand and the contact microphone with his right, issues a percussive flurry around 38:10. After twelve seconds, this activity gives way to several moments of silence, during which Prévost places a small cymbal on the snare drum. Breaking this silence at 38:30, he begins to bow it slowly.

Tilbury, meanwhile, has placed his hands on the keyboard’s registral extremes, his palms on the keys, and he uses his upper body to push his hands against the keyboard, varying the pressure. Piano notes in the extreme octaves sound occasionally and seemingly randomly. Prévost puts down the bow and now uses a mallet to scrape the snare drum, causing the snares to buzz loudly. He now picks up a heavier, smaller bowl, holds it against the snare drum head with his left hand, and bows it with his right. Tilbury continues caressing the piano keys, and Prévost’s cymbal now generates a pitch over next minute, centered around 1509 Hz, intermittently varying in amplitude and sometimes causing the snares to buzz loudly.

Rowe now picks up the eBow with his right hand and places it on the strings over the neck of the guitar. He gradually turns up a mixer control with his left hand before adjusting a pedal knob, fading in a steady tone at 1190 Hz (D6) from the eBowed guitar at 41:30. Gradually an additional frequency at the octave below, 595 Hz, emerges. Prévost’s cymbal’s pitch wavers here, and for a time his and Rowe’s are the only prominent sounds, similarly sustaining and
occupying the same frequency range. After forty seconds of Rowe’s drone, an additional frequency appears, around 501 Hz (B5), a minor third below the sustaining D5, likely the work of the pitch-shifter. Prévost’s pitch changes, too, although less steadily. Rowe now rests his hands on his knees for a few seconds before picking up the contact microphone. While reaching to adjust a pedal, he—apparently inadvertently—knocks over the eBow, leaving the excited open D and G strings to decay into silence. Instead of replacing the eBow, however, Rowe ignores it, letting it remain lying on its side on the table. This recalls a point that Toop had made in his talk earlier: whereas jazz musicians had tended to incorporate mistakes into their practice by retroactively making them seem intentional (Lennie Tristano, for instance, “correcting” mistaken chord changes by his colleagues by integrating them into his playing), AMM was content to accept mistakes as they were without attempting to make them appear intentional. This is another illustration of AMM’s embrace of non-intentionality.

After Rowe’s guitar fades out, at 41:55, Prévost begins bowing the bowl more rapidly. It still rests on the snare drum, and the snares remain on. We first hear a sine-like tone, with a prominent resonance at 556 Hz (near C#5), then increasingly loud sympathetic vibrations from the snare head and snares, and finally a new tone at 1510 Hz (roughly F#6), loudly rattling the snares. Rowe adds to the mounting momentum by scraping the guitar strings while adjusting a pedal with his left hand to produce pops and clicks as well as pitched glissandi. Tilbury, whose hands have been gently massaging the top of the piano’s fallboard, now begins striking his palms on the underside of the piano, creating articulate thuds that resonate the undamped piano strings. Rowe continues using small physical gestures, but they result in disproportionately loud sounds. He adjusts a pedal with his right hand while he slides his left hand over the strings. He now reverses his hands, adjusting a pedal with his left and sliding his right over the strings. After a
brief let-up, an overtly active dialogue ensues, Rowe executing his gestures more quickly now, Prévost bowing forcefully every second or two to loudly sustain a high-pitched tone around 2750 Hz, and Tilbury continuing to strike the underside of the piano. After Prévost’s bowl returns to the lower pitch around 556 Hz, aggressively exciting the snares, Rowe cuts him off with a loudly scraping ascending arpeggio, and Prévost punctuates the volley with a final forceful stroke, eliciting from the bowl the higher partial around 2750 Hz. The gesture leads to an abrupt silence beginning at 44:02.

Tilbury now grabs the fallboard and balances it with his fingertips. After a few seconds, at 44:16, the fallboard escapes his grasp and falls, loudly striking the piano’s key slip, and he immediately lifts it up again, slamming it against the case to produce an even louder percussive attack which reverberates through the undamped piano strings. His body language is one of surprise, as if the whole sequence were an unintended and unanticipated accident. However, it seems simultaneously planned and fortuitous, as if he deliberately set up a situation in which the accidental could—and likely would—occur; the fallboard would probably live up to its name and fall at some point, but the exact point at which it would do so and in which manner were beyond Tilbury’s deliberate control. The decay continues reverberating through the piano strings for twenty seconds, after which Prévost begins bowing a cymbal with his right hand as he holds it against the bass drum’s head with his left, creating a series of discrete, harmonically rich pitched notes, each spaced a second or two apart from the next, including at 45:15 four in a row with a prominent frequency of 110 Hz. Rowe sometimes interjects, eliciting a particularly loud roar at 45:27, followed by thuds that volley with Prévost’s honking cymbal strokes. Rowe picks up what looks to be the nail file with his right hand, first using it on the contact microphone and then the guitar, damping the strings with his left hand before wedging it between the guitar strings. Now
he picks up the fan and places it on the contact microphone before moving it to the left of the guitar, after which (at 46:22) a harmonically rich low note with a fundamental frequency of 74 Hz (D2) sounds loudly and then decays over the next thirty seconds. At the end of this note, Tilbury returns with *pianissimo* clusters and compact chords, beginning at the bass end of the piano and gradually getting higher, suggesting an upward trajectory. He plays alone for the next minute, the only point in the performance at which Tilbury uses his characteristically complex Feldmanesque chords, although rather than repeating one chord several times as he often does, he plays each chord only once before playing a different, higher chord. Meanwhile, Prévost sits down and puts the cymbal on the table, and Rowe replaces the eBow on the guitar and adjusts a pedal knob.

**Section 7**

After another bout of coughs, at 48:17 Prévost with his right hand begins bowing a smaller cymbal, around 10” in diameter, which he holds against a metal bowl that in turn rests
upside down on the snare drum head. The sounds he produces with this configuration depend not only upon the interaction of the bow and the cymbal, but also that between the cymbal and the bowl, and the bowl and the snare drum (see Figure 6.9; although the diagram depicts the relationships as being one-way, each junction is a coupling in which both components affect one another). At points Prévost removes the cymbal from the bowl and instead places it directly on the snare drum head. Prévost elicits variously pitched tones, including many with a prominent fundamental frequency around 1280 Hz (approximately Eb6). Shortly after Prévost begins, there is a faint, low-frequency rumble, the source of which is not obvious. As if in response to both this and Prévost’s bowed cymbal (around Eb6), at 48:30 Tilbury plays the very lowest Eb on the piano, Eb1; Prévost continues bowing, gradually fading out, and Tilbury plays single notes,

![Diagram](image.png)

*Figure 6.9: Prévost’s instrumental configuration around the forty-eighth minute. At points Prévost rests the cymbal on the bowl and at other times directly on the snare drum head.*
slowly ascending in pitch. After a brief respite, Tilbury plays a mid-range major second dyad, and Prévost now bows with *spiccato* strokes, eliciting less stable, more inharmonic tones. Rowe slides a small board along the guitar strings, producing complex low-range *glissandi*.

Tilbury rests his palms on the keyboard, sounding random notes. Rowe now holds the contact microphone, sliding it with both hands, as Prévost continues bowing, for a while inducing a stable high frequency tone at 1880 Hz. Rowe picks up a quill with his right hand and slowly moves it to the left along the surface of the table, its friction picked up by the contact microphone. In a performance in which there is often little clear connection between Rowe’s physical gestures and his sounds, the sight of a prodigious bird feather in his hand comes as quite a surprise. After finishing this gesture, he puts the quill down and picks up the fan, placing it above the pickups. The fan hums with a prominent frequency around 360 Hz but drifts slowly, and it combines with Prévost’s bowed cymbal—now producing a high-frequency tone around 2634 Hz—to form another laminar texture. Tilbury soon joins in with a three-note, extremely quiet melody, A3, C#5, and Eb4. Prévost and Rowe continue for several minutes, and Tilbury occasionally makes subtle contributions, including the prepared Eb4 paired with G4 at 51:46, and the other prepared note at 52:04 and again a minute later. Prévost bows more slowly, and Rowe slowly fades in the radio with his left hand around 54:00. Prévost subtly adjusts the placement of the cymbal against the snare, and Rowe manipulates the mixer and then the radio with his left hand.

By the fifty-five-minute mark, the radio is playing Haircut One Hundred’s 1982 new wave hit “Love Plus One” while the fan’s hum, Prévost’s bowed cymbal, and Tilbury’s very occasional notes continue. Prévost is now bent over, his face almost touching the cymbal. His countenance shows deep concentration as he listens literally closely for the most minute
variations. Rowe’s left hand is on the guitar strings as he adjusts a pedal knob with his right hand, producing infrequent, subtle rustles. The laminar texture continues for several more minutes, occasionally smirched by more coughs from the audience. Prévost’s cymbal settles on a sine-like tone around 1604 Hz, which he sustains for an extended length time with discrete bows. Eventually Prévost looks at Rowe, perhaps quizzical or annoyed that Rowe has left the radio on interrupted for such an extended period of time, long enough for the song to have changed, now replaced by a mid-tempo rock number with female vocals. Occasionally the lyrics are just audible: “I believed,” “can you tell me,” “everywhere,” yet the song’s precise identification remains elusive.²⁴³

Rowe rests his hands on his knees for a moment before placing his left hand on the guitar strings. Prévost now looks at Tilbury. There is another cough. Rowe’s left hand manipulates the guitar strings and then the mixer. There are more coughs. Finally around 59:30 Rowe fades out the radio, having allowed it to play uninterrupted for nearly five minutes. Simultaneously Prévost’s bowed cymbal likewise wanes, and he presently puts down both bow and cymbal. The fan’s droning hum slowly recedes as Rowe manipulates the mixer with his left hand. Tilbury continues playing notes seldom.

Section 8

Prévost places a bowl on the snare drum and begins to bow it with his right hand, at 1:00:05, soon producing a smooth sine-like tone with a prominent frequency at 1511 Hz. Rowe sits silently and idly for several seconds before adjusting the mixer with his left hand but with no

²⁴³In a blog comment, writer Richard Pinnell identifies one song from Rowe’s radio as Andrew Lloyd Webber’s “Love Changes Everything,” as sung by Michael Ball. That is certainly not the present song, and I did not hear it elsewhere. (See http://olewnick.blogspot.com/2015/12/some-thoughts-on-this-past-weekend-at.html.)
clear sonic effect. Prévost, meanwhile, continues bowing the bowl. Outside a truck engine whirs. Tilbury’s palms are on the keys, and he slowly moves his body to and fro, a while later again sparsely sounding single notes and dyads. At 1:01:36, Prévost begins bowing in discrete single strokes, eliciting a new clear pitch around 563 Hz.

Rowe—having sat silently for the last several minutes while the duo of Prévost and Tilbury have continued—calls to mind his absence in the recent history of AMM. One wonders if he is portraying the history of the group in this performance. There is nothing quite apparently referencing AMM III’s more conventional guitar technique or other overt references as there are in *It Had Been an Ordinary Enough Day in Pueblo, Colorado*, but one wonders if he had made a “program” for himself as he had done previously, his use of pencils and a quill a possible reference to his art school history, for instance.

Prévost manually varies the generally very low volume of his bowl by changing the amount of pressure of the bowl against the snare drum. He finally stops bowing at 1:03:05. Tilbury continues pressing his weight against the keys silently, eventually sounding two last notes, at 1:03:22: the first is the prepared note that produces pitches around Eb4 and G4, and it is followed a second and a half later by a pianissimoso A3.

There is once again protracted silence. In many other circumstances, with many other groups, such a silence would feel overly ritualistic and precious. Here, although it seems possible the performance is over, the group’s history of employing long silences suggests this could just be another silence within the silence. Thirty seconds later, a few coughs temporarily interrupt the silence. Tilbury continues holding his fingers to the keys, though he is now still. Rowe briefly

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244 For his solo performance in Tokyo on September 20, 2008, at AMPLIFY 2008: light, later released on his eponymous album (ErstLive EL007), Rowe created a set of “cultural templates” to guide his performance. See his description written for the Erstwords blog, http://erstwords.blogspot.com/2009/01/el007.html.
picks up the feather with his right hand before putting it down again. He rubs his nose. Now with his left hand he adjusts the radio and next the mixer, but the silence persists. Prévost looks first at Rowe and then at Tilbury. Eventually Rowe sits up, and Tilbury removes his hands from the keyboard.

Finally, at 1:05:38—over two minutes after Tilbury’s last note—the audience begins to applaud. The subsequent acclamation lasts for two full minutes, after which Rowe seems to want to remain in the shadows: as Tilbury and Prévost walk to the center of the stage, Rowe instead walks toward the back of the stage, remaining there until Prévost gestures for him to come forward. When Rowe does so, the three—Tilbury to house left, Prévost in the center, and Rowe to the right—put their arms around one another and bow together. After coming out for a second bow, Rowe literally remains in the shadows on stage right and behind the others.

Afterward, a mass congregates around Rowe’s instrumentarium (and to a lesser extent Prévost’s), many people taking photographs. The amount of interest seems to be directly related to the instrumentarium’s obscurity: many of the components had not been easily discernible from the audience’s perspective, and the relationship between Rowe’s physical gestures and the sounds he produces is often mysterious.245

One of the noteworthy things about Rowe’s performance is that for much of it he does not use the guitar at all, often instead using the contact microphone. While in some sense the

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245 Curious onlookers frequently surround Rowe’s table after a performance, including several of Rowe’s shows in New York over the preceding several years. When asked about this in a 2009 interview, Rowe said, “I suppose there would be a little bit of use in looking at the actual painting palette of Whistler. Maybe you’d learn something from that” (Eyles, “One Bird Flying Through”). However, whereas the interviewer noted that the interested parties were young guitarists—one wonders how the latter attribute was made clear—many of the curious concertgoers after this performance were not particularly young, and the sense I got was not that these were guitarists interested in copying Rowe’s palette, but listeners curious to see what had a role in the sounds they heard. The interest would likely not be so great if it were completely clear from the audience’s perspective what Rowe was using.
Grundig radio becomes a part of the guitar when he places the radio’s earpiece above the guitar’s pickups—the radio then using the same amplification circuit as the guitar strings—on the other hand, neither the contact microphone nor the Roberts radio are similarly transduced via the guitar pickups; instead they connect directly to the mixer. Whereas in many of Rowe’s previous performances, the pickup-amplifier chain unites the various sound sources, in this performance it is the mixer-volume pedal-amplifier chain that does so.

The extensive use of the contact microphone as well as the radios relates to the guitar in another way, however. In 2001, Rowe explained how the physical positioning of the components of his instrumentarium connected with conventional guitar technique:

To this day, the left hand is the melody hand on the guitar. I’d only operate the radio with that hand, or I would always have it on that side, at least. I set up the table with the melodic things, pitch changers and the like, on the left, and the volume and duration equipment on the right. There’s a purity of position. Although it may seem very freewheeling, it’s not at all. I’m hemmed in by an enormous amount of constraints.²⁴⁶

In this performance, the radios are indeed on the left side of the table. So, too, is the mixer, however, which is apparently used to control both volume and equalization.²⁴⁷ The Loop Station—obviously to a large extent affecting duration—is located to the right of the Pitch Shifter/Delay pedal, which affects both pitch and durational aspects but is presumably used more often for pitch-shifting. The physical positioning also clearly relates to the order of the effect chain, however, the Loop Station’s output connected to the Pitch Shifter’s input, for example. Most of the implements which Rowe uses are positioned on the right side of the table, and he typically operates the contact microphone with his right hand, both of which in some sense illustrate Rowe’s generalized conception of conventional guitar technique. Although Rowe frequently operates the Grundig radio with his left hand, changing the radio frequency, he does

²⁴⁶ Warburton, “Interview with Keith Rowe.”
²⁴⁷ Rowe of course is also now using his foot to operate a master volume pedal.
not obviously control the frequency of the Roberts radio; perhaps he had chosen a frequency prior to the performance (or left it to chance) and in performance controlled the radio’s volume via the mixing board.

Rowe’s contributions are in general quite minimal—one might even be tempted to say reductionist—apparently extending his recent approach, developed to a significant extent apart from AMM. In a 2011 interview, Rowe said he had felt he could not play in AMM in the way

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**Figure 6.10: Rowe’s instrumentarium. Not shown are the many possible connections between the various implements to the right and other components. Most frequently they form connections with the guitar strings, pickups, and contact microphones.**

Rowe’s contributions are in general quite minimal—one might even be tempted to say reductionist—apparently extending his recent approach, developed to a significant extent apart from AMM. In a 2011 interview, Rowe said he had felt he could not play in AMM in the way
that he could with Toshimaru Nakamura, for instance. On the contrary, tonight it seems as though Rowe indeed plays with AMM similarly to how he does with Nakamura. To examine the differences between Rowe’s playing in these two contexts, it is worth contrasting two albums recorded within a month of each other in 2001, AMM’s Fine, and Rowe and Nakamura’s first duo foray, Weather Sky. Multiple pitched layers drone throughout nearly the entirety of Weather Sky’s three tracks, creating clearly stratified laminar textures; as in AMM’s early albums, it is often difficult to separate the contributions of the musicians, despite that in this case there are only two performers. Mid-range transients and infrequent, short bursts of noise or radio fragments sometimes dot the texture, but moments of clearly recognizable guitar are especially rare: in “Weather Sky #1” there are hints of strings being stretched and rubbed, and in “Weather Sky #3” Rowe occasionally scrapes the strings (which are then affected by amplitude modulation), but there are practically no clear plectral envelopes or other overt indications of “guitarness.” But perhaps more significant is the nature of interplay between Rowe and Nakamura; they seem to be more concerned with accretion and variation rather than with dialogical interaction. In Fine, Rowe at points elicits similar sounds as in Weather Sky; compare, for instance, the periodic series of creaks in “Part One” with those in “Weather Sky 1.” Rowe likewise engenders lengthy, prominent drones in “Part Four,” “Part Five,” and “Part Seven.” However, in Fine there are more overtly guitaristic elements, including towards the end of “Part One” and in particular the conclusion of “Part Five,” where Rowe plays a sequence of inharmonic notes by plucking the prepared guitar strings. Overall, the interactivity is much more gestural and dialogical than in Weather Sky, and the much greater range of textures and dynamics

248 Abbey, “malfatti/rowe interview.”
in *Fine* creates at times sweeping dramatic arcs, reaching an intense apogee three and a half minutes from the album’s end before fading precipitously into silence. Also noteworthy about Rowe’s playing in *Fine* is the breadth of sounds he creates.

In contrast, in the present performance Rowe limits himself to a few main types of sounds, focusing on the contact microphone, steel wool and string scraping, eBow, radios, and fan, often concentrating on one or two for a while. This more reductionist approach also informs the overall form, as the shape of the performance is more linear than arched, eschewing such dramatic peaks as characterize *Fine* (not to mention many other AMM performances). Thus while the performance bears the unmistakable stamp of AMM, it distinctly differs from AMM performances before Rowe’s departure.

As if reflecting and responding to Rowe’s more reductionist approach, Prévost tends to limit himself to one primary instrumental configuration for an extended length of time, patiently exploring small areas within much larger fields of potentiality. For example, for nearly twelve minutes he bows one small cymbal touching a bowl that in turn rests on the snare drum. Contrast this with, for example, the AMM album *Newfoundland*, particularly around the twelve-minute mark, where Prévost—playing drumset—rapidly shifts between the bass drum, snare drum, cymbals, and hi-hats, at points even playing them simultaneously, much more like a conventional drumset player would. In contrast, in the present performance such instrumental shifts generally occur only every several minutes. A side effect of this is that Prévost is much less overtly physical, moving quite slowly and using small gestures. Significantly, given the infrequency with which Prévost varies the focus of his attention, oftentimes these changes in instrumental configuration help to delineate formal sections (see Figure 6.11).

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251 Matchless MRCD23, 1992; the recording is of a 1982 performance.
Additionally, it is worth considering what Prévost’s techniques do to our conceptions of percussion instruments—such as the Paiste 26” symphonic tam-tam, cymbals, and bass drum—as being “unpitched.” In this performance, in nearly all his engagements with these instruments he uses them—contrary to this classification—to evoke distinct, stable pitches. For example, by bowing the tam-tam and cymbals he produces clear pitches, oftentimes for extended stretches. The importance of such pitched tones becomes especially obvious when Tilbury responds to them by playing similar pitches or pitch classes on the piano. Prévost furthermore uses the stick-slip friction generated by a mallet pressed against the bass drum’s head to elicit unmistakably pitched tones. By so doing, Prévost fulfills his mission to make his instrumentarium “something other than it seems,”\textsuperscript{252} in this case making pitched instruments out of unpitched instruments.

While Prévost is less overtly physical than he often is, Tilbury is on the other hand more conspicuously physical than he usually is, even—or perhaps especially—when his physical gestures do not have a significant audible effect. During much of the performance he uses large gestures, spreading his arms wide and massaging the body of the piano, or placing both forearms on the keyboard. This alteration of physicality upsets Rowe’s characterization of the group’s

\textsuperscript{252}Prévost, \textit{Minute Particulars}, 163.
physicality, with Prévost being the most physical, Rowe the least, and Tilbury in the middle. In this performance Tilbury seems to be more physical than Prévost.

Tilbury embodies both the contingency and direct simplicity of Rowe and Prévost’s approaches. Almost completely absent from this performance are the kind of lush, complex, Feldmanesque chords that he often uses with AMM. (The lone exception is in minute forty-seven, where, as previously mentioned, Tilbury plays a series of complex chordal harmonies; rather than repeating them as he frequently does in other performances, however, he plays each only once.) Instead, Tilbury’s contributions seem to be of four main types: 1) apparently intentional single notes (and rarely dyads and other small chords); 2) single notes or clusters resulting contingently from pressing his fingers and arms against the keyboard; 3) sounds from rubbing or striking strings directly with his fingers or with a mallet; and 4) sounds from caressing or manipulating the piano’s case, keys, fallboard. These all foreground contingency and instrumental agency, and perhaps the most shocking things about the performance are the degree to which Tilbury embraces contingency and the ways in which he does so. He does so first in his more typical way by playing, à la Feldman, extremely quietly; the sounding dynamics differ, generally from niente to piano, as presumably he depresses many of the keys slowly enough that they do not sound at all. But he leverages contingency in more overt ways, too, when—his fingers on the keys—he pushes his body weight against the piano, varying the pressure so that the notes that actually sound do so largely without his conscious control. Instead they rely on the lightening of pressure sufficient to allow the hammer to assume striking position and then on the

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253 Rowe says: “One of the many counterpoints in the AMM is the difference in physicality; clearly Eddie is the most physical, John is in between, and I’m the least physical. There’s a level of gearing. As you know, with amplified instruments it’s very different. I can make a shatteringly loud sound by a move which is much less than a millimetre. That type of gearing produces a very different type of physicality.” (Warburton, “Interview with Keith Rowe.”)

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applying of pressure sufficient to cause the hammer to strike the strings. Contingency is also at work when Tilbury rubs the body of the piano, the brushes and squeaks that sound dependent to a large extent on the friction of the piano’s finish rather than his exacting control. Tilbury also embraces the accidental when, as discussed, he allows the fallboard to drop, the exact point at which it does so—paradoxically—deliberately beyond his control. Interestingly, whereas in some performances Tilbury prepares many of the piano’s strings, thus contributing to the instrument’s contingency, in this performance there seem to be only two prepared unisons, the one producing prominent frequencies around 226 Hz (just flat of Bb3) and 503 Hz (flat of C4), and the other that when played softly sounds an Eb4 with no obvious upper harmonics except a subtle partial approximately a major third about the fundamental and when played more loudly sounds normally. Despite the paucity of preparations, instrumental agency reveals itself in another way; one is reminded of Tilbury’s statement that “Being a pianist is a truly experimental profession because you can’t take your instrument with you.”

This particular piano has unusually long sustain, especially obvious in the middle register. Apparently as a consequence Tilbury often allows individual notes to decay almost fully before sounding new notes, and because of this piano’s lengthy sustain this places substantial space between successive notes.

In their engagements with their instruments, Prévost, Rowe, and Tilbury all clearly illustrate the significance of dynamic instrumental configurations while foregrounding instrumental agency. Both particular instrumental configurations and ways in which the performers leverage the agency of their instruments serve to help define larger and smaller formal sections; note in particular how Prévost’s instrumental configurations often outline sections, how Rowe’s chordal loop grounds a section beginning at 25:35, or how Tilbury’s more

\[254\text{Hopkins, Amplified Gesture.}\]
conventional playing defines a section beginning at 30:51. The significance of musical dialogue likewise reveals itself in several ways. Most generally, as noted, Prévost and, to a less obvious extent, Tilbury respond to Rowe’s “late period” reductive tendencies by focusing on and exploring a few selected instrumental configurations or techniques for extended periods of time, operating at low dynamic levels, and eschewing broad dramatic arcs. In addition to points characterized by the group's hallmark laminar textures, several sections are marked by similar rates of activity among the trio. Especially notable are the numerous instances where Tilbury matches—or otherwise obviously relates to—the pitches played by Prévost or Rowe, portraying an ongoing dialectic between intentionality and non-intentionality.
Chapter Seven
Conclusion

Having examined how electroacoustic improvisers both describe the significant aspects of their practices and reveal these characteristics within performance, we see how common Western concepts—which treat musical instruments as fixed, static objects to be acted upon by human subjects—fail to adequately account for these practices, which often seek to foreground the agency of the instruments and to highlight their mutable, modular nature.

Chapter Four observed the ways in which Sachiko M’s instrumentarium both reflects classical definitions of instrumentality and departs significantly from them. The sine tones her instrumentarium emits can oftentimes be ascribed to a single source, yet this ascription is problematized both when another performer—in this case, Otomo Yoshihide—also employs sine tones, and when one considers the sense in which her instrumentarium comprises multiple sources, a sampler and two test-tone oscillators. More significantly, however, her instrumentarium asserts its agency in its constraints of waveform, amplitude envelope, and frequency, constraints that Sachiko foregrounds. Otomo highlights the agency of his instrumentarium perhaps most obviously in the analyzed performance with the prominent recurrence of rhythms betraying the turntable's speed of forty-five revolutions per minute. Moreover, he clearly illustrates instrumental modularity, treating parts of his instrumentarium as components that participate in dynamic networks, using a contact microphone and guitar pick as a type of turntable cartridge, to cite just one example of many.

In Chapter Five, we saw how Maria Chavez uses an instrumentarium not dissimilar from Otomo’s and extends it in various ways, employing records—both intact and variously
damaged—to a greater extent, their material properties in turn significantly affecting the performance. Olivia Block meanwhile treats the piano as both a modular instrumentarium in and of itself and radically expands its components to form a dynamic network comprising—in addition to the piano’s normal parts—preparations, mallets, a milk frother, guitar strings, an eBow, walkie-talkies, a microcassette recorder, a microphone, an equalization pedal, and a speaker, among many others.

Finally, in Chapter Six we observed how Eddie Prévost, Keith Rowe, and John Tilbury each in their own distinctive ways highlight both instrumental modularity and agency. Prévost constructs specific instrumental configurations that he uses for extended stretches and elicits from them sounds over which he has only limited control, the various pitches arising from his bowed cymbals, for instance, necessarily and crucially a result of the precise and dynamic material configuration. In the process, he treats instruments typically considered to be unpitched percussion instruments as, instead, pitched percussion instruments, thereby problematizing common classificatory schemes. Rowe also underlines the mutability of his instrumentarium, as preparations and implements belong to dynamic networks including guitar strings, pickups and microphones, effects pedals, a mixing board, an amplifier, and so forth. He likewise accentuates the agency of his instrumentarium most clearly by allowing his radio to play without intervention for minutes on end. And Tilbury, while like Block performing with a piano, instead focuses on the components and characteristics of the piano itself, limiting his preparations and other implements and instead highlighting individual parts of the piano by, for instance, rubbing his hands against the top of the piano's case or gliding his fingers over the keytops. He also emphasizes the piano’s agency by, among other things, depressing the piano's keys extremely slowly so that the exact notes that sound and the precise dynamic levels at which they do so are
to a large extent properties of the instrument itself.

While composer Helmut Lachenmann declared, “Composing is: building an instrument” (“Komponieren heißt: ein Instrument bauen”), the improvisers presented in this study intimate the corollary: “Improvisation is: building an instrument.” Prévost’s heurism, Cardew’s search for sound conducted within the medium of sound, Otomo’s “Listen[ing] to the non-existent things that may exist in the future,” Chavez’s use of her instrumentarium to create unstable situations—all of these practices are predicated on the building and re-building of instruments; to paraphrase Prévost, electroacoustic improvisers make their materials something other than what they seem. Whereas in composition the instrument is designed and built prior to the performance and is presented as finished in performance, in electroacoustic improvisation the instrument is often only provisionally designed and is built within the very act of performance itself, therefore more directly demonstrating the instrument's dynamic nature. Like music itself, the instrument is necessarily in flux, always in the process of becoming rather than in the state of being.

While electroacoustic improvisation may strike the observer as something of a limit case, departing as it does from most aspects of conventional music-making, it serves to illustrate characteristics of instrumentality that are too often discounted, ignored, or taken for granted. The conclusions drawn from this study—apart from illuminating the significant practices of electroacoustic improvisation—suggest that organology give these aspects of agency and modularity greater attention that they have generally received.

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256 Otomo, “What are you doing with your music?”
257 Accompanying this dissertation are three recordings demonstrating my approach to electroacoustic improvisation. An additional document serves as extensive “composition notes” to these recordings, exploring relationships between composition, improvisation, and instrument design, and describing the analog modular synthesizer and the digital software modules that I have built and use in these recordings. See Stephen (Red) Wierenga, “Dissertation Composition Notes,” unpublished manuscript, February 29, 2016.
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