UTTERANCES: APPROACHING A NEW ACOUSMATIC PRAXIS

Jonathan Andrew Smith

Dissertation Prepared for the Degree of

DOCTOR OF PHILOSOPHY

UNIVERSITY OF NORTH TEXAS

July 2023

APPROVED:

Jon C. Nelson, Major Professor Joseph Klein, Committee Member and Chair of the Division of Composition Studies David Stout, Committee Member Jaymee Haefner, Director of Graduate Studies in the College of Music John Richmond, Dean of the College of Music Victor Prybutok, Dean of the Toulouse Graduate School Smith, Jonathan Andrew. "Utterances": Approaching a New Acousmatic Praxis. Doctor of Philosophy (Music), July 2023, 148 pp., 18 figures, bibliography, 37 titles.

This dissertation is a thorough examination of the problems modern composers of electronic music face when writing or discussing acousmatic music as derived from Pierre Schaeffer. By taking a close examination of Schaeffer's own writings on the subjects of reduced listening and acousmatic sounds, I illustrate the difficulties and inconsistencies in Schaeffer's philosophy and the problems that his reliance on Husserl's phenomenology creates. Further examination of criticisms of Husserl from Derrida and Heidegger highlight the ways that Schaeffer's phenomenology needs to be updated for the modern acousmatic composer. Articles by modern acousmatic composers such as Adrian Moore, Denis Smalley, Simon Emmerson, and others illustrate how artists have dealt with the problems in Schaeffer's ideas and the inconsistent ways they have applied his principles of sound and the sound object. I argue that a new method of musical meaning as a method of composition and analysis is necessary to resolve these conflicts and inconsistencies. This method is found in the writings of J.L. Austin, and Ludwig Wittgenstein through Andrew Chung, who places significant emphasis on the actions and effects that music takes. By reframing the acousmatic problem through meaning-as-use, I attempt to modernize Schaeffer's conceptions of sound and emphasize the significance of the ways that sound is used by composers as the crux of a modern acousmatic praxis.

Copyright 2023

by

Jonathan Andrew Smith

ACKNOWLEDGEMENTS

Appreciation and gratitude are due to the many mentors, colleagues, and friends who provided support, feedback, and guidance throughout this project.

Within the composition division at UNT, I was supported by many fantastic professors who made *Utterances* possible. I will forever be grateful to my major professor Jon Nelson, who was a brilliant and thoughtful mentor guiding me through the process of writing this dissertation and coalescing my ideas into a meaningful and cogent form. Additional thanks are due to Joseph Klein, who provided significant support and many musical insights during the composition of this piece. Finally, David Stout provided significant guidance in the earliest stages of the formulation of these ideas, serving as a sounding board and guide when they were still loose associations and vague conceptions of what it means to be a modern composer of electronic music. I would be remiss if I didn't acknowledge and show special appreciation to Andrew Chung, another faculty mentor who served as my guide through many difficult ideas and provided the initial impetus that became the idea of *Utterances*. These ideas would not have been possible without his groundwork and support.

Additionally, my musical collaborators Erin Cameron, Mia Detwiler, Garrison Gerard, Alvin Leung, Anne Maker, Kourtney Newton, and Jordan Walsh made this piece possible in the first place and provided a tremendous amount of inspiration and feedback during the composition of each of their movements.

Finally, my deepest gratitude goes out to my fiancée Anna, who has been an unshakable foundation for me during this project. Her love, support, and generosity have been essential to my success in this project, and her sharp intellect and eye for detail made *Utterances* into what it is today.

iii

TABLE OF CONTENTS

ACKNOWLEDGEMENTS
LIST OF FIGURES
PART I: CRITICAL ESSAY
Chapter 1. Introduction
Chapter 2. Pierre Schaeffer and the Acousmatic
Chapter 3. Post-Husserlian Phenomenology, Deconstruction, and an Initial Critique of Schaeffer
Chapter 4. Post-Schaeffer Acousmatics and the Problem of Mixed Music
Chapter 5. How to Do Things with Music: J.L. Austin, Andrew Chung, and Reconciling the Acousmatic
Chapter 6. Utterances and Gestalt Formal Concerns
Chapter 7. Movements 1-5 and Their Function as Utterances
Chapter 8. Connection 1: Assembling the Self
Chapter 9. Conclusion
Bibliography
PART II: UTTERANCES FOR PIERROT ENSEMBLE
Utterances: Prelude Center/Welcome
Preface
Notes for Performance
Score
Utterances: Fear/Play
Preface
Acknowledgements
Notes for Performance
Score
<i>Utterances</i> : interlude Strive/Hope
Preface100
Acknowledgements100
Notes for Performance

LIST OF FIGURES

Figure 1: Schnee Intermezzo 1
Figure 2: Utterances; Prelude Center/Welcome- Violin
Figure 3: <i>Fear/Play</i> mm. 4-6
Figure 4: <i>Fear/Play</i> mm. 35
Figure 5: <i>Fear/Play</i> mm. 84-87
Figure 6: "Strive/Hope" Web 3 57
Figure 7: <i>Rage/Remit</i> mm. 1-7
Figure 8: <i>Rage/Remit</i> mm. 86-90 59
Figure 9: <i>Rage/Remit</i> mm. 151-153 59
Figure 10: <i>Love/Grief</i> melody
Figure 11: Love/Grief Systems 2-6
Figure 12: Love/Grief Systems 17-19
Figure 13: <i>Love/Grief</i> System 24
Figure 14: Connection I mm. 1-4
Figure 15: <i>Connection I</i> , Flute and percussion mm. 33-36
Figure 16: <i>Connection I</i> mm. 55-59
Figure 17: Connection I mm. 84-96 68
Figure 18: <i>Connection I</i> mm. 105-114

PART I

CRITICAL ESSAY

Chapter 1

Introduction

When learning to make computer music in an academic setting, composers are often presented a cursory overview of the ideas and writings of Pierre Schaeffer, and by extension, the idea of acousmatic music. For many, a relatively shallow understanding of Schaeffer's ideas of the sound object and acousmatic listening is enough to comprehend the genre sufficiently, especially composers who engage with computer music as a relatively small part of their oeuvre. For the dedicated academic electronic music composer, however, a more detailed look at the acousmatic question is necessary to understand how the genre has evolved so that we may find our place within it and contribute meaningfully to the tradition.

When writing this dissertation, a conundrum quickly emerged: much of the writing about acousmatic music and the extensions of *musique concrète* place great significance on the separation between sound and source facilitated by the use of loudspeakers. Even the name "acousmatic" is defined by early electronic music composers and theorists as the idea of an unseen sound and the detachment that comes from conceptually bracketing or segregating the sound object from its originating body. This is a challenging framework for my understanding of acousmatic sound for several reasons. Firstly, the assertion that we can truly divorce an understanding of a sound's source from the sound itself seems dubious at best, since this represents an artificial imposition onto our natural perceptions. This also presents a challenge to the modern idea of acousmatic mixed music, which relies on a live performer playing alongside electronic sounds. Additionally, many acousmatic mixed music compositions tend to emphasize the presence and agency of the performer, giving them a significance that seems to be at odds with the prevailing conception of acousmatic music as a genre. Finally, significant figures calling

2

themselves acousmatic composers writing music today include mixed music as a substantial part of their output. This conundrum indicates that either acousmatic mixed music is an impossibility or the definition of "acousmatic" has evolved significantly since the inception of the term.

The process of reconciling this seeming contradiction in the contemporary use of the term "acousmatic" led to the composition of *Utterances*, a modular work for Pierrot ensemble comprised of a series of extractable standalone movements. Each movement, other than the last, is for one or two instruments from the ensemble with interactive electronics that listen and respond to the performers utilizing processed versions of their own sounds. The final movement synthesizes the ideas expressed in the solo and duo movements within a full ensemble setting, showcasing and further developing the connections between movements. This piece represents an attempt to shape a conception of a people-centered acousmatic music.

Utterances is an in-depth examination of the idea of acousmatic music, the sound object, and Schaeffer's "reduced listening" that strives to explore and resolve the tensions that exist between acousmatic notions and modern electronic music praxis. This examination requires a more detailed look at phenomenology, the philosophical tradition that influenced the development of *musique concrète* and the framework through which Schaeffer came to understand music and perception. The examination of the work of philosophers such as Edmund Husserl provides contextual understanding of the mindset that shaped early French electronic music and the phenomenological lens that led to its development. Subsequent criticisms of Husserl and phenomenology offer insight into the problems faced by modern acousmatic composers by offering new perspectives on its relevant philosophical foundations. Thinkers such as Derrida, whose *Voice and Phenomena* engages with and deconstructs Husserl's dismissal of metaphysics, and Heidegger, who examines Husserlian conceptions of bracketing and the eidetic

3

reduction, are particularly relevant to seeking a new understanding of the term "acousmatic."

Just as acousmatic music is still being written, acousmatic theory, philosophy, and pedagogy are still evolving. To further understand how compositional thinking about academic electronic music has developed since Schaeffer's 1966 *Traité des objets musicaux*, it is necessary examine writings by Denis Smalley, Adrian Moore, Natasha Barrett, Trevor Wishart, and other contemporary acousmatic composers. Similarly, Brian Kane's *Sound Unseen* provides significant insight into the myths and ideas surrounding conceptions of acousmatic sound, unraveling misconceptions and mysteries that have developed since the invention of the Pythagorean veil.

Looking beyond Schaeffer and acousmatic scholarship, the title *Utterances* is derived from the work of music theorist Andrew Chung, and by extension linguist J.L. Austin, which posits that meaning in music can be understood through the ways that it performs "meaningful actions with meaningful consequences."¹ While the relationship between linguistic theory and conceptions of acousmatic sound may seem distant, the confluence of the two provides significant insight that profoundly influences my own acousmatic praxis. J.L. Austin's notion of a "linguistic phenomenology" comes into play here as his conception of utterances emphasizes the experienced reality of language by its "usefulness and efficacy," which leads us into a new understanding of musical reality centered around what it (music) is doing, rather than only the external signifiers or internal sound characteristics that might be perceived.² It is through Austin and Chung that I conceptualized and formed *Utterances* as a project. This emphasis on what the

¹ Chung, Andrew, "Music as Performative Utterance: Towards a Unified Theory of Musical Meaning with Applications in 20th-Century Works and Social Life," Yale University, 2019, 10.

² Ibid., 15.

music is doing is fundamental to its construction, and each movement bears the musical realization of a human action or experience tied in pairs.

The totality of *Utterances* engages with acousmatic ideas in mixed music and finds a meaningful praxis for people-centered music using Chung's theories about musical meaning to reconcile critical examination of phenomenology with Schaeffer's philosophy of sound. This produces an understanding of electroacoustic music theory that emphasizes an inclusive approach to acousmatic sound that reframes the current understanding of the term to include the modern praxis of electroacoustic music, particularly as it exists in the United States.³

³ It is worth noting that, while mixed music is by no means unique to US electroacoustic music, it is a prominent factor in the modern practice of electronic music at American universities and at national organizations such as the Society for Electroacoustic Music in the United States (SEAMUS).

Chapter 2

Pierre Schaeffer and the Acousmatic

Pierre Schaeffer formulated and developed the ideas of reduced listening, the sound object, and our modern conception of the word "acousmatic," inspired as it was from accounts of Pythagoras lecturing from behind a veil.⁴ Indeed, close examination of the word's usage pins its relevance to the veil, with Schaeffer's own chapter on acousmatics opening as follows: "Acousmatic, says the Larousse dictionary: name given to the disciples of Pythagoras who, for five years, listened to his lessons hidden behind a curtain, without seeing him and observing the strictest silence. Only the voice of their master, hidden from their eyes, reached the disciples."⁵ Michel Chion, another important early writer on acousmatic sound, gives a definition strictly derivative of Schaeffer's: "indicating a noise which is heard without the causes from which it originates being seen."⁶

François Bayle similarly places a great significance on the invisibility of the sound source, giving his definition as "Acousmatic-situation of pure listening, without attention being diverted or reinforced by visible or foreseeable instrumental causes."⁷ Similar insistence on the primacy of the invisibility of the sound sources in acousmatic music is found in Natasha Barrett's "Spatio-musical composition strategies," where she plainly states, "In acousmatic

⁴ As Brian Kane asserts in *Sound Unseen: Acousmatic Sound in Theory and Practice* (New York, NY: Oxford University Press, 2014), it is difficult to know for certain the veracity of these tales, given the lack of a reliable primary source and the abundant mythologizing that has occurred after Schaeffer started using the word acousmatic in relation to his reduced listening. The whole Pythagorean situation is shrouded in mystery and likely apocryphal. Kane, Brian.

⁵ Schaeffer, Pierre. *Treatise on Musical Objects: Essays across Disciplines*. Trans. Christine North, and John Dack. California Studies in 20th-Century Music 20. Oakland, California: University of California Press, 2017, 64

⁶ Chion, Michel, and James A. Steintrager. *Sound: An Acoulogical Treatise*. Durham: Duke University Press, 2016, 11.

⁷ Bayle, *Musique acousmatique* as translated in Kane, 46.

music, our real-time visual perception is not part of the listening experience."⁸ Denis Smalley's influential "Spectromorphology: explaining sound-shapes" also defines the acousmatic almost exclusively in term of invisible sounds; "Spectromorphological thinking is primarily concerned with music which is partly or wholly *acousmatic*, that is, music where (in live performance) the sources and causes of the sounds are invisible."⁹

Clearly, then, there is a significant perception among prominent composers of acousmatic music that their genre is distinctly linked to the idea of the Pythagorean veil. The importance of unseen sounds in the conception of electronic music is a notable one, since the technological reproduction of sounds over a loudspeaker allows for the sound to be produced without the originating sounding body, if it ever had one to begin with. Before the advent of recording technology, a sound could not be produced outside of its sounding body, linking the two as a perceptual entity. However, the ability to segregate a sound from its source led Schaeffer to seek a new mode for understanding music, which caused him to turn to phenomenology.

Phenomenology was useful to Schaeffer because it contextualized the difference between a sound and its source and allowed him to construct the idea of the sound object, a perceptual entity comprised of the sound alone. His description of the sound object is directly related to the idea of bracketing¹⁰, called the *époché* by Husserl, the most prominent phenomenologist cited in Schaeffer's *Treatise*. Bracketing strips away signifiers and assumptions to come closer to the essence of an experience or phenomenon.

⁸ Barrett, Natasha. "Spatio-Musical Composition Strategies." Organised Sound 7, no. 3 (December 2002): 313–23, 1.

⁹ Smalley, "Spectromorphology: Explaining Sound-Shapes," Organised Sound 2, no. 2 (August 1997): 107–26, 109.

¹⁰ Bracketing has a distinct meaning in phenomenology that differs from its common usage. When referring to bracketing in this context, I refer specifically to the *époché* and the kind of isolation of phenomenon that it describes.

Husserl provides the example of a horse to demonstrate this concept, where "horse" exists as a phenomenon regardless of the context in which it is experienced. This example is also used by Schaeffer to illustrate his formulation of the sound object, the distinct phenomenon of the sound itself without the weight it bears as a signifier of the idea of a horse. "When I listen to the galloping noise on the gramophone, the object I target. . . is the horse galloping. . . it is in relation to this that I hear the sound as an *indicator*."¹¹ Here, rather than the sound functioning as an independent object, Schaeffer is illustrating the normative experience of linking the sound of galloping to the horse, where the galloping sound, through prior association on the part of the listener, indicates the idea of the horse and the layers of significance that come with that concept. The sound becomes a sound object when the listener engages in what he calls "reduced listening," rejecting any external indication or significations to focus on the information presented to the ear alone. In other words, reduced listening would bracket the sound by itself, away from any visual imagery of a horse or any of the other understanding of the horse as an entity. Instead, the sound itself becomes the entirety of the entity, an object apart from and independent of the object that produces it.

Similarly, when a person hears an unfamiliar language spoken, their perceptions of the underlying signifiers of that speech are strictly limited. Since they cannot understand the signifiers in front of them, this person would only hear sounds with the limited context that they know that the sounds might signify something and are produced by a voice. However, when we hear someone speaking in a language that we do understand, a whole world of indications is open to us. We understand not only that a voice is speaking, but also a plethora of signifiers and their inherent conceptual baggage. Schaeffer calls this "referential listening" and states that

¹¹ Schaeffer, *Treatise*, 210-211.

"Most of the time, as we have seen, my listening targets *something else*, and I hear only indicators or signs. . . The better that I understand a language, the more difficult it will be to *perceive it with my ear.*"¹²

The idea of the sound object is thus constructed through the *époché*, by stripping away any meaning or perception that doesn't come from the sound itself. Information such as frequency, periodicity, timbre, intensity, and texture are internal to the world of the sound object and become the crux of our understanding here. Schaeffer constructs reduced listening in such a way as to come to a new understanding of the sounds themselves, unburdened by any significance outside of their implicit sonic characteristics. This attempt to codify and recontextualize sound into potential musical materials provides a conceptual foundation for the origins of *musique concrète*.

Turning back to the primacy of the invisibility of acousmatic sound, the lack of visual information is paramount to Schaeffer's understanding of the sound object. Not only did the lack of the presence of the sounding body inspire the concept of the sound object to begin with, it also made the *époché* initially possible by removing a key perceptual experience and the sound's context. The visual is given primacy here based on the privileged position sight has as a sensory mode of understanding, but ostensibly similar observations could be made about the other senses. Because I cannot see, smell, touch, or taste (thankfully) the horse, I can reduce my experience of the sound into a purely aural phenomenon. However, even this is not enough to effectively achieve the *époché*, since our understanding of sensory information is loaded with indicative connections. Schaeffer himself acknowledges this fact, stating that we are naturally

¹² Schaeffer, *Treatise*, 212.

drawn to think about the causes of the sounds we hear.¹³ Through technology, however, the composer/listener can ostensibly achieve this bracketing through the two principal advantages that recording offers: reproducibility and manipulability.

Reproducibility offers two distinct advantages. The first is a kind of semantic satiation, playing a sound repeatedly until the listener's understanding of the source becomes forgotten, akin to how we forget that we're wearing a shirt after prolonged experience of the tactile sensation of wearing clothing. The second is that repeated listening can give the listener a new perspective on the inherent qualities of the sound, drawing our attention to things like timbre, texture, and intensity and away from the more obvious identification of the sound source, an association that Denis Smalley calls source bonding.

Similarly, the manipulability of recorded sound by an experienced practitioner allows the listener to experience the sound fragmented, transposed, and transformed, thus revealing new aspects of the aforementioned sonic characteristics that *musique concrète* and later acousmatic composers primarily concern themselves with.

The capabilities that technology offer the electronic music composer directly parallel Husserlian bracketing, sequestering individual perceptions from their context to arrive at an understanding of the phenomenon of an object. Just as we look at a three-dimensional shape or a piece of furniture from multiple angles to phenomenologically construct the complete conception of that object, so too does recording technology allow us to hear a sound from "multiple angles" and allow, with concerted effort, an understanding of that sound object's inherent characteristics free from signifiers. To Schaeffer, the inherent characteristics of sounds and the way acousmatic listening enables us to do things with the sounds are more important than the signifiers or

¹³ Schaeffer, *Treatise*, 66.

indicators contained within those sounds, and technology allows us to achieve this phenomenological project in some capacity.

Chapter 3

Post-Husserlian Phenomenology, Deconstruction, and an Initial Critique of Schaeffer

The acousmatic situation presents us with new problems to solve and new challenges to overcome. There are significant flaws in Schaeffer's conceptions of acousmatic listening and the perceptual goals of *musique concrète*. Schaeffer himself acknowledges that bracketing and reducing listening is by no means a natural state of being, but rather a forced and learned way to approach sound to drive new perceptions and examine our preexisting biases.¹⁴ By avoiding the appeal to nature, Schaeffer makes his argument more robust, positing that this method of perception that is contrary to our default understanding should be attained with significant effort because it gives us a new perspective on sound.

However, there are profound challenges to an understanding of acousmatic sound predicated on the significance of its invisibility. To start, it contextualizes sound through sight rather than hearing. The problem raised here is that such an emphasis on the primacy of sight naturally decenters hearing as the primary method through which all music is experienced. While I can see a violin playing in an acoustic concert setting, its *raison d'être* is found in its capacity to make sound. Contemporary works like Georg Friedrich Haas's String Quartet No. 3 emphasize this fact, as it is performed in complete darkness for the entirety of its duration. Acousmatic composer Denis Smalley acknowledges in "Spectromorphology" that contemporary trends in the distribution of music exemplify this problem: "The distinction between what is and is not acousmatic becomes blurred even further in a CD recording where everything becomes invisible."¹⁵ A Beethoven symphony does not become acousmatic music or *musique concrète*

¹⁴ Schaeffer, *Treatise*. 212.

¹⁵ Smalley, "Spectromorphology," 109.

just because we cannot see the orchestra when we hear it on the radio, so the emphasis on invisibility in Schaeffer's initial formulations of the conception are imprudent or misleading at best.¹⁶

Another difficulty with reduced listening is the sheer challenge of achieving it. Schaeffer's description of pushing away the natural and cultural baggage we bring to listening to achieve reduced listening is daunting at best:

If we vigorously push all that aside – and what diligence, what repeated exercises, what patience, and what new rigor we will need! – could we, by freeing ourselves from the ordinary, 'throwing out the natural' as well as the cultural, find an authentic *sound object*, the offspring of the époché, that, if possible, would be accessible to every listener?¹⁷

Many acousmatic composers attempt to achieve the sound object through the means that Schaeffer describes, using repeated listening and manipulation of the sounds to arrive at the essence of the sound itself. This can be a useful tool when seeking, manipulating, analyzing, or evaluating materials for use in a composition, allowing the composer to perceive the sonic qualities that make a sound a rich tool for use in a composition and overlook its obvious or mundane indications.

However, the heart of Schaeffer's question above is contested by close analysis. In asking, "could we. . . find an authentic *sound object*. . . that. . . would be accessible to every listener?"¹⁸ Schaeffer puts an unreasonable burden on the listener and composer by expecting *every* listener to achieve the kind of reduced listening necessary to achieve the sound object. It seems a difficult task to ask of even dedicated academic musicians, much less the casual listener

¹⁶ The educated electroacoustic musician may say, "The reason that invisibility is so emphasized is *because* of the perceptual changes it leads to. The lack of visual perception is a means to an end, and so emphasizing it here is misrepresenting the fundamental point of acousmatic listening!" This is addressed further in the next chapter.

¹⁷ Schaeffer, *Treatise*, 213.

¹⁸ Ibid.

or the layperson whose usual listening modes are laden with indicative pointing and a web of associations, signifiers, and subjective experiences. Because of evolutionary traits, learned modes of being, and the human tendency towards pattern recognition, every listener will be forced to acknowledge and understand the sources of a given sound and pull in a world of indicated concepts not present in the "authentic" sound object. Even more difficult to manage is the inherent subjectivity of potential associations within each listener. Life experiences, capacity for memory, and many other factors mean that the number, type, and strength of associations with a particular sound will be dramatically different from person to person.

The acousmatic composer can attempt to help the listener and lead them to the sound object using the aforementioned techniques relying on the reproducibility and manipulability of recorded sounds. After all, if these techniques can help a composer approach a reduced listening, one might reasonably assume that it will similarly help the audience. In musical practice, however, these techniques are less helpful and can be limiting to an extreme degree.

For example, utilizing reproducibility effectively to assist in neutralizing the inherent indications of a sound would require a commitment to repetition so profound that it would become a major stylistic trait, one that most acousmatic music does not share. Few pieces of electroacoustic music reproduce the kind of semantic satiation necessary to enable the listener to forget their associations with a given sound. The most famous of these are Steve Reich's two early tape pieces, *It's Gonna Rain* and *Come Out*, which are strict process pieces using a small fragment of recorded sound manipulated and repeated until not only have the vocal sounds been stripped of their latent signifiers as language, but also rendered into pure sound, existing only to fulfill the process at the heart of the pieces.¹⁹ While these pieces could be said to achieve the

¹⁹ It is here worth acknowledging the difficult relationship that *Come Out* has with its own internal racial politics, since the piece essentially strips the meaning and identity from a recording of a black person describing racially

kind of decontextualization needed to help a listener "run the gauntlet" of the *époché*, they are generally not considered acousmatic pieces, and their commitment to the minimalist style runs at odds with the typical aesthetics of post-Schaefferian acousmatic music.

The more potent tool in the hands of composers is the manipulability of recorded sound. A composer can apply a massive array of transformations to a sound to render it unrecognizable. With modern computer technology, it is relatively trivial to transform an easily recognizable sound into a phantasmagorical sound object decoupled completely from its sounding body. This seemingly encourages reduced listening, but it has created a new problem. The transformed sound has new sonic characteristics to at least some extent, having been warped enough to be denuded from its latent indications. Instead of helping the listener to reach a new perception of the original sound, then, the composer has created an entirely new sound object to meet their goal. It also doesn't actually solve the problem of creating a new reduced listening in the observer. While it has definitionally disassociated the pre-existing indications that the sound would have evoked, there is nothing to stop the listener from making new connections and associating the newly created sound object with a new set of indicators. If we transform a horse sound so that it no longer reminds the listener of a horse, they will naturally gravitate instead towards the most closely associated sound they can imagine. This is largely because humans are exceptionally good at finding connections and seeking patterns with an instinct towards associating sounds with a source as a part of an evolutionary survival instinct. In addition to being inept at actually facilitating bracketing, this kind of radical transformation is also unnecessarily compositionally and creatively limiting, albeit less so than utilizing

motivated violence by the police. While a more thorough examination of this idea is beyond the scope of this project, I still feel that it is important to mention that the semiotics involved in this piece are problematic and complex.

reproducibility. By limiting themselves to only radically transformed sounds, composers would be unable to use any identifiable sound in their piece without warping it first, limiting their sound materials to the unnatural or murky. This is also obviously not the solution given the ubiquitous use of identifiable sounds in acousmatic music.

A plethora of philosophical criticisms of Husserl's phenomenology call into question the suitability of the *époché* as a meaningful tool for phenomenological work. Jacques Derrida is among those that present challenges to Husserl's work, and his deconstruction of the very idea of the separability of indication and expression in his *Voice and Phenomena* presents problems for Schaeffer and his sound object.

Essentially, within Husserlian phenomenology, there are two aspects to any given sign, particularly within language. The first is the conception of expression, which comprises the inherent meaning of a sign. This is how the word "horse" means a horse; the expression underpinning the word as sign is the psychological reality underpinning a speaker's use of that sign. The second, and one that we've already encountered in Schaeffer's writing, is the idea of the indication, which is the facet of a sign that points to something. We earlier found indication in the idea of listening to a sound and identifying its source, the way that the sound of a galloping horse will point to the horse. In this instance, the sound points to the horse but does not mean the concept of a horse. This is why Schaeffer spends so much of his time talking about indication as a concept; indications are fundamentally what reduced listening is attempting to remove from our perceptions of a sound.

However, Derrida points out that this framing presents us with a problem. Expression, as it is used and experienced by people, fundamentally contains within it an indication. The use of any given sign to *mean* something definitionally points to that thing. If the expression behind the

16

word "horse" is the inner psychological reality of the speaker, then the word inherently indicates, or points to, that reality. Phenomenologically, it is impossible to express something without also indicating something.²⁰ This is a problem that Husserl attempts to resolve by suspending the reality of the expression, by deferring its status as a sign to make it purely expressive without being indicative. A truly objective expression must not point at something external but be contained within itself. This is, however, fundamentally impossible. A signifier must definitionally point to a signified, so any expression that attempts to mean something must also point to something. If any given signifier must point to something to find meaning, then our understanding of that meaning is predicated on our understanding of other signifiers. This creates what Derrida terms *différance:* an endless deferral of meaning, an infinite loop of signifiers wrapping around the objective expression asymptotically without ever actually reaching it.

We can reach a similar loop of deferred meanings when examining the idea of reduced listening more closely because any given sound is laden with indications. These indications emphasize to an extreme degree the physical characteristics of the sound's source and the space in which it is made and are inextricable from the experience of that sound. Every time we come to a new revelation of the characteristics of a given sound, we are inundated with new information that indicates something about the production of that sound. If we are attempting to bracket a sound from what it signifies, that bracketing is breached when we begin to analyze it further. A new understanding of the timbre of a sound can recontextualize the sounding body and attempt to indicate something new about it. In the example of the sound of a galloping horse, even if the listener can get past my initial impression and bracket the horse from its sound,

²⁰ Derrida, Jacques, and Leonard Lawlor, *Voice and Phenomenon: Introduction to the Problem of the Sign in Husserl's Phenomenology*. Northwestern University Studies in Phenomenology and Existential Philosophy. Evanston, Ill: Northwestern University Press, 2011, 18.

further analysis would reveal new information about the horse, such as the size of the horse or the speed at which it travels. These need not be precise observations to be intrusive indications in the attempt to listen to the sound object itself. As Kane writes in *Sound Unseen*,

The spacing of source, cause, and effect characteristic of acousmatic sound is made perspicuous by the fact that the sonic effect underdetermines attributions of the source or cause. When discussing the acousmatic voice, we might adjust the terms slightly and say that the underdetermination of the source by the voice reveals the structural spacing of the voice and its source. That spacing, rather than encouraging a reduction of the voice *either* to the status of an autonomous entity *or* to the physicality of its source, makes the voice into a site of endless detour or reference.²¹

We can see a tension in Kane's description of the state of the acousmatic sound, where the acousmatic listener's attempt to isolate the sound from its source is battling with the inherent physicality of the nature of sound. There is a constant back and forth as the cause of the sound asserts itself willfully into our perceptions by the nature of our relationship with sound. Indeed, the very nature of an unseen sound creates a difficulty in resolving our perceptions as our own evolutionary biases towards attempting to identify and learn about the causes of an unseen sound rear their head.²² Kane takes one step further along this line of thinking, writing that "The acousmatic voice directs the listener towards the present absence or the absent presence of the source, without ever allowing the completion of that passage."²³ That is, even when we cannot identify the source of a sound, the fact of the sounding body's inscrutability is itself a powerful indication.

If we take Derrida at his word, then the notion of *différance* puts the entire project of phenomenology at risk, including the conception of reduced listening. The notion of reaching the

²¹ Kane, 194-195.

²² This can be thought to originate from our instincts relating to accurately identifying dangerous sound sources, since the unseen predator poses no less of a threat than the visible one does. This is a common idea presented in acousmatic

²³ Kane, 195.

ideal sound becomes a fool's errand through Derrida's lens, since any attempts to bracket the sound object would result only in a reaching inward, towards a deeper layer of subjective perception. As we peel back and interpret the layers of timbre, intensity, frequency, and gesture, we actually become more inundated with an understanding of the source of a sound, not less. Even more damning to Derrida would be the inescapable nature of presence and the undeniable nature of reality that pins Husserl's phenomenology to a metaphysical foundation that is eroded by the presence of *différance*.²⁴

Relevant here are the critiques and observations of German phenomenological philosopher Martin Heidegger. Heidegger's standpoint challenges Husserl's notion of the *époché*, the phenomenological bedrock upon which Schaeffer's sound object rests. The idea of the *époché* posits that the eidetic reduction can effectively strip away the remainder of the world to examine a particular phenomenon effectively and clearly with scrutiny outside of the influence of any external factors; we can understand a sound as a sound because we strip away its indications and emphasize the inherent qualities of the sound itself as an object. The central argument of Heidegger's *Being and Time* directly contradicts the possibility of the *époché*, or indeed of any concept fully bracketed from cultural and individual contexts. For Heidegger, "It is an irreducible and ultimate fact that man exists in a world which transcends him and in which he finds himself. He *is there* in it."²⁵ Therefore, the very conception of the *époché* is not a reduction, as Husserl says, a denudation of a phenomenon to reach its essence; instead, Heidegger argues, this attempt at bracketing is actually an act of imposition, a warping of the world around us to suit the purposes of the analysis. While Schaeffer and Husserl acknowledge

²⁴ Derrida and Lawlor, 85.

²⁵ Schacht, Richard. "Husserlian and Heideggerian Phenomenology," Philosophical Studies 23, no. 5 (October 1972): 293-314, 304

that the reduction is not a natural state, it must be arrived at by effort, Heidegger takes it a step further by asserting that removing a sound from its place in the world distorts and twists it, rendering it fundamentally and unequivocally different. "What we 'first' hear is never noises or complexes of sounds, but the creaking wagon, the motor-cycle. . . It requires a very artificial and complicated frame of mind to 'hear' a 'pure noise."²⁶ Heidegger here uses the palpable fact of source bonding as our immediate experience as evidence that "being-in-the-world," what he calls *Dasein*, always already exists when we perceive the object. Brian Kane contrasts Heidegger's stance with Schaeffer's constructions, writing:

It would be mistaken to think that our initial relation to a sound is to hear it as a sensation or an effect and then work our way back to the cause or source by inference. That view would promote a distorted view of how we relate to the world – for it would make our world appear secondary, as if it were constructed by, first, encountering uninterrupted things, second, giving them interpretations and, finally, relating them all together to make a world.²⁷

That is to say that Heidegger's argument is that a thing's essence depends upon the world in which it exists. We do not create the world around us from things; we interpret and experience that which already is.

Therefore, for Heidegger, it would be erroneous to assume that we can arrive as the pure essence of anything, including a sound, by the "annihilation of the world" as Husserl puts it. The sound's essence is dependent upon its existence and "the essence of a thing is distorted when its existence is bracketed."²⁸ This is particularly true, as stated before, given the fundamental nature of sound, which must exist in space and time to be perceived. The context of the space, the physical medium through which sound travels, is fundamentally and inextricably linked to the

²⁶ Heidegger, Martin, John Macquarrie, and Edward S. Robinson. *Being and Time*. New York: HarperPerennial/ Modern Thought, 2008, 164

²⁷ Kane, 196.

²⁸ Ibid., 197.

nature of that sound. If we are bracketing a sound from its sounding body, we are also bracketing that sound from the space in which we hear it. It is impossible to truly achieve that bracketing if differences in reverberant space fundamentally and inextricably determine the characteristics we are attempting to bracket.

Finally, there is another flaw in the traditional conception of the acousmatic as "indicating a noise which is heard without the causes from which it originates being seen."²⁹ The foundational myth at the heart of the acousmatic movement in music uses the metaphor of Pythagoras to illustrate the concept of unseen sounds. The legend of the Pythagorean veil hangs ominously over Schaeffer's theories, and he even compares the curtain to the tape recorder explicitly.³⁰ This conception of the veiled sound is fundamentally flawed as a tool to understand Schaeffer's synthesis of his own musical observations with the phenomenology of Husserl.

Fundamentally, the curtain of Pythagoras has a different function than Schaeffer's own use of the loudspeaker to arrive at the sound object as an entity. Pythagoras's curtain was purported to hide him while he lectured, separating him visually from his listeners. However, this visual separation was intended to *emphasize* and *magnify* what is signified by his speech. He was ostensibly hiding himself from his students to strengthen the meaning of his speech and improve their focus on what he was attempting to indicate. Not only is this radically different from Schaeffer's explicit goals in creating acousmatic music, it is arguably the complete opposite. Schaeffer seeks to strip the sounds of any signifiers or indications to magnify the primacy of the sound itself. If a listener were to approach a Pythagorean lecture from behind the veil with Schaefferian goals in mind, they would hear the timbre of the voice, the speed and articulation of

²⁹ Chion and Steintrager, 11.

³⁰ Schaeffer, *Treatise*, 69.

the diction, the resonant qualities of the space it resides in, and the intensity of the sound of the speaker. They would not focus on the topic or content of the lecture itself, contrary to Pythagoras's purported intention behind hanging the curtain in the first place. So many definitions of the word "acousmatic" refer to the Pythagorean myth, but so few of them actually examine the etymology of the word.

Extant translations of the conception of the acousmatic have emphasized the wrong aspect of Pythagoras's lectures. The Greek word ακούσματικοί does not, itself, refer to the idea of something veiled, hidden, or out of sight. Instead, it more accurately translates to "the listeners." This suggests that there is room to expand Schaeffer's conception of the acousmatic that might more accurately reflect the work done by acousmatic composers.

The modern electroacoustic composer is thus faced with numerous complications to Schaeffer's conceptualization of the acousmatic situation. The phenomenology that Schaeffer built his treatise upon seems unstable ground upon which to build a modern musical praxis.

Chapter 4

Post-Schaeffer Acousmatics and the Problem of Mixed Music

As research and technology has vastly changed our relationship to and understanding of sound, numerous practitioners have questioned Schaeffer's conception of the acousmatic. Simon Emmerson's introduction to *Music, Electronic Media, and Culture*, a collection of philosophical and theoretical works by prominent electronic music composers published in the year 2000, opens with the following: "The death in August 1995 of the founder of musique concrète, Pierre Schaeffer, coincided with a groundswell of interest in his ideas and the works of those who had developed the field – often in ways in which he would not have approved."³¹

The first chapter of that same volume, penned by composer Luke Windsor, defines acousmatic music in Schaeffer's terms, staking an interest in "music which not only requires this kind of mediation (the mediation of loudspeaker) but also denies a visual source for its constituent sounds. Such music has been termed acousmatic, reflecting the theoretical ideas of Pierre Schaeffer."³² He goes on to call the idea of defining acousmatic music as music that draws a listener into the acousmatic mode "far from realistic," while going on to assert the importance of the acousmatic stance into the understanding of all unseen music, intentional or not.³³ Windsor's perspective hinges on his understanding of ecological acoustics, and he inherently rejects the binary that Schaeffer (through Husserl) seemingly presents of sound as being either a sign or a sound object, writing that "Such mediated concepts are unnecessary for sounds to inform us about our environment and that the sources of sounds may be harder to ignore than one

³¹ Emmerson, Simon, ed. *Music, Electronic Music, and Culture*. Burlington, Vermont: Ashgate Publishing Companies, 2000.

 ³² Windsor, Luke. "Through and around the acousmatic: Interpretation of electroacoustic sounds," Simon Emmerson (ed.), *Music, Electronic Music, and Culture*. Burlington, Vermont: Ashgate Publishing Companies, 2000, 7.
³³ Ibid., 8.

might hope."³⁴ Instead, the ecological acoustic perspective seemingly dovetails with Heidegger's work and refers to the sounds as being defined by their existence within an environment, informing the listener of the world around them in a way that is difficult or impossible to disregard or bracket away. Windsor's ultimate conclusion is that the acousmatic curtain not only fails to completely obscure the sources of the sounds behind it, but actually increases curiosity and attention to the causes of unseen sounds. Acousmatic sound thus creates an environment where hearing is the primary sense used to gain information, forcing composers and listeners to listen to the exclusion of sight, taste, touch, and smell.³⁵ He concludes as follows:

When sounds are presented acousmatically, we are both drawn to and freed from literal perception and where such tension is exploited by the musician, an aesthetic begins to emerge which plays with our relationship with the 'real' world. Such exploitation need not be conscious, potentially playing a role wherever the loudspeaker usurps the acoustic sound source; but where it is witting it seems best to remember that whether one's intentions are narrative or not, the acousmatic can be heard through, even if it is visually opaque. Whether a real or virtual 'stage' is heard will depend on the context but we cannot expect the listener to ditch millions of years of perceptual development in the face of a tantalising curtain between sound source and perceiver.³⁶

This exposes an interesting point of view driven by Windsor's attention to acoustic ecology and the unique power of unseen sound when viewed from that perspective. While this seems to fly in the face of Schaeffer's reduced listening, it makes an argument for a similar approach to sound with the major addition that the composer can also use intertextuality and the indicative implications of acousmatic sound materials as another compositional tool.

Ambrose Field, in the next chapter of the same book, asserts that Schaeffer's ideas have so often been adapted and changed to suit particular aesthetic goals and musical desires that it can be easy to lose sight of the original meaning of the word "sound object." He states a desire to

³⁴ Windsor, 16.

³⁵ Ibid., 31.

³⁶ Ibid.

develop a discourse "which can encompass the compositional use of real-world sounds that includes the possibility for extra musical signification in addition to timbral manipulation."³⁷ Field's approach reveals that the general state of acousmatic music as a genre has not been strict about the need to emphasize reduced listening. Because of the rapid development in audio technology since Schaeffer's heyday, as well as the confluence of other artistic and aesthetic developments that have cross-pollinated with electroacoustic music, modern acousmatic music encompasses a large swath of practices and philosophies, many of which rely at least partially on the real-world sounds they employ to function as signifiers of their sounding bodies and environments. As Field writes, "There is no longer any need for composers or listeners to ignore the extramusical connotations of electroacoustic sounds."38 In fact, Field later makes the point that modern audiences of electroacoustic music listen to both the explicit and the implicit at the same time; they can coexist, and composers can use sounds because of their extramusical associations, not in spite of them. Therefore, it is no longer necessary or wise to segregate or bracket sounds as sound objects, because doing so would miss the intertextual meaning modern artists intentionally utilize in their acousmatic music.³⁹

Both Windsor and Field here reflect the trend that, in the 40 years since the publication of Schaeffer's *Treatise*, acousmatic composers had come to accept that the narrow views of reduced listening as espoused by Schaeffer are not practical as the totality of a meaningful musical practice. Along a similar vein, composer Leigh Landy writes, "Schaeffer's goal is perhaps one to aspire to after listening repeatedly to a work, but in itself it is not an obvious tool in terms of

³⁷ Field, Ambrose, "Simulation and reality: the new sonic objects," Simon Emmerson (ed.), *Music, Electronic Music, and Culture*. Burlington, Vermont: Ashgate Publishing Companies, 2000, 36.

³⁸ Ibid. 37

³⁹ Ibid. 39

finding experiential access to sonic works."⁴⁰ A total commitment to the *époché* is a challenging achievement for even dedicated students of Schaeffer. Even so, there remains an emphasis in electronic music on the value of his phenomenological ideas, even if only temporarily or in the abstract, and the veil of the loudspeaker is still an important presence in the genre.

The 2004-2005 volume of the Académie Internationale de Musique Electroacoustique/ Bourges Publication *Relationships between audition and vision in the creation of electroacoustic music* offers several relevant perspectives on the question of unseen sound as acousmatic sound. The first article of note is Simon Emmerson's entry, "Seeing (or not seeing) the loudspeaker; seeing (or not seeing) the music." Emmerson argues here that the characterization of most acousmatic music as unseen is dubious at best, given the overt physical presence of the loudspeaker in its presentation. He asserts that the loudspeaker has a noticeable physical presence that is even more emphasized in the presentation of spatialized music, which most modern electroacoustic music is to one degree or another.⁴¹ His point is not mere pedantry, but an active observation about the nature of sound. Sound must exist in space, as the energy of the soundwave needs a medium to travel through to reach our ears. In presenting acousmatic works, it is necessary to place speakers, often with exacting precision, into specific spaces within the concert setting.

As discussed in the earlier summary of Heidegger's arguments as they apply to acousmatic music, the act of bracketing in reduced listening removes the sound object from its context and thus distorts it, rendering it into a new phenomenon. Because a sound carries with it

⁴⁰ Landy, Leigh, Understanding the Art of Sound Organization, Cambridge, MA: The MIT Press, 2007, 4.

⁴¹ Emmerson, Simon. "Seeing (or Not Seeing) the Loudspeaker; Seeing (or Not Seeing) the Music," *Académie Internationale de Musique Electroacoustique/Bourges VIII*, no. Relationships between audition and vision in the creation in Electroacoustic music (2005 2004): 85–88.

information about the space in which it was made, moving that object into a new space also fundamentally transforms that object. There are now new reverberances, new sonic characteristics, and transformed spectra to consider. Emmerson's point is that the visual relationship of the sound to its sounding body is not removed, but rather transposed. The artifact of the speaker becomes the new sounding body-one that is remarkable in its capacity to produce a near-infinite array of sounds, but a sounding body, nonetheless. To Emmerson, the presence of the loudspeakers and the concert hall presents not a distraction, but an added layer of richness and purpose, creating new visual associations rather than erasing them altogether.⁴² He describes his experience as creating a novel, quasi-hallucinatory "three dimensional tactile 'world' of textures, shapes, and colours."⁴³ For Emmerson, acousmatic music creates not "sound unseen" but sound newly seen, with fresh and vivid visual associations that have little to do with the perceived sources of the sounds. This suggests a perspective that freely associates sensory data of one kind, sound in this case, with visual and even tactile data. Instead of bracketing away the sources of sounds, they are replaced with a phantasmagorical construct that exists as a new world. This could be interpreted as the distortion that Heidegger ascribes to the époché.

Emmerson's final two paragraphs present a curiosity for the purposes of this discussion. He mentions two distinct types of electroacoustic performance involving visual elements and his different responses to them. One is the audiovisual presentation with fixed film or video, which he describes as experientially analogous to a fixed media work without visuals for him, with his constructed visuals melding with the presented ones. More curious, however, is his discussion of presentations with fixed media and live dancers. These performances disrupt his constructed

⁴² Emmerson, "Seeing (or not seeing)," 86.

⁴³ Ibid., 87.

visual images completely, rendering him unable to focus on both visual and aural elements at the same time. He attributes this to the presence of the body on stage; "the sight of the body has a strong focal pull on the attention."⁴⁴ There is no mention in this section of electroacoustic performances involving live musical performers, even though this would have been relatively common practice by 2005. The omission makes a subtle statement that Emmerson only wishes to consider music where the sound is separate from its source and still falls under the strictest definitions of acousmatic. Given that the presence of dancers' bodies distracts Emmerson's experience and makes it more difficult for him to concentrate on the music, perhaps the presence of a violinist or flautist would be equally distracting.

The final article in the volume is Barry Truax's "Electroacoustic music and the visual." This article begins with an acute observation; unseen sound has become a commonplace part of everyday life, with the proliferation of music, radio, and media throughout the spaces we occupy. Soundscapes are so often "displaced" through their use as background noise that the cognitive dissonance of hearing disembodied sounds is virtually nonexistent. ⁴⁵ This renders the hidden status of electroacoustic music relatively banal, as there is little that is novel about unseen sound in the modern age of audio technology. After musing on why acousmatic music has not gained more traction as a popular genre despite this fact, Truax helpfully provides his own definition of the acousmatic as "sound [that] is sufficient in itself and does not require a visual presence."⁴⁶ Truax immediately calls his own definition into question, however, pointing out that visual metaphors for describing sound abound within acousmatic analysis, including the

⁴⁴ Emmerson "Seeing (or not seeing)," 87.

⁴⁵ Truax, Barry. "Electroacoustic Music and the Visual." *Académie Internationale de Musique Electroacoustique/Bourges VIII*, no. Relationships between audition and vision in the creation in Electroacoustic music (2005 2004): 135.

⁴⁶ Ibid., 135.

spectromorphological sound shapes of Smalley and the sound images of Wishart; timbre is often described in terms of color, and descriptions of musical space seem inextricably linked to visual space.⁴⁷ Truax ascribes this to the very nature of perception and the fact that the brain is always making connections between senses.⁴⁸

This observation speaks to the difficulties that many, including Schaeffer himself, have described in the achievement of the sound object as a perceptual entity. Our own way of analyzing, interpreting, and communicating our ideas about the nature of music is expressed as visual metaphor because we have difficulty separating perceptions of the visual from perceptions of the aural, even with concerted effort. When we do manage to break out of the strictures of picturing the source of a sound, our visual perception is replaced with new images, akin to Emmerson's descriptions above, as if the absence of a visual stimulus to correspond to the aural stimulus of unseen sound necessitates the invention of new visuals. This speaks to our own capacity to create associations even where the original ones are obscured, akin to Derrida's assertion that we can never truly reach expression because of the never-ending chain of indications. It seems that many acousmatic composers have developed viewpoints acknowledging the challenges that the concept of the unseen sound represents, seeking newer and less stringent frameworks for composition than Schaeffer's vision of reduced listening.

Denis Smalley remains singularly influential as a scholar and theorist in the development of acousmatic ideas after Schaeffer. Smalley's work as a theorist, writer, and composer expands Schaeffer's ideas and modernizes acousmatic praxis. Smalley's most influential concept is spectromorphology, which is concerned with the ways that sound and timbre change over time.⁴⁹

⁴⁷ Truax, 135.

⁴⁸ Ibid.

⁴⁹ Smalley, "Spectromorphology," 107.
This idea is an evolution of Schaeffer's ideas of the acousmatic, which focus more resolutely on the sonic characteristics that comprise the sound object. The emphasis in spectromorphology moves away from the idea of unseen sound as a starting place, taking that for granted, and instead concerns itself with the ways that sounds morph and evolve spectrally. Another pertinent difference is Smalley's focus on spectromorphology as a tool for listening, rather than for composing. "Spectromorphology is not a compositional theory or method," he writes, "but a descriptive tool based on aural perception. It is intended to aid listening, and seeks to help explain what can be apprehended in over four decades of electroacoustic repertory."⁵⁰ Smalley does not intend his theories to be applied in the studios by the composers writing electronic music; instead, he emphasizes spectromorphology as a tool for listening and analysis from the perspective of the audience.

This change in focus from the composer to the listener makes sense given the massive evolution in the field of electronic music since Schaeffer's first formulations in the 1930's. Before Schaeffer began his experiments at *Radiodiffusion Française*, electronic music as a discipline was in its infancy, with only isolated instances of electronic instruments being invented and experiments conducted in disjunct and isolated circumstances. Even with many of these earlier developments, the concept of an electronic music using ordinary recorded sounds was mostly unheard of.⁵¹ Hence, Schaeffer and his peers had the difficult task of inventing a new way of thinking about and using sound as musical material. By 1986, the year that Smalley first described spectromorphology, electroacoustic music as a field was well-established, with well-

⁵⁰ Smalley, "Spectromorphology," 107.

⁵¹ One of the most famous examples of an early electronic music instrument is the theremin, which was primarily used to play transcriptions of older classical pieces, operating as a novel substitute for a violin or voice rather than the basis for a completely original musical practice.

known institutions such as the *Groupe de recherches musicales* (GRM) and the *Institut de recherche et coordination acoustique/musique* (IRCAM) having been established and facilitating research into electronic music technology and techniques for years. Therefore, a need emerged for both composers and listeners to develop new ways to understand this sound- and timbre-based music. The growth in the number of electroacoustic music creators also resulted in the creation of a new type of audience; the composers who studied to make this music became highly informed, technically savvy listeners.

Spectromorphology became a cornerstone of Smalley's electronic music practice and a hugely influential idea in the creation and analysis of acousmatic music. While Smalley acknowledges that his ideas can be applicable to many kinds of music, he specifies that spectromorphology is primarily involved with music that involves a significant loudspeaker component whose sound sources are largely or entirely visually absent; i.e., acousmatic music.⁵² Smalley still emphasizes the absence of a visual source for the given sounds in his conception of what is acousmatic, but only after specifying the importance of spectral concerns first. This shift from Schaeffer's ordering reflects that Smalley no longer must find the timbral heart of the acousmatic as Schaeffer did through the process of first abstracting the sound from its source, since this is assumed as the first step in spectromorphological analysis. The *époché* is not the revelation for Smalley that it was for Schaeffer; rather, Smalley's developments reflect an assumption that the listener or composer has already arrived at the sound object in order to focus on the internal world of the sound.

This is because spectromorphology is intended to focus the listener's ear toward these intrinsic elements of a piece. These internal characteristics are made apparent by reduced

⁵² Smalley, "Spectromorphology," 109.

listening without contextualizing the sounds or referring to outside sources, signs, or expressions. Like Emmerson, Smalley makes it clear that even acousmatic music is not without extrinsic connections; even through spectromorphology examines the intrinsic qualities of a piece of music, Smalley acknowledges sounds do not exist in a vacuum. He describes a complex intrinsic-extrinsic connection with shifting understandings of the musical content depending upon the listener's frame of mind and mode of listening, the type of musical material present, and the context that the composer constructs around or with a given sound.⁵³ Not only does he suggest that an understanding of extrinsic connections in music is a good thing, but Smalley also goes further, outright stating that reduced listening is "as dangerous as it is useful."⁵⁴ This is because the exclusion of all external connections in a piece of electronic music will also throw out any intentional indications made by the composer, eliminating crucial intertextual information that is present in the piece. Additionally, too zealous a concentration on the subtle intrinsic features of sound can lead listeners astray, focusing them on background details or otherwise relatively unimportant minutiae to the detriment of understanding the entire piece more clearly.⁵⁵ This is a meaningful departure from Schaeffer's understanding of the acousmatic, which emphasized reduced listening as the most important mode of listening to understand his *musique concrète.*

Even more divergent is Smalley's assertion that live instruments can be a significant component of acousmatic music, even if he distinguishes it as its own subcategory of music, writing that "what is and is not acousmatic is not clear-cut, since even music where live performers are involved can become acousmatic when the listener cannot connect the sounds

⁵³ Smalley, "Spectromorphology," 110.

⁵⁴ Ibid.

⁵⁵ Ibid., 111.

heard with the observed physical activity which supposedly produces them. This can happen in live electronic music performance, and is a category of music I call *live acousmatic music*.^{,,56} Here we seemingly already have a significant and profound admission by one of the genre's leading proponents and theorists that mixed music, as I have called it, can be included in the genre in its own way. Even more perplexingly, Smalley continues to emphasize the importance of the disconnect between the sound and its source, *even when the source of the sound is directly in front of the listener*. This insistence on tying conceptions of invisible sound to acousmatic listening is made even clearer in his article when he discusses the validity of a spectromorphological approach in analyzing and listening to complex timbre-oriented acoustic works by composers such as Saariaho, Grisey, and Xenakis. He stops short of calling these composers acousmatic, instead orienting them as composers who treat acoustic ensembles as spectral conglomerations where individual instruments are subsumed into a massive and indistinct timbral whole.⁵⁷

Just as Smalley has seemingly solved the problem of mixed music by including it under the acousmatic framework, he simultaneously creates a new conundrum. Spectromorphology was developed to describe the aural characteristics which are at the center of acousmatic practice, principally the spectral features of timbre, texture, intensity, and frequency content. Even as Smalley emphasizes these characteristics, however, he also reaffirms the significance of invisible sound in the conception of what counts as acousmatic and what does not. Live instrumental or vocal music can be acousmatic only if it both contains a significant electronic component and if the listener cannot directly connect the sounds of the piece with a visual

⁵⁶ Smalley, "Spectromorphology,"109.

⁵⁷ Ibid.

source. Both must be true for an acoustic instrument to be involved in acousmatic music, he argues; if there is no electronic sound, then the music falls in the same category as acoustic works by Xenakis and Saariaho, which are concerned with similar musical characteristics as acousmatic music but lack the ever-critical Schaefferian veil.

Smalley's ideas are both informed and borne out by decades of research and composition of acousmatic music, directly and inextricably linking the spectromorphological and the acousmatic. Smalley presents us with an obstinate insistence on the importance of invisibility in acousmatic sound, even as he emphasizes the latent musical characteristics of the genre.

For a slightly more contemporary example, Adrian Moore's *Sonic Art*, published in 2016, examines the tools, techniques, and practices developed at the University of Sheffield for the production and understanding of electroacoustic music. Moore, a composer working today, speaks about acousmatic composition in concrete terms, as he is mostly concerned with the processes of creating electronic music and the ways that composers work with their materials to yield interesting results. This is not to say that he has no concern for the philosophical, as a later chapter in his book is dedicated to philosophical questions of meaning and the phenomenological roots of the acousmatic discipline. However, the book's primary function is not as a piece of music scholarship, but as a pedagogical tool to help students interested in producing acousmatic music learn the techniques, ideas, and conceptual framings necessary to advance their own compositional capabilities.⁵⁸ It is no surprise, then, that the first mention of acousmatic music is focused on the practice of it. He states, "Acousmatic composition begins with source material that is processed and reflected upon. The acousmatic stance asks that you listen to your sound in

⁵⁸ Moore, Adrian. *Sonic Art: An Introduction to Electroacoustic Music Composition*. New York, NY ; Abingdon, Oxon: Routledge, 2016, xv.

terms of raw qualities of energy, direction, colour, density, and texture (amongst other attributes)."⁵⁹ Here, he skips the question of the invisibility of the sound and moves straight into aural characteristics, akin to those we already saw in Smalley. While we could make the argument that its absence means that the invisibility of the sound is unimportant to Moore's conception of acousmatic sound, that would be making a premature assumption. A lecture given by Moore in 2017 at Sheffield University defines the acousmatic as "a listening stance that favors sound over sight", still emphasizing its unseen nature.⁶⁰

While it would be incorrect to assert that a lack of mention of hidden sound in Moore's *Sonic Art* indicates that he does not think it is important, it is telling that several mentions of reduced listening and acousmatic process, including a detailed discussion of phenomenology later in the book, fail to mention the idea that acousmatic music is hidden at all. This tells us that Moore's view of what is useful pedagogically about the acousmatic stance is focused on the perceptual differences that it creates in the analysis of a sound's meaningful characteristics beyond the sounding object that it indicates and that the hidden quality of acousmatic sound is secondary at best. Towards the end of his book, Moore names a problem we encountered in the last chapter, where attempts to analyze a sound object will inevitably point us to things outside of it. He acknowledges that the very process of intently listening to a sound inevitably breaks us out of the phenomenological bracket despite our best efforts, making true reduced listening impossible.⁶¹

⁵⁹ Moore, Sonic Art, 4.

⁶⁰ Moore, Adrian, Sounds in the Dark: the art of the acousmatic," 2017, <u>https://www.youtube.com/watch?v=s1S7rbPhvdw</u>

⁶¹ Moore, Sonic Art, 170.

After examining these perspectives, we can see the challenge facing the modern scholar of acousmatic music. Many composers have deemphasized or rejected reduced listening as a part of their own practice when encountering the restrictions it offers, and contemporary aesthetic trends have rendered a conception of acousmatic music bereft of extrinsic connection obsolete. Despite this, most acousmatic composers continue to consider the metaphorical Pythagorean veil vital to their understanding of acousmatic composition and presentation. Even where it is deemphasized in favor of a closer focus on the importance of timbre, unseen sound continues to loom over this post-Schaefferian acousmatic world. The idea that unseen sound is definitionally vital to any conception of acousmatic music is fundamentally flawed since reduced listening and the *époché* are regarded with relative ambivalence among experienced composers of the genre.

Given this perspective, the unseen aspect of acousmatic music is the least important element of it. The acousmatic composers examined above maintain the unseen because it fits their technical and aesthetic practices, and to challenge it seems almost paradoxical in the face of the term's origin as a way of describing music. Therefore, we can look at the word "acousmatic" anew and define it differently than it was before. We can now regard acousmatic sound not as veiled or hidden sound, but sound which is meant to be listened to. This acousmatic method places no emphasis on sight or the lack thereof. Instead, this praxis of acousmatic music emphasizes the qualities of the sound and the things artists, composers, and listeners do with that sound. In this context, it means that we can emphasize the importance of the sound itself and the possibilities of regarding the entirety of sound as our musical sandbox. This recenters the praxis of acousmatic music around the auditory and fulfills Schaeffer's project in a more focused and meaningful way than an emphasis on unseen sound. This is meaningfully, if subtly, different

than previous definitions of the acousmatic and is closer to Moore's emphasis on the sound and what we can do with it.

Chapter 5

How to Do Things with Music: J.L. Austin, Andrew Chung, and Reconciling the Acousmatic

If Schaeffer's conception of the *époché* is a flawed method to build the aesthetic and philosophical foundation of acousmatic music upon, it is necessary to integrate another perspective, also with connections to phenomenology, to formulate a more complete praxis. To fully refocus our definition, an examination of ordinary language philosophy and the work of J.L. Austin and Ludwig Wittgenstein is necessary. Particularly relevant is music theorist Andrew Chung's perspective applying their ideas to a new conception of musical meaning that reaches beyond simple signifier relationships to reflect our complex relationship with sonic art.

As Chung states, Austin describes his own philosophy as "linguistic phenomenology," which examines our existence or mode of being when confronted with signifiers and language.⁶² This is closer to Heidegger's assertions of *Dasein* and the ways that phenomena exist truly in the context of their being than it is to Husserl's *époché* which requires the "annihilation of the world" in order to remove phenomena from their context to find an objective truth about them. The principal work of Austin's from which Chung, and therefore also I, pull are his 1955 lectures *How to Do Things with Words*, which describe his theory of "performative utterance."

To illustrate the concept of a performative utterance, Austin gives several clear examples of sentences that, when spoken or written, do not merely serve as indicators or signs, pointing to something else, but they also serve as actions in and of themselves. The actions listed are ones such as "I do," "I name this ship," "I give and bequeath," and "I bet."⁶³ In speaking any of these phrases, the speaker not only communicates an intention of doing a specific thing, but they also

⁶² Chung, Music as Performative Utterance, 15

⁶³ Austin, J. L. How to Do Things with Words. 2. ed. Oxford: Clarendon Press, 2011, 5.

simultaneously do the indicated action. These are therefore signifiers that have a function beyond their signification; they change the reality of the world in which they are uttered as any action would. However, Austin's analysis does not only stop at a conception of performative utterance that is so clear-cut. To Austin, all use of language, every utterance, also does something. As Chung puts it, "Challenging the dichotomy between saying things and doing things with language, Austin demonstrates that saying something always already counts as doing at least one thing with signs, and, almost always, it counts as the doing of many other things, too."⁶⁴ This is a shift in perspective on the use of signs as communicative tools alone, reflecting the efficacy of language to have real effects on the world around it. This challenges the notion of indication and expression in Husserlian phenomenology by asserting that expression arrives through indication by acting upon the world around it, aligning with Heidegger. This also presents a potential answer to the problem of Derrida's *différance*. Performative utterance manages to slip through the infinite loop of signifiers, finally reaching expression by escaping into the world. We can find meaning in an utterance through the ways that it affects or changes reality.

Chung applies these ideas to music by recentering our understanding of musical meaning and the ways that music functions by centering it on the things that it accomplishes and the actions that it takes. As Chung states, "the basic unit of sense when it comes to musical meaning consists in: the *actions* that music, considered as utterance, *performs* within its contexts of occurrence. It argues against the putative dichotomy that would draw a firm opposition between music's effects and its meanings" ⁶⁵ This is an argument against an oppositional relationship between internal musical characteristics, such as pitch and timbre, and external indications, such

⁶⁴ Chung, Music as Performative Utterance, 7

⁶⁵ Ibid., 8.

as extramusical associations. Instead, we can inherit both intrinsic and extrinsic characteristics and understand them together through the perspective of the actions that that music takes. He illustrates this point further, saying "musical meaning is best understood not as a matter of how musical structures, objects, or processes represent, refer to, or otherwise map onto, either extramusical or music-internal correlates. It is better understood as a matter of how music, as something we can interpret, is used to generate effects and to perform meaningful actions with meaningful consequences." ⁶⁶ Put another way, we can decenter the idea of music as sign alone, putting our understanding of the semiotic indicative capacity of music alongside what the music itself is doing.

Music as utterance requires us to consider the fundamental actions that a composer is taking when they work with recorded sound. Schaeffer would argue that the most important quality of the music is the "music-internal correlates," to use Chung's phrasing, the internal ways that the sounds relate to one another and the spectromorphological characteristics of those sounds. Others would argue that the sounds contained within a piece of fixed media are indicatively rich; in this genre, composers can conjure associations with an essentially infinite number of extra-musical objects and ideas because of the human capacity for source bonding. Music as utterance takes a step back, simultaneously considering the signifying capacity of musical signs as well as the intrinsic spectromorphological qualities to consider what the composer is actually doing with those sounds. Since these ideas are both present in the listener's understanding, they are working together to take a concrete action on the listener's perception. These sounds can immerse, subvert, perplex, amuse, horrify, intimidate, and enrapture the listener. Understanding the actions that music takes, and the ways that it takes those actions, is a

⁶⁶ Chung, Music as Performative Utterance, 9-10.

significant and powerful axis on which to understand musical meaning, since it considers more completely the sum total of the extrinsic and intrinsic qualities of those sounds in the ways that composers actually engage with their own material.

This has interesting implications for our analysis of Schaeffer's conceptions of the acousmatic. By engaging in the phenomenological process of bracketing, Schaeffer's reduced listening attempts to escape the totality of the sign, removing it as the primary consideration when listening to a sound and instead find the qualities of the sound itself or what the sound is doing. However, as we've seen, the *époché* is a flawed approach, and reduced listening is a difficult frame of reference to exist within, pulled as it is by the tensions of constant indicative pressure. Additionally, Schaeffer's reduced listening only gives as a partial understanding of the actions a sound is taken when perceived by a listener. The context of the world around a sound is crucial to the actual effects of the sound and ignoring this fact blinds the reduced listener to these facets of its actions. For example, the sound of a train whistle warns a listener of a coming train and demands attention and action from the listener. These are two actions that can only be understood in their context as the sounds exist in the world, and reduced listening would rob the listener of the indicative power of these actions. Not only is the raison d'être behind the train's sound the warning that it provides, a fundamental and inescapable facet of its actions on the world is the call to action it is announcing by sounding in the first place. We can only understand the actions that a sound takes by understanding the world in which it exists.

We can analyze and interpret a sound without bracketing it away. Acousmatic thinking is transformed if we no longer bury ourselves in reduced listening to begin with, considering a sound's shape, color, and texture within its worldly context, using that to inform us about all the possibilities of that sound, both intrinsic and extrinsic. Using the earlier example of the horse, I

can listen to the sound of galloping and come to understand that it's a dull, rhythmic sound with a particular speed and intensity without needing to ignore or bracket away observations about the what the horse is galloping on, how fast it is moving, or that it is, in fact, a horse. I can make these observations because of the sound's intrinsic qualities. Understanding the totality of the sound can give me a more accurate and detailed picture than reduced listening alone will do. What's more, I can understand what I should hope to communicate through the use of that sound. I can do many things with the galloping sound; I can use it to create a sense of travel or to conjure an atmosphere. I can use the sound of the horse to create a feeling of danger or adventure and excitement. Analyzing the sound this way, with a fundamental emphasis on action, brings me to an understanding of the sound's intrinsic qualities in the same way that reduced listening does, but with a clearer sense of perspective. This solves the challenge that Smalley enumerated earlier, where reduced listening can damage our understanding of the extrinsic qualities of a sound object and simultaneously alter our perspective to focus on background details rather than foregrounded musical elements.

This is, in fact, a technique that many electroacoustic and acousmatic composers already use, evidenced by the ubiquity of easily identifiable sounds used for their extrinsic qualities in their music. Emmerson, Windsor, Smalley, and Moore all identify the importance of understanding a sound's extrinsic characteristics in their work but maintain some reference to the importance of the *époché* and reduced listening as a tool to various degrees. The difference is that, instead of relying on reduced listening to find the sound's intrinsic spectromorphological characteristics as distinct from an understanding of the source, this framing considers the totality of the sound's identity and embraces an intertextual understanding of the sound and what it does.

By ignoring reduced listening as a conceptual frame, one understands the meaning of a

sound without the artificial effort of the *époché*. This is fundamentally what acousmatic composers can learn from Austin's ideas of performative utterance, and how the actions that sound performs are the most significant aspect of its meaning. This is following both Austin and Wittgenstein, whose idea of "meaning-as-use" is germane here. Chung's analysis of these thinkers solidifies that, for them, meaning is derived not from only from indications and signifiers, but from "the uses, effects, and actions that utterances— including, but extending beyond, language— are recruited to perform."⁶⁷ This is not, notably, a rejection of the presence and importance of a semiotic understanding of meaning, but a broadening of the perspective of meaning to encompass more than semiotic analysis provides alone.

Meaning-as-use, then, can supersede Schaeffer's understanding of the phenomenology of sound as distinct objects and approach sound as a complex intertextual web of actions and effects in addition to the semiotic richness provided by the evocative nature of sonic experience. The question we approach now is one of classification; it is important to ask if this new framing of aural understanding is too significant a departure from our acousmatic paradigm to retain that name. An electronic music conception of meaning-as-use represents a shift that could decenter the acousmatic experience to such a degree as to become a distinct approach.

While this framing is notably different in conception, it still tackles the heart of the acousmatic question. Fundamentally, it is important to remember that Schaeffer's reduced listening is not the end goal of his praxis. Rather, it is the beginning of his process to create and describe what was, at the time, a new way of composing. Acousmatic listening, bracketing, and the emphasis on the Pythagorean curtain are all, for Schaeffer, a means to an end, the method through which he arrived at and describes *musique concrète*. This is evident because of the

⁶⁷ Chung, *Music as Performative Utterance*, 43.

placement of the chapter where Schaeffer describes acousmatic sound in his *Treatise* at the very end of Book 1, titled "Making Music." A quote from the end of this chapter illustrates this fact; "That is what acousmatics proposes: turning our backs on the instrument and musical conditioning, and *placing sound and its musical potential squarely before us.*"⁶⁸ Schaeffer's entire purpose for a praxis of acousmatic music was to find the musical potential of the sounds he heard. All of the philosophy and abstraction of the conception of modes of listening was ultimately justified as finding new ways to use and understanding the musical potential of otherwise under-explored sounds in music. Thus, this new understanding informed by the philosophies of J.L. Austin and use-as-meaning is a natural extension of the acousmatic project. By focusing on not only the internal qualities of a sound, but also the things that the sound is doing and how we can use it, we are fulfilling the central goal of acousmatic music and making music that considers timbre and gesture crucial axes of musical thinking.

Schaeffer's approach assisted with the creation of a praxis centered around the qualities of any sound and the ways that composers use these qualities to make art. To Schaeffer and many acousmatic composers, the things that the sounds we use do and the things that we do with those sounds are what continue to make acousmatic music a compelling and meaningful genre in the world of music composition. Schaeffer's goal of a music that uses recorded sound has blossomed into a practice that deeply considers the internal world of every sound and finds the ways that those sounds can be made into music by composers and sound artists. Given the novelty of the recording technologies that Schaeffer was using, the world's understanding of sound and music was rapidly changing. It is natural that Schaeffer spent his life grappling with

⁶⁸ Schaeffer, *Treatise*, 69.

the questions posed by the practice of *musique concrète*, as it represented a profound shift in the way that musicians consider sound significant in the history of music.

This also explains the focus on the unseen aspect of his early conceptions of unseen sound, given the relative novelty of unseen sound as a facet of musical understanding. To Schaeffer, the invisibility of the sound represented a new horizon inextricably linked to the intrinsic spectromorphological characteristics centered by *musique concrète*. However, unseen sound is not the novelty now that it was for Schaeffer, and our understanding of source bonding and the extrinsic qualities of acousmatic sound has evolved since. It is no longer necessary to center unseen sound in our conception of acousmatic music, allowing for a deeper understanding of the genre and more stylistic diversity and artistic possibility within it.

Recalling the new definition of acousmatic sound as "sound which is meant to be listened to," the focus of acousmatic practice can now be thought to revolve around the totality of what a sound is doing, rather than only the internal world of the sound object. In this case, we see any reference to the unseen quality of the sound to be superfluous or a reference to the developmental history of acousmatic music. Given the multitude of non-acousmatic electronic music that is produced for loudspeakers or headphones alone in the modern era, the unseen quality of acousmatic sound is not as remarkably important as it once was. Now, any electronic music that considers the spectromorphological axis is meaningfully acousmatic, even if its sources are obvious to the listener or even visible.

Chapter 6

Utterances and Gestalt Formal Concerns

Utterances adopts this new perspective by melding the spectromorphological perspectives of acousmatic aesthetics with ordinary language philosophy. Taking its name from Austin's performative utterances, this piece carefully considers what each movement is *doing* as a musical entity. It also illustrates what a conception of acousmatic music that centers a live performer can look like, influenced greatly by the framing of musical utterance and the intermovement connections that reflect a phenomenological construction of the self.

Utterances is a modular piece constructed in six movements for Pierrot ensemble. Three of the six movements, *Fear/Play*, *Love/Grief*, and *Rage/Remit* are designed to function as extractable standalone works for a one or two performers with interactive electronics, which I refer to as "pillar" movements. Two of the other movements, *Center/Welcome* and *Strive/Hope* are bridge pieces, designed to connect disparate movements or welcome the audience into the performance space. The final movement, *Connection I*, is a culmination of the previous movements, assembling material from each of them into a cohesive acoustic piece for the whole ensemble, including voice.

Utterances concerns itself with an acousmatic understanding of its sonic materials by emphasizing the importance of the totality of the sounds present in the pieces, which are largely produced by instruments and voices, either digitally transformed or performed by live performers. Unlike Smalley's earlier conception of a live acousmatic music that emphasizes sounds that have no easily discernable visible connection to their source, *Utterances* emphasizes the connections between the sounds and their performer. By using a detailed system of timbre tracking to trigger prerecorded fixed media gestures and textures created by manipulating

samples of the instruments being played, this piece creates an intentional connection between electronic media and sounding instrument and actively produces the illusion that the instrument is producing the electronic sounds itself. This illusion blurs the line between the instrument and the loudspeaker and makes it seem as if the instrument is creating an effect that is physically impossible. This emphasis on the electronic/acoustic connection, however, still fulfills the acousmatic mandate we've established. It does this by continuing to emphasize the intrinsic spectromorphological characteristics of the sounds to create complex textural and gestural sound-worlds that are timbrally oriented and computer assisted. Questions of a sound's source in this case become moot; the source of the sound is obviously the instrument in front the audience, and the sounds coming from the loudspeaker are also explicitly produced by the same instrument. However, this self-similar sound sourcing provides a rich context in which to understand the intrinsic sonic characteristics of the piece without necessitating the *époché* as a conceptual framework to achieve the sound object.

Utterances is thus acousmatic in the new sense of the word, interpreting the conception of an acousmatic music as the impetus for music focused on the color, shape, and texture of the sound and that emphasizes the sonic potential of the sound materials present in the piece. By emphasizing a specific utterance for each movement and enacting them through the performance of the piece, *Utterances* considers the totality of the sound's capacity both as raw material and as indicative signifier and channels these qualities to a specific, directed focus on the attempted actions of each utterance. The instrument will always be present in the perception of the listener, both in sound and sight. The fact that the instrument is seen does not challenge the acousmatic quality of the piece, because the sounds themselves are still constructed and considered with an acousmatic frame of reference.

Part of this results from the use of a wide array of sounds at the disposal of each musician in their respective pieces. By using numerous techniques and approaches to playing each instrument, I provide a sonic palette for each performer that is massive, representing a large timbral gamut from which to draw. This makes the axis upon which *Utterances* primarily revolves one of timbre and gesture, the same axis shared by acousmatic music for decades. While pitch and rhythm are still important elements at times, nothing approaching functional harmony is important to the construction of *Utterances* as a whole.

While the Husserlian idea of the *époché* might not be useful to achieve reduced listening in the context of this piece, the broad structure was directly inspired by it, with every movement serving as an initial attempt at bracketing a particular human action or emotional state. By centering each movement on a particular act, the goal was for each movement to serve as a musical utterance, an enactment of that idea or emotion through the creation and performance of the piece. This orientation enabled the use of the sound materials to craft the intended utterance. Emphasizing the framing of meaning-as-use gives the focus of each movement to the artistic effect it is trying to achieve. Approaching the piece from this perspective requires a deep contextual understanding of the sounds being considered, both for their intrinsic musical qualities and for their extrinsic indicative ones. This is important to the construction of *Utterances*, since each part is not only performing an action, but also indicating the idea connected to that action. In other words, each of these movements serves not only as a signifier of common human experiences such as love, grief, hope, rage, and fear, but also perform the actions as part of their musical existence and performance.

The conception of the *époché* is a useful one for understanding the framing of each movement as an individual utterance, and that framing carries into the structural considerations

that led to the creation of *Utterances* as a meta-work comprised of a cycle of extractable standalone pieces. Using the metaphor of bracketing, each of the pillar movements can be representative of their individual ideas alone and presented as a complete musical experience. *Love/Grief*, the penultimate movement, functions well as a piece for solo violin and live electronics without the need for the context of *Rage/Remit* before it or *Connection I* after it. While this independence isn't true of every movement, bracketing can still be thought to provide a useful framework for understanding both the musical content of each movement and the actions they are meant to convey or enact.

However, a problem emerges when attempting to apply this bracketing to the audience's perception of the individual movements, much as it does for reduced listening. I, as a composer, cannot suppose that my musical materials are a sufficient indication to the audience member of the action each movement intends to take alone. Given the inherent subjectivity of musical experience, each audience member will carry their own associations and understandings of the sounds and gestures present and interpret them independently of the intentions of the composer or performers. While music has the power to indicate and signify, it does not have the kind of semiotic precision that a language would have. Music as an abstract art form is not effective at directly signifying explicit ideas and new information the way that a book or a speech would. This is why composers, when presenting their music, have long relied upon titles and program notes to focus the listener's perceptions and give specific meaning and direction to their musical experience. Without a title to indicate the extramusical associations I wish to drive between my musical material and the utterances they are designed to enact, it is easy to consider the connections arbitrary or unimportant to the listener.

A more significant flaw is revealed when the titles of the various movements are

swapped. It is reasonable to expect the listener to associate the materials of any movement with the signifier in front of them, making it seem like the difference between *Love/Grief* and *Rage/Remit* to be arbitrary if we can drive different associations by changing the titles of those movements. However, this makes sense for numerous reasons; external indications such as titles and program notes are powerful and precise tools to guide musical perception, which is one reason some composers use them in the first place. It would be natural, then, that an audience member's perceptions would change if the titles changed, since they'd be subjected to the indicative pressure of language in a way that would change their understanding. If I removed these signifiers altogether and presented the work without titles, the audience member would make their own associations and connections that may or may not align with my understanding of the musical utterances present. This also reflects the imprecision of music as an indicative tool, as discussed before, and reinforces the position that music doesn't function with the same kind of precision of mapped meanings that language does.

This imprecision also makes sense when we recall the criticisms of the *époché* enumerated previously. The *époché* is a difficult task precisely because things, even abstract concepts such as love, do not exist in a Husserlian vacuum. Instead, all the abstract utterances used in this composition are inextricably linked in meaningful ways. Just as each individual movement is a comment on the connection between two ideas, so is the piece in gestalt a reflection on the connections between many facets of human existence and the ways that human emotions and actions are often complex and difficult to isolate. It is not only natural that someone might make cross associations between seemingly disparate movements of *Utterances*, but it is also the crux of the piece and the observation at the heart of my own understanding of human experience. Much like Heidegger's conception of *Dasein* for a given phenomenon, we

cannot understand any human action or emotional state in complete isolation from any other, since people exist as complex interconnected beings in a world that impacts them.

Thus, *Utterances* performs a kind of Heideggerian phenomenology by examining and performing several kinds of actions that are fundamental to the experience of being a human in the world. It is also inherently autobiographical since my own understanding of humanity is inherently constructed from my individual experiences. This makes this piece a kind of phenomenological assembling of the self, a deconstruction and reconstruction of my own experiences and beliefs given musical form and enacted over time by performers and interactive electronics. *Connection I* highlights this notion, linking together the musical materials and utterances of the previous movements into a movement that is reflective of how I have come to view myself as a person, an artist, and a member of a musical community.

Chapter 7

Movements 1-5 and Their Function as Utterances

The composition of each movement of Utterances serves as a kind of examination of my understanding of human experiences and actions. To construct a cogent musical experience that gives form to these utterances requires a deeper understanding of the ideas they signify.

The prelude, "Center/Welcome," is designed to both welcome audience members into the performance space and center their attention on the performers and the sounds of the instruments present in the space. To achieve this, "Center/Welcome" is a nonlinear movement comprised entirely of natural harmonics for the cello and violin. These harmonics evoke a meditative atmosphere by creating a still, clear texture augmented and sustained using live electronics. This movement is of indeterminate duration, designed to start before the concert begins as the audience enters the space and continues for several minutes after the doors are closed.

The prelude serves as a bridge movement, one which is designed to connect the audience from the outside world into the contained space of the concert hall. By being non-linear yet containing self-similar material, this movement exists as a static, quasi-minimalist way to encourage a meditative state and center the audience into a mode of deep and reflective listening. The most direct inspiration for "Center/Welcome" comes from the static intermezzos in Hans Abrahamsen's *Schnee*, which serve as transitions between strict canonical movements and provide the opportunity for instruments to retune into microtonal scordatura in a diegetic musical way. Figure 1 illustrates this intermezzo's still, sparse texture of sustained sounds that serve as a bridge between canon 2a and 2b. Similarly, my own prelude movement consists of sustained harmonic sounds that provide a suspended, placid aural space that fosters focus and reflection.

Intermezzo 1

(detuning Vn., Va., Vc., Fl. contr., Cor. ing. and Cl. bas. 1/6 tone down)



Figure 1: Schnee Intermezzo 1

As is shown in figure 2, the harmonics are presented to the performers in a non-linear web, allowing the performer the agency to move between harmonics freely, creating a sustained aleatoric harmonic web for the entire duration of the movement. These harmonics continue until after the doors are closed and the audience seated, after which the texture fades into the opening gestures of the first pillar movement.

The second movement is a duet between the flautist and the clarinetist titled *Fear/Play*. It is designed to focus on the inherent ways that play is a common human experience that can serve as a space to explore negative emotions in a controlled environment. It is not a coincidence that the act of performing music is called "playing," and music is often used as an artistic canvas to explore a wide range of negative emotions in a constructive and meaningful way.



Figure 2: Utterances; Prelude Center/Welcome- Violin



Figure 3: *Fear/Play* mm. 4-6

There is ample research to conclude that play is a vital part of childhood development in virtually every culture throughout history, and play is a meaningful and important way to develop social skills, cognitive function, physical prowess, and emotional intelligence. Additionally, play is an avenue for children to explore difficult emotions and transform painful experiences into moments of growth and understanding. As Haight et al. state, "Pretend play offers children a safe outlet to express negative emotions, including those they might not ordinarily express."⁶⁹ This idea provides the impetus to connect fear and play as actions in this movement. Because fear is also a common and powerful experience for all people, it is natural to use play as a space to explore frightening situations or emotions and find the places that fear can lead to. This movement is hence structured like a series of games between the flute and the clarinet with varying rules and levels of intensity. The first example of a type of game seen in *Fear/Play* is a type of interruption game, with one performer repeating a phrase or gesture until their partner interrupts their playing aggressively. Seen in figure 3, the clarinet harshly cuts off the bass flute's repeated gesture, taking over with its own aggressive improvisation.

This is an example of the concept of exploring negative emotions through a playful environment, where aggression and expressions of fear may be enacted in a positive and meaningfully constructive way.

Another example of play within this movement comes in the form of two races, in which each performer attempts to accurately play a fast passage as quickly as possible to arrive at the end of the phrase before their partner. The first of these races can be seen in figure 4. In each

⁶⁹ Haight, W., Black, J., Ostler, T., and Sheridan, K., "Pretend Play and Emotion Learning in Traumatized Mothers and Children." In *Play = Learning: How Play Motivates and Enhances Children's Cognitive and Social-emotional Growth*, D.G. Singer, R.M. Golinkoff, and K. Hirsh-Pasek (eds.). Oxford University Press, 2006, 210.

instance the "winner" of the race improvises first in the following passage, giving each player a direct incentive and goal when racing to the end of the measure.



Figure 4: Fear/Play mm. 35

These examples of games illustrate bringing conceptions of play directly into the structure of the music and allowing the performers to literally "play" in the context of the musical structure. Additionally, the ample opportunities in the piece for free improvisation offer the performers the ability and incentive to play freely, performing with a large degree of agency and control over the musical texture in a way that mimics the bounded freedom of a child's pretend play. Figure 5 illustrates the guided free improvisation at the end of the piece, letting the performers explore aggressive and "cruel" emotional spaces openly.



Improvise to end, gradually getting more active (ca. 30"-1')

Figure 5: Fear/Play mm. 84-87

Following *Fear/Play* is the second bridge movement, which serves simultaneously as connective tissue and as a musical palate cleanser between two challenging and intense pillar

movements. "Strive/Hope" for piano and electronics, mitigates some of the hostile energy of the end of the previous movement and works to point forward, yearning for more positive and empowering emotional spaces. Much like the prelude, this movement is comprised of a series of webs of non-linear gestures performed in a limited aleatoric environment. Unlike the prelude, however, this movement is comprised of multiple webs performed linearly, giving "Strive/Hope" a trajectory that the first movement lacks. Additionally, most of the gestures in this movement are designed to carry the energy of the piece forward, with crescendos and ascending gestures attempting to "strive" towards the next movement, reaching towards a new space. As seen in figure 6, these are directional gestures that give this movement shape and momentum, reflecting a conception of striving and hope that emphasize their forward-looking characteristics.



Figure 6: "Strive/Hope" Web 3

"Strive/Hope" is ultimately moving towards the second pillar movement, *Rage/Remit*. This solo percussion movement with live electronics is an enactment of anger and forgiveness rolled into a single musical entity. This combination might seem to be one of strict contrast, but anger and forgiveness are, in reality, two aspects of the human attempt to deal with suffering. Buddhist author Thích Nhất Hạnh directly links anger to suffering, positing that someone who is full of anger suffers deeply.⁷⁰ Forgiveness, similarly, is the attempt to relieve suffering, to acknowledge harm and move past it. Anger is a necessary prerequisite for forgiveness, the balancing negative energy that gives forgiveness meaning and allows it to heal negative or harmful experiences.



Figure 7: Rage/Remit mm. 1-7

Rage/Remit is my own attempt to move past trauma, loss, and harm to reach a place of healing and cathartic release. This movement's materials are found in contrasting textural elements of playing the various drums in intense, directional gestures and the more static textures of rubbing, scraping, and resonating the drums with paper, marbles, pinecones, and superball mallets. The opening section of the piece represents formless, unmeasured rage, here realized in quasi-improvisatory percussion gestures without specified meter or tempo. As can be seen in

⁷⁰ Nhất Hạnh, Thich, Anger: Wisdom for Cooling the Flames, New York: Riverhead Books, 2001, 3.

figure 7, these gestures are often explosive and volatile with a mercurial and unpredictable quality. The imprecise temporal arrangement of this section intentionally allows the performer an extreme degree of agency over the flow and pacing of each gesture, and the constant motion communicates the restless energy that rage often entails.

The following section crystalizes the energy of the opening, providing greater direction and intent. By establishing a clear and omnipresent groove that is transformed, distorted, and disrupted, the performer is channeling the titular rage into something more directed and focused. This is designed to show rage with intention, utilized towards concrete action and forward motion. We can see this regular and channeled intensity in figure 8.



Figure 8: Rage/Remit mm. 86-90

The capacity to remit is found after this intension section, with another meterless section following the well-established groove-oriented climax of the piece. In figure 9, the percussionist's gestures lack the urgency of direction that they did before, and the textures of the piece become notably softer and less articulate.



Figure 9: Rage/Remit mm. 151-153

While accented and violent directional phrases previously dominated, there are now more amorphous and receding textures centered around circular motions and the scraping of various implements on the bass drum. This is a change in intention that channels the energy of the first two-thirds of the piece into a more subtle kind of energy, reflecting the ways that the piece has transformed active hostility into forgiveness and peace.

Directly following Rage/Remit is Love/Grief, the movement for solo violin and live electronics. This movement is one of the most direct action-oriented ones in Utterances conceptually; it is directly inspired by two important figures in my life who have a massive impact on my understanding of love and grief as actions. The first is my fiancée, Anna, to whom I became engaged while writing the piece. This piece attempts to capture the action of loving her and give it musical shape and form. The second person who inspired this piece is my great-aunt Vernie Shelnutt, who passed away not long before I began Utterances as a project. I find echoes of my own experiences mourning her in the writings of Chimamanda Ngozi Adichie, who expresses a direct connection between the depth of the pain of losing her father with her love for him. She writes, "Because I loved my father so much, so fiercely, so tenderly, I always, at the back of my mind, feared this day."⁷¹ Here we see an explicit and vivid connection between the pain of grief and loss and the intensity of love. Similarly, bell hooks writes "Contemplating death has always been a subject that leads me back to love."⁷² The connection between love and grief is obvious and powerful, and these conceptions were at the forefront of my understanding while composing Love/Grief.

To enact my conceptions of love and grief, I started with a simple melodic figure that was

⁷¹ Adichie, Chimamanda Ngozi, *Notes on Grief,* New York: Alfred A. Knopf, 2021, 17.

⁷² hooks, bell, All about Love: New Visions, New York: William Morrow, 2000, xxii.

designed to be an internal representation of love. As can be seen in figure 10, it is a simple and straightforward melodic idea in G major, comprised of few notes and uncomplicated rhythms.



Figure 10: *Love/Grief* melody

This melodic idea is treated akin to an *Urlinie*, serving primarily as a deep structural element hidden behind layers of obfuscating ornamentation and timbral/gestural material. This obfuscation, functioning like a metaphorical veil, is gradually lifted as the piece progresses and the melodic idea becomes more audible until it is stated with relative clarity. As can be seen in figure 11, it is completely obscured near the beginning of the piece, occurring so slowly and beneath so many layers of active timbral transformations that it is completely imperceptible.



Figure 11: Love/Grief Systems 2-673

The displacement of octaves created by the use of natural harmonics, slow changes in bow speed and pressure, and elongation of the primary melodic idea render it a deep background feature of

⁷³ Love/Grief is a movement completely without barlines and is labeled by systems instead of bar numbers.

this section, present but not immediately audible. This serves as a metaphor for the ways that love can often feel obfuscated or imperceptible due to the pain of grief and loss. Here, the gritty timbral material and slow transformations do not erase the presence of love, but only make it temporarily more difficult to feel directly.

As the piece progresses, the melodic idea becomes more prominently understood, gradually unveiled by the development of the sound materials in the piece away from harsh or noise-focused sounds into clearer and more periodic sounds. Halfway through the piece, the melodic idea is much more meaningfully present, foregrounded, if still somewhat obscured by a plethora of textural and timbral variation as can be seen in figure 12.



Figure 12: Love/Grief Systems 17-19

Finally, system 24 in figure 13 presents the first clearly audible and foreground statement of the melodic idea in the accented sixteenth notes ornamented by the surrounding triplets.



Figure 13: Love/Grief System 24

This movement's trajectory represents a reclaiming of love; after the painful and often somber expressions of grief that define much of the beginning of the movement, this expression of love is comparatively triumphant and joyous. No longer is the "love" melody hidden or obscured by layers of pain and difficulty. Now, the melodic idea exists as a clear and foregrounded representation of positive emotional traits and the joys that love can bring. This movement is a centerpiece of *Utterances* as a whole, representing a focal point upon which the other movements revolve. Most of the other movements quote or are inspired by materials in this movement in some capacity, reflecting the interconnected nature of *Utterances* emphasis on the actions of human experience and the ways that the piece reflects human modes of being.

Chapter 8

Connection 1: Assembling the Self

The final movement of *Utterances* stands apart from the others in many ways. It is the only ensemble movement to include more than two people. It is also the only movement without electronics and the only movement to include voice. Most importantly, it is designed to coalesce all the musical materials and utterances experienced in the previous movements into a new construction, an assembling of the self.

Each utterance explored in the previous movements was selected because of their significance to my own understanding of human experience. In their totality, they represent the facets of human experience that I find to be the most meaningful and significant. While not all encompassing, these utterances are meaningfully inclusive of the prominent ways that people exist in the world and relate to one another. By combining their essences into a single musical movement, I'm effectively constructing a piece comprised of myself, the sum of crucial aspects of my identity as a composer, performer, collaborator, and community member.

This is reflected in the way that I worked to construct this piece, by seeking out collaborators with whom I have meaningful relationships or who represent significant figures in my own musical community. This piece is my attempt to connect with them, to meaningfully collaborate and celebrate my personal growth as a musican over the course of my entire academic career. Every facet of my collegiate career is represented through my collaborators. Jordan, my percussionist, has been my friend since we were both undergraduate students at Columbus State University. My flautist and clarinetist, Erin and Anne, are friends I met and worked with when I was a master's student at Bowling Green State University. I met Kourtney, Mia, and Alvin while studying at UNT. Each of these musicians are people who I admire, and

their presence in Utterances is palpable on every level.

Thus, *Connection I* is an utterance that coalesces these people important to me into a cohesive musical unit, connecting them with each other and with myself. This makes the final movement of this cycle work as a connection on multiple levels, bridging seemingly disparate musical materials and seemingly disparate people at the same time. This centers this construction of the self around my musical community, which reflects the importance that community has had on my development as a person and a musician.

Another important facet of my own musical practice is my newfound love for performing and connecting directly with others using my voice. By including voice, I incorporate a vital part of my own musical praxis as a performer and improviser, asserting my own physical sounding body into the piece and emphasizing its connection to the other members of the ensemble. In this instance, the voice does not function as a soloist or featured part; the voice is another instrument in the group, a non-hierarchical understanding of my musical role as a performer born from a desire to share equally in the experience of making music with my peers and friends. The voice itself does not sing an intelligible text, taking disparate phonemes from the phrase "Although, of course, you end up becoming yourself."⁷⁴ This is the title David Lipsky's biography of David Foster Wallace and is taken from a passage where Wallace was describing the innate human tendency to gravitate to a particular mode of being, sometimes despite our circumstances.

Connection I assembles and transforms ideas from each of the preceding movements, recontextualizing them and presenting them with new orchestrations and from new perspectives. Though not exhaustive, the following selected examples illustrate how material from each

⁷⁴ Lipsky, David, Although Of Course You End Up Becoming Yourself: A Road Trip with David Foster Wallace, Broadway Books. 2010.
movement is quoted, recontextualized, and transformed throughout the finale movement.

The opening of *Connection I* directly reinterprets the opening of *Love/Grief*, with its emphasis on slow transformations and soft noise evolving over time. Shown in figure 14, these materials are transformed into the use of airy sounds in the strings and winds becoming soft harmonics or gentle dyad multiphonics coupled with the paper sounds of *Rage/Remit*.



Figure 14: Connection I mm. 1-4

The races within *Fear/Play* return in this movement to emphasize the connection between the flute and percussion; an extended race sequence is featured between them to serve as the bridge between the second and third sections, as can be seen in figure 15.



Figure 15: Connection I, Flute and percussion mm. 33-36

This also adds energy and intensity as the movement shifts its focus from playful material to more aggressive, rage-inflected material.

Rage/Remit reappears in the climax of the movement as material from the middle section of the percussion movement is quoted and developed alongside aggressive, noisy string and voice improvisations (see figure 16).





The bridge movements appear at the very end of the movement, and thus the entire cycle. The string harmonics from the very beginning reappear, now written out as metered material underpinning a soft melodic duet in the winds that quotes the melody from *Love/Grief*. Also apparent in this section is the reappearance of a piano extended technique not heard since "Strive/Hope" in which the pianist performs harmonic glissandi trills, creating a rippling, cascading harmonic effect, as seen in figure 17.

The final moments of the piece recall *Love/Grief* again as the flute and voice play the first half of the melody in counterpoint with the clarinet playing the second half harmonized by the strings. This short chorale, shown in figure 18, dissolves into airy noise, recalling the beginning of the movement and the opening of *Love/Grief* before it.



Figure 18: Connection I mm. 105-114

This illustrates how Connection I fulfills its function as an utterance by connecting intrinsic musical ideas from each of the previous movements and illustrates their cohesion as a part of a larger musical whole, much how loving, grieving, raging, forgiving, striving, hoping, fearing, playing, centering, and welcoming are parts of my own identity as a musician.

Chapter 9

Conclusion

Given the significant influence that Pierre Schaeffer and acousmatic conceptions of music have had on the development of electronic music, it is natural that his most prominent ideas remain relevant to the modern composer of computer music in its various forms. It also seems inevitable that acousmatic music would eventually need to adopt a wider praxis to encompass the totality of composers making acousmatic music today, given how limited and narrow some of Schaeffer's ideas can be when composers attempt to apply them practically. The issues with Husserlian phenomenology observed by later philosophers are made manifest in the ways that composers and theorists like Simon Emmerson, Denis Smalley, and Luke Windsor stretch Schaeffer's conception of the acousmatic to account for these problems and describe modern electroacoustic music practice, which includes a wide array of technologies and approaches that would have been unfathomable to the first composers of musique concréte.

Applying the conception of musical utterances and meaning-as-use as derived from Austin, Wittgenstein, and Chung to electronic music represents a new perspective that extends acousmatic ideas, highlighting the elements of acousmatic praxis that are conceptually useful while expanding the definition of the term to be more musically inclusive. By emphasizing what the music is doing, or at least attempting to do, we can discern a great deal about its intrinsic and extrinsic qualities and come to a deep, contextual understanding of the sounds we use and the way that we use them.

Utterances is the conceptual realization of musical utterances as acousmatic praxis, emphasizing the ways that the music is used to produce meaningful effects and taking both the intrinsic musical and spectromorphological characteristics and the extrinsic indicative ones into

71

account simultaneously. This piece, and this conceptual project, represent an intentional emphasis on people and the connections that we make as musical communities as the center of musical practice. By emphasizing the connection between composer and performer, the acousmatic composer can approach a different kind of understanding of what is acousmatic. This new understanding welcomes disparate members of a musical community, centering them on a sonic perspective that is rich and valuable. Namely, an acousmatic understanding of sonic art that showcases the ways that sound provides a communal experience and illuminates how the perception of sounds can be a rewarding way to find renewed musical perspectives. By considering new conceptions of "acousmatic" and reframing it to be centered on the people making it, we can renew and clarify the purpose, potential, and relevance of acousmatic music to the modern musical era.

Bibliography

Adichie, Chimamanda Ngozi. Notes on Grief. First edition. New York: Alfred A. Knopf, 2021.

- Attali, Jacques. *Noise: The Political Economy of Music*. Theory and History of Literature, v. 16. Minneapolis: University of Minnesota Press, 1985.
- Austin, J. L. How to Do Things with Words. 2. ed. Oxford: Clarendon Press, 2011.
- Barrett, Natasha. "Spatio-Musical Composition Strategies." *Organised Sound* 7, no. 3 (December 2002): 313–23. https://doi.org/10.1017/S1355771802003114.
- Chion, Michel, and James A. Steintrager. *Sound: An Acoulogical Treatise*. Durham: Duke University Press, 2016.
- Chung, Andrew. "Music as Performative Utterance: Towards a Unified Theory of Musical Meaning with Applications in 20th-Century Works and Social Life." Yale University, 2019.
- Chung, Andrew J. "What Is Musical Meaning? Theorizing Music as Performative Utterance." *Music Theory Online* 25, no. 1 (May 2019). https://doi.org/10.30535/mto.25.1.2.
- Derrida, Jacques, and Leonard Lawlor. *Voice and Phenomenon: Introduction to the Problem of the Sign in Husserl's Phenomenology*. Northwestern University Studies in Phenomenology and Existential Philosophy. Evanston, Ill: Northwestern University Press, 2011.
- Derrida, Jacques, and Gayatri Chakravorty Spivak. *Of Grammatology*. Fortieth-Anniversary Edition. Baltimore: Johns Hopkins University Press, 2016.
- Emmerson, Simon. "Seeing (or Not Seeing) the Loudspeaker; Seeing (or Not Seeing) the Music." Académie Internationale de Musique Electroacoustique/Bourges VIII, no. Relationships between audition and vision in the creation in Electroacoustic music (2005 2004): 85–88.
 - ———, ed. *Music, Electronic Music, and Culture*. Burlington, Vermont: Ashgate Publishing Companies, 2000.
- Field, Ambrose, "Simulation and reality: the new sonic objects," Simon Emmerson (ed.), Music, Electronic Music, and Culture. Burlington, Vermont: Ashgate Publishing Companies, 2000, 36-42.
- Haight, W., Black, J., Ostler, T., and Sheridan, K., "Pretend Play and Emotion Learning in Traumatized Mothers and Children." In *Play = Learning: How Play Motivates and Enhances Children's Cognitive and Social-emotional Growth*, D.G. Singer, R.M. Golinkoff, and K. Hirsh-Pasek (eds.). Oxford University Press, 2006.

- Heidegger, Martin, John Macquarrie, and Edward S. Robinson. *Being and Time*. New York: HarperPerennial/Modern Thought, 2008.
- Herrmann, Mitchell. "Unsound Phenomenologies: Harrison, Schaeffer and the Sound Object." *Organised Sound* 20, no. 3 (December 2015): 300–307. https://doi.org/10.1017/S1355771815000229.
- hooks, bell. All about Love: New Visions. 1st ed. New York: William Morrow, 2000.
- Kane, Brian. Sound Unseen: Acousmatic Sound in Theory and Practice. New York, NY: Oxford University Press, 2014.
- Kim-Cohen, Seth. In the Blink of an Ear: Towards a Non-Cochlear Sonic Art. New York: Continuum, 2009.
- Landy, Leigh. *Understanding the Art of Sound Organization*. Cambridge, MA: The MIT Press, 2007.
- Lipsky, David. Although Of Course You End Up Becoming Yourself: A Road Trip with David Foster Wallace. Broadway Books. 2010.
- Manning, Peter. *Electronic and Computer Music*. 4th ed. New York: Oxford University Press, 2013.
- Monelle, Raymond. Linguistics and Semiotics in Music. London: Routledge, 2014.
- Moore, Adrian. Sonic Art: An Introduction to Electroacoustic Music Composition. New York, NY; Abingdon, Oxon: Routledge, 2016.
- ------. "Sounds in the Dark: the art of the acousmatic," 2017, https://www.youtube.com/watch?v=s1S7rbPhvdw
- Nhất Hạnh, Thich. Anger: Wisdom for Cooling the Flames. New York: Riverhead Books, 2001.
- ———. *Fear: Essential Wisdom for Getting through the Storm*. First edition. New York: HarperOne, 2012.
- Schacht, Richard. "Husserlian and Heideggerian Phenomenology," Philosophical Studies 23, no. 5 (October 1972): 293-314.
- Schaeffer, Pierre. In Search of a Concrete Music. Trans. Christine North, and John Dack. California Studies in 20th-Century Music 15. Berkeley: University of California Press, 2012.
- ———. *Treatise on Musical Objects: Essays across Disciplines*. Trans. Christine North, and John Dack.California Studies in 20th-Century Music 20. Oakland, California: University of California Press, 2017.

- Smalley, Denis. "Space-Form and the Acousmatic Image." *Organised Sound* 12, no. 1 (April 2007): 35–58. https://doi.org/10.1017/S1355771807001665.
 - - —. "The Listening Imagination: Listening in the Electroacoustic Era." Contemporary Music Review 13, no. 2 (January 1996): 77–107. <u>https://doi.org/10.1080/07494469600640071</u>.
- Truax, Barry. "Electroacoustic Music and the Visual." *Académie Internationale de Musique Electroacoustique/Bourges* VIII, no. Relationships between audition and vision in the creation in Electroacoustic music (2005 2004): 135–140.
- Weiss, Gail, Ann V. Murphy, and Gayle Salamon, eds. 50 Concepts for a Critical Phenomenology. Evanston, Illinois: Northwestern University Press, 2020.
- Windsor, Luke. "Through and around the acousmatic: Tinterpretation of electroacoustic sounds." In Simon Emmerson (ed.), *Music, Electronic Music, and Culture*. Burlington, Vermont: Ashgate Publishing Companies, 2000, 7-35.
- Wishart, Trevor, and Simon Emmerson. *On Sonic Art*. New and rev. Ed. Contemporary Music Studies, v. 12. Amsterdam: Harwood Academic Publishers, 1996.
- Zahavi, Dan. *Husserl's Phenomenology*. Cultural Memory in the Present. Stanford, Calif: Stanford University Press, 2003.

PART II

UTTERANCES FOR PIERROT ENSEMBLE

J. Andrew Smith

<u>Utterances; Prelude Center/Welcome</u> For Violin, Cello, and Electronics

Preface

"Prelude Center/Welcome" is the opening movment of a longer cycle of pieces called *Utterances*, a body of pieces interested in simultaneously showcasing the subtle and beautiful timbral qualities of each instrument and the implications of a fundamental human action given shape and form. The totality of *Utterances* attempts to engage with acousmatic ideas in mixed music and find a meaningful praxis for people-centered music.

This movement is meant to be played before the complete collection of movements, welcoming the audience into the performance space and centering their attention on the sounds being played.

Notes For Performance

Technical requirements

This piece requires the following for the electronic component

- A computer (preferably a Mac) with at least 8GB of RAM running Cycling 74's Max version 8
 - Contact the composer at <u>andrewsmith16@my.unt.edu</u> to obtain a copy of the patch
- An audio interface with at least 1 microphone preamp
- One microphone suited to capturing violin performance
- At least 2 loudspeakers in a stereo configuration

<u>General</u>

This piece is designed to be extensively aleatoric, with each web being explored by the performers independently, listening only for tuning, response, and for the end of the piece. To end this movement, each performer should stop independently and wait for the electronics to fade.

<u>Notation</u>

For any questions about the notation or the techniques requested, please contact the composer at <u>andrewsmithi6@my.unt.edu</u>

Utterances Prelude; Center/Welcome

J. Andrew Smith



Utterances Prelude; Center/Welcome

J. Andrew Smith



J. Andrew Smith

<u>Utterances; Fear/Play</u>

For Clarinets, Flutes, and Electronics

Preface (tentative)

"Fear/Play" is part of a longer cycle of pieces called *Utterances*, a body of pieces interested in simultaneously showcasing the subtle and beautiful timbral qualities of each instrument and the implications of a fundamental human action given shape and form. The totality of *Utterances* attempts to engage with acousmatic ideas in mixed music and find a meaningful praxis for people-centered music.

This movement showcases the link between fear and play, both common experiences in every childhood crucial to development and growth. Play has been shown to be a vital therapeutic trauma processing tool for children, and this movement shows how play can be a safe vehicle for negative emotions. Play is also, not incidentally, the center of music as a discipline, reflecting the joyful exploration of a wide array of emotions that making music facilitates. Additionally, the flute and clarinet literally play, racing, fighting, interrupting and showing off.

Acknowledgements

This piece is dedicated to Anne Maker and Erin Cameron, the friends, collaborators, and inspiring women who inspired this piece and made it possible.

Notes For Performance

<u>Technical requirements</u>

This piece requires the following for the electronic component

- A computer (preferably a Mac) with at least 8GB of RAM running Cycling 74's Max version 8
 - Contact the composer at <u>andrewsmith16@my.unt.edu</u> to obtain a copy of the patch
- An audio interface with at least 1 microphone preamp
- One microphone suited to capturing violin performance
- At least 2 loudspeakers in a stereo configuration

<u>General</u>

This piece is designed to be flexible, with the electronics listening and adapting to the flute and clarinet performance. Rubato is encouraged as the performer explores the natural ebb and flow of the piece and should be used liberally. A good guideline for the overall duration of the piece is between 5-6 minutes. Deviations from these durations are expected and welcome.

Special care should be taken in this piece to balance it properly; the winds and the electronics should be matched so that it is difficult to tell where they end and the electronics begin. The flute and clarinet should be amplified sufficiently to clearly hear the minutiae of the sounds throughout the piece.

Notation

For any questions about the notation or the techniques requested, please contact the composer at <u>andrewsmith16@my.unt.edu</u>



Indications of t.r. as notated above indicate a tongue ram at the notated fingering, producing the lower pitch that's indicated.

shh

X shaped noteheads indicate noisy or airy sounds throughout. Where boxes appear, white boxes indicate completely noisy sounds, black boxes indicate pitched ordinary sounds, and half full boxes indicate a sound in between the two. Where syllables such as "shh" and "s" appear in the flute, they indicate those syllables should sound through the flute.



Where boxed figures occur, the performer is to repeat the indicated passage or a similar improvised one freely for the indicated duration. Where there is an indication of "interrupt" in one part, the second player is to interrupt the first player aggressively, with the first player stopping immediately and continuing to the next measure of the piece.

Spectral harmonics ca. 15"



Spectral harmonics are indicated as above, with the fundamental indicated by the note with a square notehead and graphic indication for the general quality of the sound. There should be a great deal of freedom, playfulness, and exploration in these moments throughout.



Sections marked "Racing" should be played as fast as possible with accuracy, playing faster than your duo partner. Whoever reaches the end first should clearly indicate it, then proceed to improvise first in the following passages. If both players feel that they "won" the race, they are welcome, and encouraged, to treat the improvisation as an argument about who actually won (using notes and musical gestures, not words).



This indicates harmonic glisses and/or spectral harmonics with the resultant harmonics indicated generally using the headless stems and rhythms.

The end of the piece should be totally improvised, with gestures, ideas, sounds, and notes found in the rest of the piece serving as a jumping off point and inspiration. The performers should always be responsive to one another, filling in gaps and bouncing ideas around as appropriate.

Fear/Play























J. Andrew Smith

Utterances; interlude Strive/Hope

For Piano and Electronics

Preface (tentative)

Interlude "Strive/Hope" is part of a longer cycle of pieces called *Utterances*, a body of pieces interested in simultaneously showcasing the subtle and beautiful timbral qualities of each instrument and the implications of a fundamental human action given shape and form. The totality of *Utterances* attempts to engage with acousmatic ideas in mixed music and find a meaningful praxis for people-centered music.

This movement serves as a bridge between the *Fear/Play* and the *Rage/Remit* movements of *Utterances*. As an interlude, "Strive/Hope" provides momentum and energy, connecting disparate ideas and works to point forward, yearning for more positive and empowering emotional spaces.

Acknowledgements

This piece is dedicated to Alvin Leung, my friend and colleague for whom it was written.

Notes For Performance

Technical requirements

This piece requires the following for the electronic component

- A computer (preferably a Mac) with at least 8GB of RAM running Cycling 74's Max version 8
 - Contact the composer at <u>andrewsmithr6@my.unt.edu</u> to obtain a copy of the patch
- An audio interface with at least 1 microphone preamp
- One microphone suited to capturing violin performance
- At least 2 loudspeakers in a stereo configuration

<u>General</u>

This piece is designed to be temporally flexible, with the indicated webs being explored freely within the time frames of no fewer than three minutes and no more than six minutes. Lines with no arrows are bi-directional, meaning that the performer can move to or from either box. Lines with arrows indicate a connection that only moves in one direction. In general, more time should be spent on webs with more boxes than on webs with fewer boxes, and the performer should endeavor to play every box at least once during a performance of this interlude.

For any questions about the notation or the techniques requested, please contact the composer at andrewsmith16@my.unt.edu
Utterances; Interlude Strive/Hope J. Andrew Smith



J. Andrew Smith

<u>Utterances; Rage/Remit</u> For Percussion and Electronics

Preface (tentative)

"Rage/Remit" is part of a longer cycle of pieces called *Utterances*, a body of pieces interested in simultaneously showcasing the subtle and beautiful timbral qualities of each instrument and the implications of a fundamental human action given shape and form. The totality of *Utterances* attempts to engage with acousmatic ideas in mixed music and find a meaningful praxis for people-centered music.

This movement is an outlet for rage and for finding forgiveness for others. This piece sees rage as a formless entity, akin to the desire to break things, and as determination, an anger driven force to channel that energy into something meaningful and sustaining.

Acknowledgements

This piece is dedicated to Jordan Walsh, my favorite collaborator and a dear friend. I hope performing this movement gives him as much catharsis as writing it did for me.

Notes For Performance

Technical requirements

This piece requires the following for the electronic component

- A computer (preferably a Mac) with at least 8GB of RAM running Cycling 74's Max version 8
 - Contact the composer at <u>andrewsmith16@my.unt.edu</u> to obtain a copy of the patch
- An audio interface with at least 1 microphone preamp
- One microphone suited to capturing violin performance
- At least 2 loudspeakers in a stereo configuration

<u>General</u>

This piece is designed to be flexible, with the electronics listening and adapting to the Percussion performance. Rubato is encouraged as the performer explores the natural ebb and flow of the piece and should be used liberally. A good guideline for the overall duration of the piece is between 9-10 minutes. Deviations from these durations are expected and welcome.

Special care should be taken in this piece to balance it properly; the Percussion and the electronics should be matched so that it is difficult to tell where they end and the electronics begin. The percussion should be amplified sufficiently to clearly hear the minutiae of the sounds throughout the piece.

<u>Notation</u>

For any questions about the notation or the techniques requested, please contact the composer at <u>andrewsmith16@my.unt.edu</u>



An X symbol in lieu of a time signature indicates a meterless section, where the performer should be flexible, dynamic, and quasi improvisatory throughout. X note heads indicate playing on the rim of the indicated instrument.

n	ЯŊ	er
r	чr	~

Square noteheads indicate rubbing the bass drum with a sheet of coarse construction paper. The squiggle symbol that follows indicates a circular motion.

pine cone ∧

The downward triangle indicates playing the bass drum by rubbing a pine cone on the surface. The pine cone should be coated with some kind of protective coating (like that can be found on pine cones sold as decorations in craft stores) This will prevent the pine cone from disintegrating too quickly and protect the drum's head from being damaged.

SC.

The slashed noteheads indicate scrapes on the appropriate drums. If the indicated drum isn't suitable for scrapes, an alternative drum can be selected where appropriate.

$\frac{116}{2000} \text{ roll marble in bass drum}$

Circular noteheads indicate rolling a marble in the bass drum. A heavy, shooter-style marble is preferred, since it maintains its momentum longer than the smaller marbles.

drop marble⁵ on drum

This indicates to drop the marble onto the bass drum while it's vibrating after striking it. This will make a kind of intermittent bouncing/buzzing sound.



0

The half rounded notehead indicates rubbing the drum with a superball mallet.

Utterances; Rage/Remit for Percussion and Live Electronics

J. Andrew Smith

















J. Andrew Smith

Utterances; Love/Grief

For Violin and Electronics

Preface (tentative)

"Contemplating death has always been a subject that leads me back to love. . . We do not have to love. We choose to love." -bell hooks, all about love

"Love/Grief" is part of a longer cycle of pieces called Utterances, a body of pieces interested in simultaneously showcasing the subtle and beautiful timbral qualities of each instrument and the implications of a fundamental human action given shape and form. The totality of Utterances attempts to engage with acousmatic ideas in mixed music and find a meaningful praxis for people-centered music.

This movement is particularly special, written in the months leading up to and immediately after my engagement. Given my deep and abiding love for my fiancée, this piece is naturally saturated with gratitude and adoration for her.

This piece is also a reflection on loss, and they ways that love and grief are inextricably connected. We grieve because we love, and great grief comes from a great love.

Acknowledgements

This piece is dedicated to Anna Wright, the love of my life and the greatest source of comfort and joy I have ever known.

It is also dedicated to Vernie Shelnutt, known to me as "Vmmbs," who I still love dearly and grieve every day.

Special thanks goes to Mia Detwiler, the brilliant violinist and gracious collaborator for whom this piece was written.

Notes For Performance

Technical requirements

This piece requires the following for the electronic component

- A computer (preferably a Mac) with at least 8GB of RAM running Cycling 74's Max version 8 • Contact the composer at <u>andrewsmith16@my.unt.edu</u> to obtain a copy of the patch
- An audio interface with at least 1 microphone preamp
- One microphone suited to capturing violin performance •
- At least 2 loudspeakers in a stereo configuration

<u>General</u>

This piece is designed to be temporally flexible, with the electronics listening and adapting to the violinist's performance. A tempo is indicated multiple times to give the performer a sense of context for the general speed of the gestures and notes, not to indicate a rigid tempo. Rubato is encouraged as the performer explores the natural ebb and flow of the piece and should be used liberally. A good guideline for the overall duration of the piece is between 9-11 minutes, with each system taking around 20 seconds at the slower tempo and 15 seconds at the faster tempo. Deviations from these durations are expected and welcome.

Special care should be taken in this piece to balance it properly; the violin and the electronics should be matched so that it is difficult to tell where the violin ends and the electronics begin. The violin should be amplified sufficiently to clearly hear the minutiae of the sounds at the beginning and end of the piece.

<u>Notation</u>

For any questions about the notation or the techniques requested, please contact the composer at <u>andrewsmith16@my.unt.edu</u>

m.s.t.= Molto sul tasto, a sul tasto that is higher on the fingerboard than usual.

s.t.= Sul tasto

ord.

p.s.p.= poco sul ponticello, a slight sul pont.

s.p.= sul ponticello

m.s.p.= molto sul ponticello, an exaggerated sul pont. extremely close to or on the bridge

V. bow is short for vertical bowing, where the bow is scraped parallel to the strings rather than drawn perpendicularly. This can produce a range of sounds from a stuttering noisy sound to a harsh rasp, depending on the context. The vertical bowing at the beginning of the piece should produce a kind of raspy, broken glissando.

slow v. bow ------ ord. ----- molto flaut.

Arrows indicate a transition from one technique or state to another. This is often a gradual shift in bow position, weight, or the speed of a trill or tremolo. Dotted arrows are used if the sound will be interrupted or broken by the indicated technique. (Such as vertical bowing in this case.)

Boxes indicate the noisy or harsh quality of the sound usually referred to as overpressure.

Totally filled boxes indicate the maximum amount of noisy overpressure

□ Totally empty boxes indicate ordinary playing pressure and sound.

Halfway filled boxes indicate a state somewhere in the middle, with a more significant pitch component than a filled box and a more significant noise component than a empty box.

stuttering				
extremely gritty		dissolve	airy noise	
slow v. bow	•••••• ord.		molto flaut.	
m.s.t.	s.t.			
\$ <u>*</u>			•	
<i>n</i>	<i>pp</i>			
Multiple techniques may be tra	nsitioning through a single ar	row. In the above exampl	le, the performer should n	nove from an overpre
sul tasto sound to an ordinary p	pressure and bowed sul tasto s	sound to an airy flautando	o sound.	1
		v	1	
W natahaada ana waad ta i	ndicate finance director where	the resultent sound is not	usly using an dishould som	
• A noteneads are used to I	indicate ingered notes where	the resultant sound is pu	rely holse and should con	tain intre to no mean
present, mute the malcated stri	ing with multiple inigers.			
slow —	→ fast			
v _				
(•)	<i>n</i>			
Trills should always begin on th	he larger note, with the trill n	ote indicated in parenthe	sis. Trills are often moving	g large distances betv
Where "slow" and "fast" appear	r, the trill should be played at	, the appropriate speed an	nd either sped up or slowe	ed down in context.
	I U			
IV				
ord.				
tr		····· tr	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~
	× × × × × × × × × × × × × × × × × × ×			
(\) (\) (\) (\)			(♦ ^{\$})	
mp		·		
Where trills indicate two harmo	onic nodes such as above, the	trill should move betwee	en the large note harmonic	e and the indicated d
nodes on the same string are p	ressed simultaneously. In the	above example, both fing	ers should be on string IV	7.)
nouss on the same string are p		above enample, beth hing		•)



essure, stuttering, vertical bowed, molto

ningful pitch. Where multiple notes are

ween harmonics and their open strings.

louble harmonic (where two harmonic

harm. gliss. $p \xrightarrow{d_{\overline{\bullet}}}$

In instances where a harmonic glissando is indicated at the same time as a trill, the trilled note should remain the open string, while the other note gradually moves in the appropriate direction.



Figures such as at cue 4 above indicate the performance of a relatively unstable harmonic that should change depending on the bow speed, pressure, and placement. These should be improvised to produce a variety of mercurial, timbral harmonics and airy sounds.



This figure indicates the same technique with an added circular bowing motion.



Any indication of "let ring" indicates that the open string or harmonic shouldn't be damped after the note is played and allowed to ring naturally after the bow is lifted.



flip hand around

This is used to indicate a potential place for the performer to flip their hand position so that their palm is closest to string IV rather than string I. This is only a suggestion depending on the performer's comfort level and can be executed earlier or later in the passage if necessary.

IV rapid double-harmonic gliss.

ſſ

This indicates a double harmonic glissando using two fingers on the same string, both using harmonic pressure. This should result in an unpredictable and rapid harmonic gliss. The performer should experiment with different finger placements during the gliss. to find a suitable sound, since the amount of space between the fingers will produce different harmonics depending on the register.



This indicates a crunchy accented sound, where a quick vertical bow is transitioned rapidly to ord. bowing.











125

J. Andrew Smith

Utterances; Connection I For Pierrot Ensemble

Preface (tentative)

Connection I is the culmination and finale of a longer cycle of pieces called *Utterances*, a body of pieces interested in simultaneously showcasing the subtle and beautiful timbral qualities of each instrument and the implications of a fundamental human action given shape and form. The totality of *Utterances* attempts to engage with acousmatic ideas in mixed music and find a meaningful praxis for people-centered music.

Connection I assembles and transforms ideas from each of the preceding movements, recontextualizing them and presenting them with new orchestrations and from new perspectives. *Connection* I fulfills its function as an utterance by connecting intrinsic musical ideas from each of the previous movements and illustrates their cohesion as a part of a larger musical whole, much how loving, grieving, raging, forgiving, striving, hoping, fearing, playing, centering, and welcoming are parts of my own identity as a musician.

Acknowledgements

This piece is dedicated to Garrison, Erin, Anne, Mia, Kourtney, Jordan, and Alvin, the musicians who made it a reality and served as my inspiration.

Special thanks are due to Jon Nelson and Andrew Chung, my teachers and mentors through the process of composing this piece and assembling the philosophical framework that inspired it.

Final thanks are due to Anna, my fiancée and the love of my life whose support and care made Utterances possible.

Notes For Performance

General

All tempi for this piece are approximate and should be adjusted to best suit the concert space and the performers. The voice part is designed to be sung amplified, enough to be clearly audience without shouting, but not audible above the rest of the ensemble. The voice does not function as a soloist, but rather as an equal member of the group. The voice part was written by the composer for his own voice and requires extensive manipulation of the vocal apparatus. Vocalists interested in learning this piece should contact the composer at andrewsmith16@my.unt.edu for more information about the specific vocal techniques required to perform this piece.

Boxed figures indicate improvisation over the course of the measures indicated by the following arrow. The improvisations may vary in intensity or dynamic over time.



Feathered beams with a rhythmic indication in brackets above indicate the amount of time over which the accelerando or ritardando gesture should be performed. The number of notes indicated is less important that the integrity of the gesture over the specified duration.



The race that occurs before letter C should be performed as rapidly as possible by the flute and percussion players, without regard for alignment or exactitude of rhythm. The passage, should, however, still be performed as accurately as possible while remaining competitive and blisteringly fast. When the first instrument reaches letter C, the piano and voice should join, holding and waiting the appropriate amount of time until the second player finishes the race. At that time, measure 37 should continue in time as normal.

Notation

For any questions about the notation or the techniques requested, please contact the composer at andrewsmith16@my.unt.edu

Strings

m.s.t.= Molto sul tasto, a sul tasto that is higher on the fingerboard than usual.

s.t.= Sul tasto

ord.

p.s.p.= poco sul ponticello, a slight sul pont.

s.p.= sul ponticello

m.s.p.= molto sul ponticello, an exaggerated sul pont. extremely close to or on the bridge

Arrows indicate a transition from one technique or state to another. This is often a gradual shift in bow position, weight, or the speed of a trill or tremolo.

Boxes indicate the noisy or harsh quality of the sound usually referred to as overpressure.

. Totally filled boxes indicate the maximum amount of noisy overpressure

☐ Totally empty boxes indicate ordinary playing pressure and sound.

Halfway filled boxes indicate a state somewhere in the middle, with a more significant pitch component than a filled box and a more significant noise component than aa empty box.

X noteheads are used to indicate fingered notes where the resultant sound is purely noise and should contain little to no meaningful pitch. Where multiple notes are present, mute the indicated string with multiple fingers.

unstable harmonic vary bow speed and pressure



Harmonics labeled "unstable" are nodes that produce unpredictable harmonic results on the specified string. This instability should be emphasizes by changing bow speed, pressure, and placement to produce random harmonic results.

Winds

X noteheads indicate a noise comprised primarily of airy, non-periodic sound and should always be accompanied by a white box indicating air sounds. Solid black boxes following white boxes and arrows indicate a gradual transition from airy sound to standard playing.



There are two dyad multiphonics present at the beginning of this movement for the bass clarinet with their sounding pitches indicated. The fingerings for these multiphonics are included here and in the bass clarinet part where they appear in context. These fingerings originate from Heather Roche's fantastic website. <u>https://heatherroche.net/2014/08/08/on-close-dyad-multiphonics-for-bass-clarinet/</u>





Triangular noteheads indicate a tongue pizzicato in the flute and a slap tongue in the bass clarinet



Diamond noteheads above a triangular notehead indicate a tongue ram in the flute, with the diamond indicating the fingered pitch and the triangle indicating the sounding pitch.



Square noteheads in the bass clarinet indicate spectral multiphonics; if not specified, the performer should pick a multiphonic that matches the indicated dynamic.



Percussion The percussion key is laid out as below.





p	ap	eı
-	-	

Square noteheads indicate rubbing the bass drum with a sheet of coarse construction paper. The squiggle symbol that follows indicates a circular motion.



The downward triangle indicates playing the bass drum by rubbing a pine cone on the surface. The pine cone should be coated with some kind of protective coating (like that can be found on pine cones sold as decorations in craft stores) This will prevent the pine cone from disintegrating too quickly and protect the drum's head from being damaged.



Circular noteheads indicate rolling a marble in the bass drum. A heavy, shooter-style marble is preferred, since it maintains its momentum longer than the smaller marbles.



The half rounded notehead indicates rubbing the drum with a superball mallet.

Piano

Where "scrape with pick" appears, the pianist should scrape the winding of the indicated string with a plastic pick or card.







This passage should be performed by muting the indicated strings with the palm of the left hand or other easily removable implement to produce a percussive, woodblock-esque sound.
























<u> </u>				



•	
stable harmonic ry bow speed and pressure co	
•	













-	-	



